## Supporting Informations for

## A Turn-On Fluorescent Chemosensor for Selective Responses of

# **Copper(II)** ion pairs

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**1. Figure S1** Absorption spectra of **TIPA1** upon addition of increasing amounts of  $Cu(ClO_4)_2$ .



 Figure S2 Fluorescence spectra of TIPA1 upon addition of increasing amounts of Cu(NO<sub>3</sub>)<sub>2</sub>.



**3. Figure S3** Fluorescence spectra of **TIPA1** upon the addition of 15 eq CuCl<sub>2</sub> (top picture) and Cu(AcO)<sub>2</sub> (bottom picture).



**4. Figure S4** Fluorescence spectra of **TIPA1** upon the addition of 20 eq NaClO<sub>4</sub> (top picture) and NaNO<sub>3</sub> (bottom picture).



**5. Figure S5** Fluorescence spectra of **TIPA2** upon the addition of 15 eq CuCl<sub>2</sub> (top picture) and Cu(AcO)<sub>2</sub> (bottom picture).



6. Figure S6 Partial <sup>1</sup>H-NMR spectra for (a) TIPA1+Cu(NO<sub>3</sub>)<sub>2</sub> (sufficit quantum), (b) TIPA1 and (c) TIPA1+NaClO<sub>4</sub> (sufficit quantum).



### 7. Figure S7 Mass spectra of TIAP1+Cu(ClO<sub>4</sub>)<sub>2</sub> (top picture) and TIAP1+Cu(NO<sub>3</sub>)<sub>2</sub>

(bottom picture).



8. Figure S8 <sup>1</sup>H-NMR spectra of TIPA1.



9. Figure S9 <sup>13</sup>C-NMR spectra of TIPA1.



10. Figure S10 Mass spectra of TIPA1.





**11. Figure S11** <sup>1</sup>H-NMR spectra of **TIPA2**.



12. Figure S12 <sup>13</sup>C-NMR spectra of TIPA2.



13. Figure S13 Mass spectra of TIPA2.



14. Figure S14 <sup>1</sup>H-NMR spectra of 2.



**15. Figure S15**. <sup>1</sup>H-NMR spectra of **4**.



**16. Figure S16** <sup>1</sup>H-NMR spectra of **6**.



## 17. Figure S17 <sup>1</sup>H-NMR spectra of 7.

