

| 1                                                                       | 2                     | 3                                      | 4 | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6 |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|-------------------------------------------------------------------------|-----------------------|----------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------|--|--|-----------------------------------------|--|-----|------------------------------------------|--|------|---------------------------|--|----------------------------------------|--------------------------|--|-----|--------------------------------------------|--|-----|-------------------------------------------------------------------------|--|------|---------------------------------------------|--|-----|-------------------------------------------------------------|--|--|-------------------------------------------|----------------------|-------------|------------------|-------------|-------------------------------------------------|---------------------|-------------|-------------------------------------------------|-----------------------|-------------|
|                                                                         |                       |                                        |   | <table><tr><th colspan="3">Specifications/ Specyfikacja wyrobu</th></tr><tr><td colspan="2">Nominal voltage/ Napięcie nominalne [V]</td><td>3,6</td></tr><tr><td colspan="2">Typical capacity/ Pojemność typowa [mAh]</td><td>1700</td></tr><tr><td colspan="2">Size/ Wymiar pakietu [mm]</td><td>According to the drawing/ w.g. Rysunku</td></tr><tr><td colspan="2">Weight/ Masa pakietu [g]</td><td>100</td></tr><tr><td colspan="2">Typical charge/ Ładowanie standardowe [mA]</td><td>160</td></tr><tr><td colspan="2">Maximum continuous discharge current/Max. ciągły prąd rozładowania [mA]</td><td>5100</td></tr><tr><td colspan="2">Discharge cut-off voltage/ Końcowe napięcie</td><td>1,8</td></tr><tr><td colspan="2">Pulse discharge current./Prąd w impulsie, wartość max. [mA]</td><td></td></tr><tr><td rowspan="2">Charge temperature/ Temperatura ładowania</td><td>Typical/ Standardowo</td><td>0°C do 40°C</td></tr><tr><td>Rapid/ Szybkiego</td><td>0°C do 35°C</td></tr><tr><td>Discharge temperature/ Temperatura rozładowania</td><td>Continous/ Ciągłego</td><td>0°C do 40°C</td></tr><tr><td>Storage temperature/ Temperatura przechowywania</td><td>Recommended/ Zalecana</td><td>5°C do 20°C</td></tr></table> |   | Specifications/ Specyfikacja wyrobu |  |  | Nominal voltage/ Napięcie nominalne [V] |  | 3,6 | Typical capacity/ Pojemność typowa [mAh] |  | 1700 | Size/ Wymiar pakietu [mm] |  | According to the drawing/ w.g. Rysunku | Weight/ Masa pakietu [g] |  | 100 | Typical charge/ Ładowanie standardowe [mA] |  | 160 | Maximum continuous discharge current/Max. ciągły prąd rozładowania [mA] |  | 5100 | Discharge cut-off voltage/ Końcowe napięcie |  | 1,8 | Pulse discharge current./Prąd w impulsie, wartość max. [mA] |  |  | Charge temperature/ Temperatura ładowania | Typical/ Standardowo | 0°C do 40°C | Rapid/ Szybkiego | 0°C do 35°C | Discharge temperature/ Temperatura rozładowania | Continous/ Ciągłego | 0°C do 40°C | Storage temperature/ Temperatura przechowywania | Recommended/ Zalecana | 5°C do 20°C |
| Specifications/ Specyfikacja wyrobu                                     |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Nominal voltage/ Napięcie nominalne [V]                                 |                       | 3,6                                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Typical capacity/ Pojemność typowa [mAh]                                |                       | 1700                                   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Size/ Wymiar pakietu [mm]                                               |                       | According to the drawing/ w.g. Rysunku |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Weight/ Masa pakietu [g]                                                |                       | 100                                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Typical charge/ Ładowanie standardowe [mA]                              |                       | 160                                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Maximum continuous discharge current/Max. ciągły prąd rozładowania [mA] |                       | 5100                                   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Discharge cut-off voltage/ Końcowe napięcie                             |                       | 1,8                                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Pulse discharge current./Prąd w impulsie, wartość max. [mA]             |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Charge temperature/ Temperatura ładowania                               | Typical/ Standardowo  | 0°C do 40°C                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         | Rapid/ Szybkiego      | 0°C do 35°C                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Discharge temperature/ Temperatura rozładowania                         | Continous/ Ciągłego   | 0°C do 40°C                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
| Storage temperature/ Temperatura przechowywania                         | Recommended/ Zalecana | 5°C do 20°C                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |
|                                                                         |                       |                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   |                                     |  |  |                                         |  |     |                                          |  |      |                           |  |                                        |                          |  |     |                                            |  |     |                                                                         |  |      |                                             |  |     |                                                             |  |  |                                           |                      |             |                  |             |                                                 |                     |             |                                                 |                       |             |