|  | 22 levels, 231 transitions  |   |  |
|--|---|---|--|
|  |   |   | $9.0 \times 10^{-1}  s^{-1}  @  228.0  \text{nm}$  |
|  | $7.8 \times 10^{-1}  s^{-1}  @  430.8  \text{nm}$ $7.4 \times 10^{-1}  s^{-1}  @  420.4  \text{nm}$           |   |  |
|  | $4.1 \times 10^{-1}  s^{-1}  $ © 579.4 nm   |   | 5.5 × 10 <sup>-1</sup> s <sup>-1</sup> @ 286.7 nm  |
|  |   | 5   | $4.0 \times 10^{-1}  s^{-1}  @  459.2  \text{nm}$<br>$3.4 \times 10^{-1}  s^{-1}  @  231.5  \text{nm}$ |
|  | 2.3 × 10 <sup>-1</sup> s <sup>-1</sup> @ 1564.2 nm  |   | 2.8 × 10 <sup>-1</sup> s <sup>-1</sup> @ 293.6 nm  |
|  | 1.9 × 10 <sup>-1</sup> s <sup>-1</sup> @ 427.9 nm   |   | 2.2 × 10 <sup>-1</sup> s <sup>-1</sup> @ 467.0 nm  |
|  | $1.9 \times 10^{-1}  s^{-1}  @  427.9  \text{nm}$<br>$1.8 \times 10^{-1}  s^{-1}  @  1600.4  \text{nm}$       |   |  |
|  |   |   | $1.6 \times 10^{-1}  s^{-1}  @ 229.6  \text{nm}$   |
|  | $1.6 \times 10^{-1}  s^{-1}  @  580.4  \text{nm}$   | 5   | 1.6 × 10 <sup>-1</sup> s <sup>-1</sup> @ 466.7 nm  |
|  |   | 1.5 × 10 <sup>-1</sup> s <sup>-1</sup> @ 504.9 nm   | 1.6 × 10 <sup>-1</sup> s <sup>-1</sup> @ 174.0 nm  |
|  |   | 1.5 × 10 <sup>-1</sup> s <sup>-1</sup> @ 504.9 nm   | 1.4 × 10 <sup>-1</sup> s <sup>-1</sup> @ 171.1 nm  |
|  | 1.3 × 10 <sup>-1</sup> s <sup>-1</sup> @ 2821.5 nm<br>1.3 × 10 <sup>-1</sup> s <sup>-1</sup> @ 1584.9 nm      |   |  |
|  | 1.3×10 <sup>-1</sup> s <sup>-1</sup> @ 608.7 nm   | $[1.3 \times 10^{-1}  s^{-1}  @  264.1  \text{nm}]$   |  |
|  |   | $1.3 \times 10^{-1}  s^{-1}  @  264.1  \text{nm}$   | $1.2 \times 10^{-1}  s^{-1}  @  230.0  \text{nm}$  |
|  | 1.2 × 10 <sup>-1</sup> s <sup>-1</sup> @ 601.8 nm   | $9.4 \times 10^{-2}  s^{-1}  @  485.3  \text{nm}$   | 7  |
|  | 9.1 × 10 <sup>-2</sup> s <sup>-1</sup> @ 494.0 nm   | $9.4 \times 10^{-2}  s^{-1}$ @ 485.3 nm   |  |
|  | 8.9 × 10 <sup>-2</sup> s <sup>-1</sup> @ 1679.0 nm  |   | $8.7 \times 10^{-2}  s^{-1}  @  233.6  \text{nm}$  |
|  | 8.5 × 10 <sup>-2</sup> s <sup>-1</sup> @ 442.4 nm   | 7 2 × 10=2 c=1 0 514 1 2 3  | 3 @ 233.6 nm   |
|  |   | 7.8 × 10 <sup>-2</sup> s <sup>-1</sup> @ 514.1 nm   | $\frac{6.5 \times 10^{-2}  s^{-1}}{6.5 \times 10^{-2}  s^{-1}} = 265.9  \text{nm}$                     |
|  |   | $\begin{array}{c} 6.3 \times 10^{-2} \ s^{-1} \ @ \ 280.5 \ nm \\ \hline \\ 6.3 \times 10^{-2} \ s^{-1} \ @ \ 280.5 \ nm \\ \end{array}$      | 7  |
|  |   | $5.2 \times 10^{-2}  s^{-1}  @  274.6  \text{nm}$   | 5.2 × 10 <sup>-2</sup> s <sup>-1</sup> @ 466.7 nm  |
|  |   | 5.2 × 10 <sup>-2</sup> s <sup>-1</sup> @ 274.6 nm}  | $5.1 \times 10^{-2} s^{-1}$ @ 175.3 nm   |
|  | 4.8 × 10 <sup>-2</sup> s <sup>-1</sup> @ 1161.6 nm  |   | $5.1 \times 10^{-2}  s^{-1}  @  175.3  \text{nm}$  |
|  | $4.2 \times 10^{-2}  s^{-1}$ @ 1786.5 nm<br>$4.2 \times 10^{-2}  s^{-1}$ @ 1786.5 nm                          |   |  |
|  | $3.9 \times 10^{-2}  s^{-1}$ @ 1815.4 nm<br>$3.8 \times 10^{-2}  s^{-1}$ @ 1793.7 nm                          | 5   | 7  |
|  | 3.1 × 10 <sup>-2</sup> s <sup>-1</sup> @ 504.5 nm   | $3.1 \times 10^{-2}  s^{-1}$ @ 272.6 nm   |  |
|  | $3.1 \times 10^{-2}  s^{-1}  @  504.5  \text{nm}$<br>$2.9 \times 10^{-2}  s^{-1}  @  1052.6  \text{nm}$       |   |  |
|  | 2.4 × 10 <sup>-2</sup> s <sup>-1</sup> @ 8450.1 nm  | $2.4 \times 10^{-2}  s^{-1}$ @ 277.3 nm   |  |
|  |   | $2.4 \times 10^{-3} = @ 277.3 \text{ mm}$<br>$2.3 \times 10^{-2} s^{-1} @ 270.0 \text{ nm}$<br>$2.3 \times 10^{-2} s^{-1} @ 270.0 \text{ nm}$ |  |
|  | 2.1 × 10 <sup>-2</sup> s <sup>-1</sup> @ 1202.4 nm<br>2.1 × 10 <sup>-2</sup> s <sup>-1</sup> @ 3668.4 nm      |   |  |
| $2.0 \times 10^{-2}  s^{-1}$ @ 12012.9 nm                        |   |   | $2.0 \times 10^{-2}  s^{-1}  @  172.9  \text{nm}$  |
|  | $1.8 \times 10^{-2}  s^{-1}  @  450.8  \text{nm}$<br>$1.8 \times 10^{-2}  s^{-1}  @  450.8  \text{nm}$        |   |  |
|  | 1.5 × 10 <sup>-2</sup> s <sup>-1</sup> @ 1096.6 nm  | $1.6 \times 10^{-2}  s^{-1}  @ 742.6  \text{nm}$  |  |
|  | 1.5 × 10 <sup>-2</sup> s <sup>-1</sup> @ 4235.8 nm  |   |  |
| 1.3 × 10 <sup>-2</sup> s <sup>-1</sup> @ 16362.2 nm              | 1.4 × 10 <sup>-2</sup> s <sup>-1</sup> @ 553.7 nm   | 5   |  |
|  | $-\frac{8.9 \times 10^{-3} \ s^{-1} \ @ 12221.7 \ nm}{3.9 \times 10^{-3} \ s^{-1}}$                           |   | 1.2 × 10 <sup>-2</sup> s <sup>-1</sup> @ 268.5 nm  |
|  |   | $7.8 \times 10^{-3} \ s^{-1}$ @ 723.6 nm<br>$7.8 \times 10^{-3} \ s^{-1}$ @ 723.6 nm  |  |
|  | 7.6 × $10^{-3}$ s <sup>-1</sup> @ 1021.2 nm<br>7.6 × $10^{-3}$ s <sup>-1</sup> @ 12485.5 nm                   |   |  |
| 4.8 × 10 <sup>-3</sup> s <sup>-1</sup> @ 23863.7 nm              | 4.9 × 10 <sup>-3</sup> s <sup>-1</sup> @ 424.3 nm   |   |  |
| $4.8 \times 10^{-3}  s^{-1}                                    $ |   | $4.5 \times 10^{-3}  s^{-1} @ 814.2  \text{nm}$   |  |
|  |   |   | $4.5 \times 10^{-3}  s^{-1}  @  174.1  \text{nm}$<br>$4.5 \times 10^{-3}  s^{-1}  @  174.1  \text{nm}$ |
|  | $\frac{4.4 \times 10^{-3}  s^{-1}  @  14044.8  \text{nm}}{2.5 \times 10^{-3}  s^{-1}  @  26261.3  \text{nm}}$ |   |  |
|  | 2.4 × 10 <sup>-3</sup> s <sup>-1</sup> @ 439.8 nm}  |   | 2.4 × 10 <sup>-3</sup> s <sup>-1</sup> @ 283.7 nm  |
|  |   |   | 1.8 × 10 <sup>-3</sup> $s^{-1}$ @ 274.6 nm<br>1.4 × 10 <sup>-3</sup> $s^{-1}$ @ 242.5 nm               |
|  |   | $1.4 \times 10^{-3}  s^{-1}  @  453.0  \text{nm}$<br>$1.3 \times 10^{-3}  s^{-1}  @  631.9  \text{nm}$  |  |
|  | 1.2 × 10 <sup>-3</sup> $s^{-1}$ @ 684.7 nm} $= 8.7 \times 10^{-4} s^{-1}$ @ 14044.6 nm}                       | 6   |  |
|  |   | $\begin{array}{c} 6.2 \times 10^{-4}  s^{-1}  @  699.5  \text{nm} \\ \hline 6.2 \times 10^{-4}  s^{-1}  @  699.5  \text{nm} \\ \end{array}$   |  |
|  | 5.9 × 10 <sup>-4</sup> s <sup>-1</sup> @ 34175.3 nm   |   | 5.9 × 10 <sup>-4</sup> s <sup>-1</sup> @ 296.8 nm  |
|  | 5.8 × 10 <sup>-4</sup> s <sup>-1</sup> @ 484.5 nm<br>5.8 × 10 <sup>-4</sup> s <sup>-1</sup> @ 484.5 nm        |   | 250.011113   |
|  | 3.0 × 10 3 @ 404.3 IIII}  | 5 1 x 10 <sup>-4</sup> c <sup>-1</sup> @ 29261 7 pm   | $5.4 \times 10^{-4}  s^{-1}  $ @ 27178.8 n   |
|  |   | $5.1 \times 10^{-4}  s^{-1}  @  28261.7  \text{nm}$<br>$5.1 \times 10^{-4}  s^{-1}  @  28262.9  \text{nm}$                                    |  |
|  | 5.0 × 10 <sup>-4</sup> s <sup>-1</sup> @ 714.6 nm<br>4.9 × 10 <sup>-4</sup> s <sup>-1</sup> @ 437.5 nm        |   |  |
|  | 4.9 × 10 <sup>-4</sup> s <sup>-1</sup> @ 437.5 nm   | $1.5 \times 10^{-4}  s^{-1}  @  445.9  \text{nm}$   |  |
|  | 1.4 × 10 <sup>-4</sup> s <sup>-1</sup> @ 1476.2 nm  | 1.5 × 10 <sup>-4</sup> s <sup>-1</sup> @ 445.9 nm   |  |
|  | $1.2 \times 10^{-4}  s^{-1}  @  700.0  \text{nm}$<br>$8.3 \times 10^{-5}  s^{-1}  @  736.7  \text{nm}$        |   |  |
|  | 8.3 × 10 <sup>-5</sup> s <sup>-1</sup> @ 736.7 nm   | $8.0 \times 10^{-5}  s^{-1}  @  459.1  \text{nm}$   |  |
|  |   |   |  |