Sensitised near-infrared emission from lanthanides using a covalently-attached Pt(II) fragment as an antenna group

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Supporting information

1. Characterisation data for the dinuclear complexes $[(PPh_3)_2Pt(\mu\text{–pdo})Ln(tta)_3]$ (**Pt-Ln**):

Pt-La: yield, 84%
Calcd. For $LaPtC_{72}H_{48}N_2O_8P_2S_3F_9$: C. 49.9; H, 2.8; N, 1.6%. Found: C, 49.8; H, 2.6; N, 1.7%.

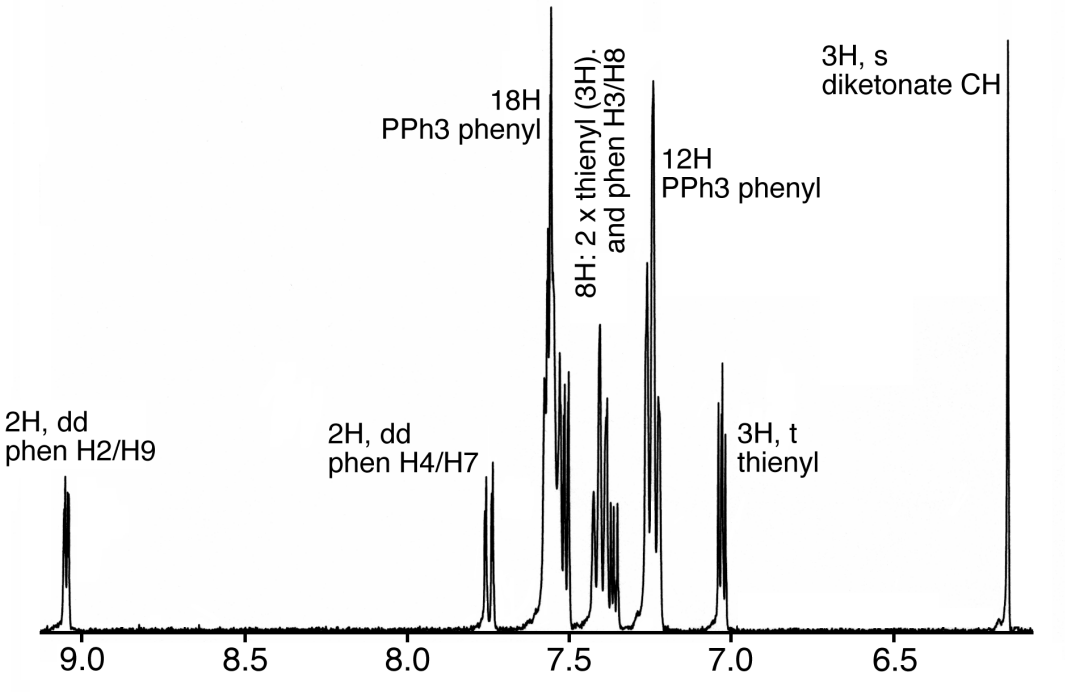
Pt-Nd: yield, 80%
Calcd. For $NdPtC_{72}H_{48}N_2O_8P_2S_3F_9$: C. 49.9; H, 2.8; N, 1.6%. Found: C, 49.9; H, 2.7; N, 1.8%.

Pt-Gd: yield, 75%
Calcd. For $GdPtC_{72}H_{48}N_2O_8P_2S_3F_9$: C. 49.4; H, 2.8; N, 1.6%. Found: C, 49.3; H, 2.6; N, 1.6%.

Pt-Er: yield, 73%
Calcd. For $ErPtC_{72}H_{48}N_2O_8P_2S_3F_9$: C. 49.1; H, 2.8; N, 1.6%. Found: C, 49.5; H, 2.6; N, 1.7%.

Pt-Yb: yield, 72%
Calcd. For $YbPtC_{72}H_{48}N_2O_8P_2S_3F_9$: C. 49.0; H, 2.7; N, 1.6%. Found: C, 49.3; H, 2.5; N, 1.7%.

Proton NMR spectrum (400 MHz) of **Pt-La** in CD_2Cl_2:



2. Luminescence spectra for the dinuclear complexes $[(PPh_3)_2Pt(\mu\text{–pdo})Ln(tta)_3]$ in CH_2Cl_2 solution (Ln = Yb, Nd, Er); spectra are normalised and uncorrected, with λ_{exc} = 520nm).