Supporting Information for

Full-colour luminescent compounds based on anthracene and 2,2’-dipyridylamine

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Experimental section

Crystallography

Single crystals suitable for X-ray analysis of 7 were obtained by slow evaporation of a CH$_3$OH-H$_2$O solution at room temperature.

Crystal data for **7·MeOH**: C$_{47}$H$_{46}$N$_{4}$O, Mw = 682.88 g·mol$^{-1}$, 0.40×0.39×0.20 mm$^3$, Monoclinic, P2(1)/c, a = 24.460(2) Å, b = 10.4080(10) Å, c = 15.1901(14) Å, β = 94.2550(10)$^\circ$, V = 3856.5(6) Å$^3$, F(000) = 1456, ρ$_{\text{calc}}$ = 1.176 Mg·m$^{-3}$, μ (Mo-Kα) = 0.071 mm$^{-1}$, T = 298(2) K, 18184 data were measured on a Bruker SMART Apex diffractometer, of which 6191 were unique (R$_{\text{int}}$ = 0.1171); 508 parameters were refined against Fo$^2$ (all data), final wR$_2$ = 0.3489, S = 1.074, R$_1$ (I > 2σ(I)) = 0.0930, largest final difference peak/hole = +0.314 /-0.262 e.Å$^{-3}$.

CCDC-895653 (2) and 959339 (7) contain the supplementary crystallographic data for this paper. These data can be obtained free of charge from The Cambridge Crystallographic Data Centre via www.ccdc.cam.ac.uk/data_request/cif.
**Fig. S1.** The $^1$H NMR spectrum of 1 in DMSO-d$_6$.

**Fig. S2.** The $^{13}$C NMR spectrum of 1 in DMSO-d$_6$. 
Fig. S3. ESI HRMS of 1 in MeOH.

Fig. S4. The $^{13}$C NMR spectrum of 2 in CDCl$_3$. 
**Fig. S5.** The $^1$H NMR spectrum of 4 in DMSO-d$_6$.

**Fig. S6.** ESI HRMS of 4 in MeOH.
**Fig. S7.** The $^1$H NMR spectrum of 5 in DMSO-d$_6$.

**Fig. S8.** ESI HRMS of 5 in MeOH.
Fig. S9. The $^1$H NMR spectrum of 6 in CDCl$_3$.

a) Before addition of D$_2$O

b) After addition of D$_2$O

Fig. S10. The $^1$H NMR spectrum of 6 in CDCl$_3$, a) Before addition of D$_2$O; b) After addition of D$_2$O.
Fig. S11. ESI HRMS of 6 in MeOH.

Fig. S12. The $^1$H NMR spectrum of 7 in DMSO-d$_6$. 
Fig. S13. The $^{13}$C NMR spectrum of 7 in DMSO-d$_6$.

Fig. S14. ESI HRMS of 7 in MeOH.
Fig. S15. The $^1$H NMR spectrum of 8 in DMSO-d$_6$.

Fig. S16. The $^{13}$C NMR spectrum of 8 in DMSO-d$_6$. 
Fig. S17. ESI HRMS of 8 in MeOH.

Fig. S18. The $^1$H NMR spectrum of 9 in CDCl$_3$. 
Fig. S19. The $^1$H NMR spectrum of 9 in CDCl$_3$, a) Before addition of D$_2$O; b) After addition of D$_2$O.

Fig. S20. ESI HRMS of 9 in MeOH.
Fig. S21. Emission spectra of 1 recorded in various solvents.

Fig. S22. Emission spectra of 2 recorded in various solvents.
Fig. S23. Emission spectra of 3 recorded in various solvents.

Fig. S24. Emission spectra of 4 recorded in various solvents.
Fig. S25. Emission spectra of 5 recorded in various solvents.

Fig. S26. Emission spectra of 6 recorded in various solvents.
Fig. S27. Emission spectra of 8 recorded in various solvents.

Fig. S28. Diagrams showing the HOMO and LUMO levels of 1–8.
Fig. S29. X-ray crystal structure of 7.

Table 1. Quantum yields of 1–8 in different solvents.

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Note: n. d. denotes too weak signal to be detected.