Supporting Information

Colour-Responsive Fluorescent Oxy Radical Sensors

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Table 2. Photophysical properties collected for Q2 in a range of solvents.

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<tr>
<th>Solvent</th>
<th>n&lt;sup&gt;a&lt;/sup&gt;</th>
<th>ε&lt;sup&gt;b&lt;/sup&gt;</th>
<th>λ&lt;sub&gt;ABS&lt;/sub&gt; / nm</th>
<th>λ&lt;sub&gt;EM&lt;/sub&gt; / nm</th>
<th>SS / cm&lt;sup&gt;-1&lt;/sup&gt;</th>
<th>λ&lt;sub&gt;tot&lt;/sub&gt; / eV</th>
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<td>THF&lt;sup&gt;c&lt;/sup&gt;</td>
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<td>606</td>
<td>6277</td>
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<td>DCM&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>446</td>
<td>632</td>
<td>6599</td>
<td>0.41 (0.47)&lt;sup&gt;j&lt;/sup&gt;</td>
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<td>0.37</td>
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<td>585</td>
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<td>587</td>
<td>4750</td>
<td>0.29</td>
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<sup>a</sup>refractive index,  <sup>b</sup>dielectric constant,  <sup>c</sup>Tetrahydrofuran,  <sup>d</sup>ethyl acetate,  <sup>e</sup>dichloromethane,  
<sup>f</sup>methyltetrahydrofuran,  <sup>g</sup>N,N-dimethylformamide,  <sup>h</sup>cyclohexane.  <sup>i</sup>calculated by λ<sub>tot</sub> = λ<sub>ABS</sub> - ∆E
S9. Absorption and emission profiles recorded for Q1 in MeCN (top) and cyclohexane (bottom).
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Figure S2. $^1$H NMR spectrum of compound 8B (8.5–7.0 ppm).
Figure S3. $^1$H NMR spectrum of compound 8B (2.5–0.0 ppm).
Figure S4. $^{13}$C NMR spectrum of compound 8B.
Figure S5. $^{13}$C NMR spectrum of compound 8B (200–110 ppm).
Figure S6. $^1$H NMR spectrum of compound 9A.
Figure S7. $^1$H NMR spectrum of compound 9A (2.5–0.0 ppm).
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**Figure S9.** $^{13}$C NMR spectrum of compound 9A (45–0.0 ppm).
Figure S10. $^{13}$C NMR spectrum of compound 9A (155–115 ppm).
Figure S11. $^1$H NMR spectrum of compound 13A.
Figure S12. $^1$H NMR spectrum of compound 13A (2.2–0.0 ppm).
Figure S13. $^1$H NMR spectrum of compound 13A (8.5–5.5 ppm).
Figure S14. $^{13}$C NMR spectrum of compound 13A.
Figure S15. $^{13}$C NMR spectrum of compound 13A (60–0.0 ppm).
Figure S16. $^1$H NMR spectrum of compound Q1.
Figure S17. $^1$H NMR spectrum of compound Q1 (8.8–4.6 ppm).
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**Figure S20.** $^{13}$C NMR spectrum of compound Q1 (80–0.0 ppm).
Figure S21. $^{13}$C NMR spectrum of compound Q1 (185–115 ppm).
Figure S22. $^1$H NMR spectrum of compound Q2.
Figure S23. $^1$H NMR spectrum of compound Q2 (8.5–7.1 ppm).
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Figure S32. $^{13}$C NMR spectrum of compound Q3.
Figure S33. $^1$H NMR spectrum of compound Q4.
Figure S34. $^1$H NMR spectrum of compound Q4 (9.0–7.0 ppm).
Figure S35. $^1$H NMR spectrum of compound Q4 (5.0–0.0 ppm).
Figure S36. $^{13}$C NMR spectrum of compound Q4.
Figure S37. $^{13}$C NMR spectrum of compound Q4 (160–115 ppm).
Figure S38. $^{13}$C NMR spectrum of compound Q4 (60–0.0 ppm).
Figure S39. $^{13}$C NMR spectrum of compound Q4 (100–50 ppm).
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Figure S41. $^1$H NMR spectrum of compound Q5 (9.0–7.0 ppm).
Figure S42. $^1$H NMR spectrum of compound Q5 (5.0–0.0 ppm).
Figure S43. $^{13}$C NMR spectrum of compound Q5.
Figure S44. $^{13}$C NMR spectrum of compound Q5 (160–115 ppm).
Figure S45. $^{13}$C NMR spectrum of compound Q5 (60–0.0 ppm).
Figure S46. $^{13}$C NMR spectrum of compound Q5 (85–70 ppm).