

Supplementary Information for  
**Bisquinoline-based fluorescent zinc sensors**

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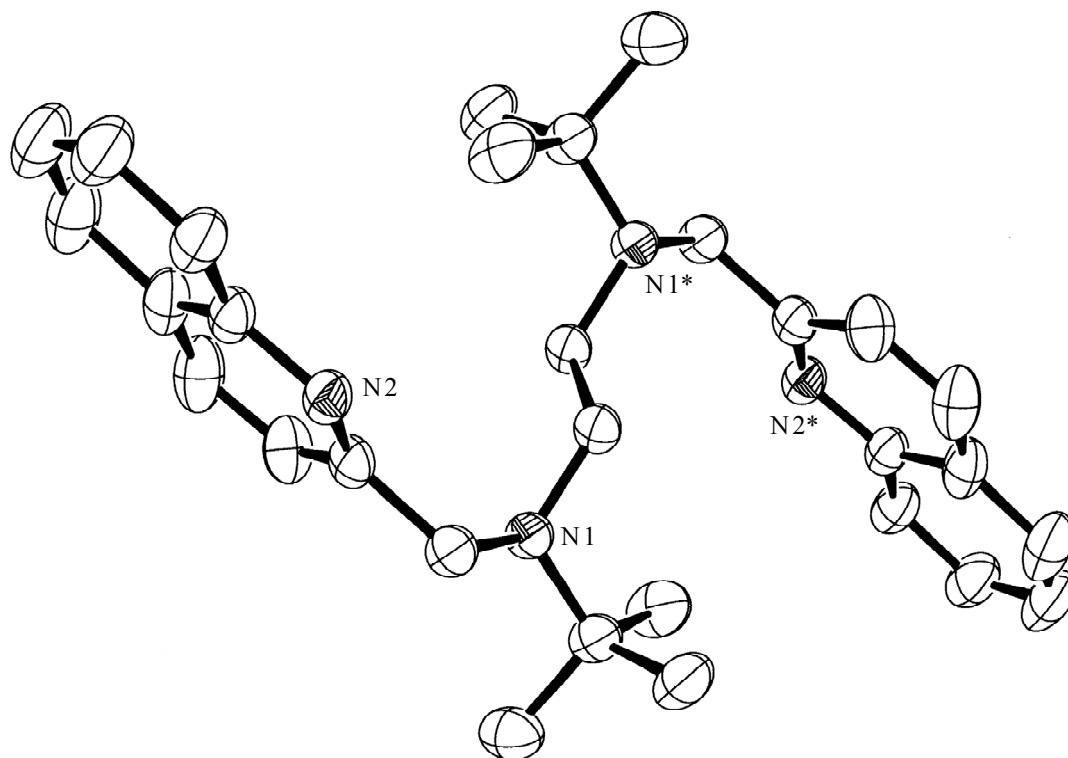
**Table S1.** Crystallographic Data for BQD*t*BEN

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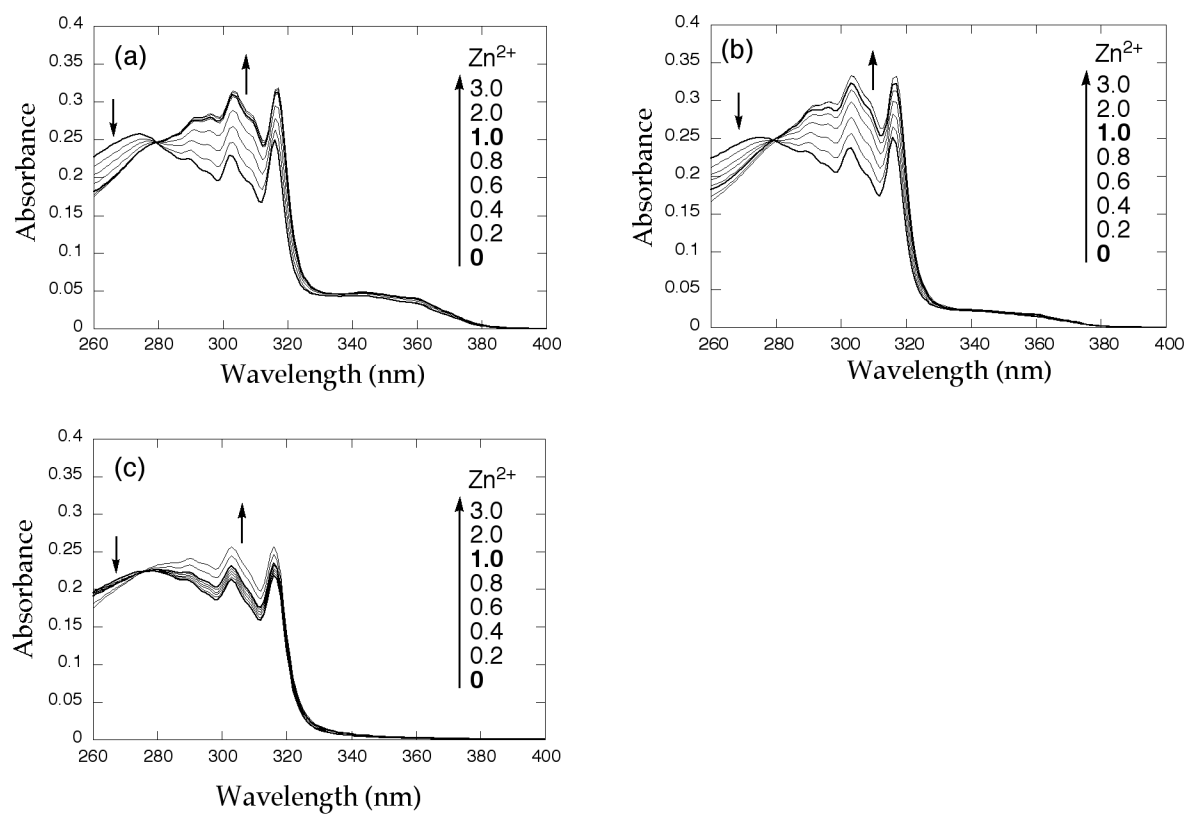
CCDC no.	710279
Formula	C <sub>30</sub> H <sub>38</sub> N <sub>4</sub>
FW	454.66
Crystal System	monoclinic
Space group	C2/ <i>c</i>
<i>a</i> , Å	36.380(2)
<i>b</i> , Å	12.3584(5)
<i>c</i> , Å	11.9292(7)
$\alpha$ , deg	90
$\beta$ , deg	88.203(7)
$\gamma$ , deg	90
<i>V</i> , Å <sup>3</sup>	5313.5(5)
<i>Z</i>	8
<i>D</i> <sub>calc</sub> , g cm <sup>-3</sup>	1.137
$\mu$ , cm <sup>-1</sup>	0.67
2 $\theta$ <sub>max</sub> , deg	57.4
temp, K	173(2)
no. reflns collected	28088
no. reflns unique	6801
<i>R</i> <sub>int</sub>	0.042
no. of params	424
final <i>R</i> 1 ( <i>I</i> > 2 $\sigma$ ( <i>I</i> ))	0.0595
<i>wR</i> 2 (all data)	0.1954
GOF	1.052

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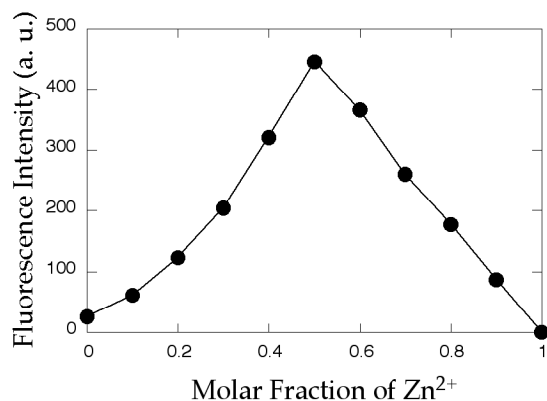
$$R1 = \frac{\sum ||F_o| - |F_c||}{\sum |F_o|}, \quad wR2 = \left[ \frac{\sum w[(F_o^2 - F_c^2)^2]}{\sum [w(F_o^2)^2]} \right]^{1/2}.$$



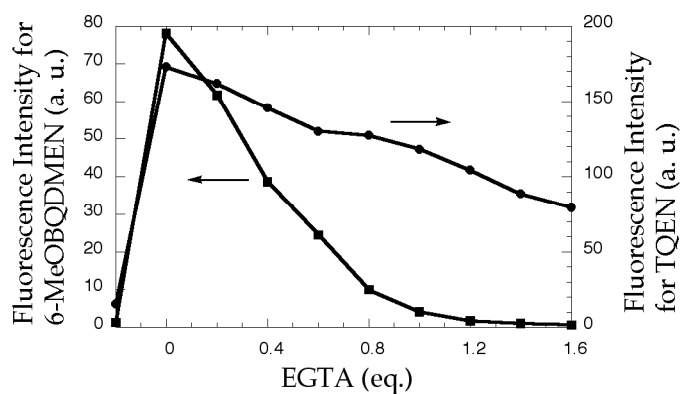
**Figure S1.** ORTEP plot for BQD/BEN (50% probability). Asterisks indicate the atoms generated by symmetric operation  $(1/2-x+1, 1/2-y, -z+1)$ .



**Figure S2.** UV-Vis spectra of 34 μM (a) BQDMEN and (b) BQDEEN, and (c) BQDiPEN in DMF/H<sub>2</sub>O (1:1) in the presence of various concentration of Zn<sup>2+</sup> ranging from 0 to 102 μM.



**Figure S3.** Job plot analysis for fluorescence intensity of zinc complexes with 6-MeOBQDMEN monitored at 406 nm ( $\lambda_{\text{ex}} = 331$  nm) in DMF/H<sub>2</sub>O (1:1).



**Figure S4.** Effect of EGTA addition for estimation of zinc binding affinity of 6-MeOBQDMEN (squares, monitored at 406 nm ( $\lambda_{\text{ex}} = 331$  nm)) and TQEN (circles, monitored at 383 nm ( $\lambda_{\text{ex}} = 317$  nm)) in DMF/H<sub>2</sub>O (1:1).