

Table 1. Photophysical Data for [1Y]PF<sub>6</sub>, [2Y]BF<sub>4</sub>, [2G]BF<sub>4</sub>, [3Y]BF<sub>4</sub>, and [3G]BF<sub>4</sub>•H<sub>2</sub>O

| Complex                                   | Absorption <sup>a</sup><br>$\lambda_{\max}$ [nm]<br>( $\epsilon_{\max}$ [dm <sup>3</sup> mol <sup>-1</sup> cm <sup>-1</sup> ]) | Emission <sup>b</sup><br>$\lambda_{\max}$ [nm] ( $\tau$ [ms])                                    | $\Phi_{\text{em}}$ <sup>c</sup> |
|---|--|--|---------------------------------|
| [1Y]PF <sub>6</sub>                       | 262 (24000), 285 sh,<br>321 (11900), 387 (5400)  | 560 ( $\tau_1 = 0.17$ ( $A_1 = 0.54$ ), $\tau_2 = 0.52$ ( $A_2 = 0.46$ )) <sup>d</sup>           | 0.47                            |
| [2Y]BF <sub>4</sub>                       | 262 (37800), 282 sh,   | 582 ( $\tau_1 = 0.37$ ( $A_1 = 0.65$ ), $\tau_2 = 0.66$ ( $A_2 = 0.35$ )) <sup>d</sup>           | 0.38                            |
| [2G]BF <sub>4</sub>                       | 320 (18300), 388 (8400)  | 468, 495, 520 ( $\tau_1 = 1.82$ ( $A_1 = 0.51$ ), $\tau_2 = 4.49$ ( $A_2 = 0.49$ )) <sup>d</sup> | 0.44                            |
| [3Y]BF <sub>4</sub>                       | 259 (67300), 295 sh,   | 550 ( $\tau_1 = 0.21$ ( $A_1 = 0.53$ ), $\tau_2 = 0.54$ ( $A_2 = 0.47$ )) <sup>d</sup>           | 0.38                            |
| [3G]BF <sub>4</sub> •<br>H <sub>2</sub> O | 321 (23200), 387 (11300)   | 465, 497, 528 <sup>e</sup>   | -                               |

<sup>a</sup> In acetonitrile at 298 K. <sup>b</sup> In the solid state at 298 K. <sup>c</sup> Emission quantum yield in the solid state. <sup>d</sup> Emission decay curve was analyzed by the equation ( $I(t) = A_1\exp(-t/\tau_1) + A_2\exp(-t/\tau_2)$ ) using the nonlinear least-squares method. <sup>e</sup> Measured under benzonitrile vapor.