

ESI to accompany:

## Metallohexacycles containing 4'-aryl-4,2':6',4''-terpyridines: conformational preferences and fullerene capture

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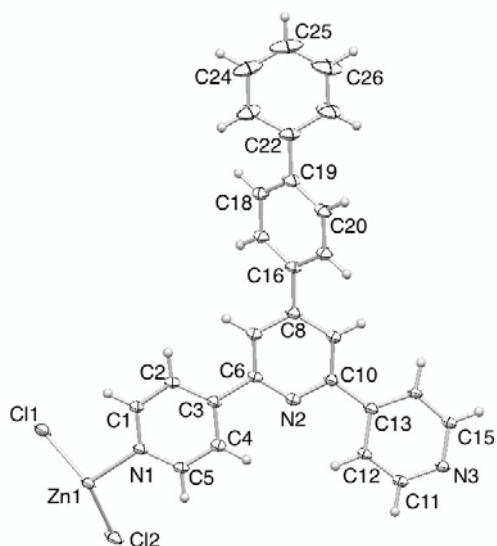


Fig. S1 ORTEP plot with atom labelling for the contents of the asymmetric unit in  $[\{\text{ZnCl}_2(\mathbf{1})\}_6] \cdot 6\text{CHCl}_3 \cdot 6\text{MeOH} \cdot 5\text{H}_2\text{O}$ . Ellipsoids plotted at 40% probability level; solvent molecules omitted.

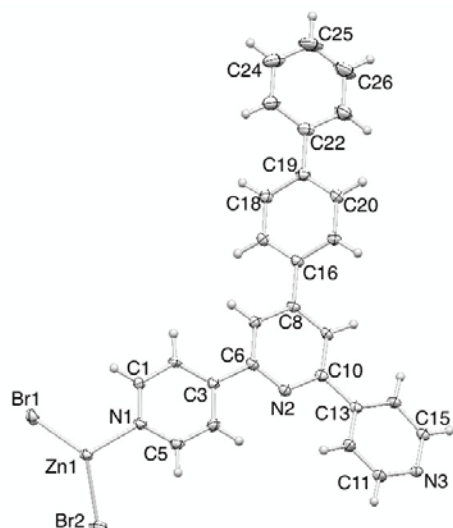


Fig. S2 ORTEP plot with atom labelling for the contents of the asymmetric unit in  $[\{\text{ZnBr}_2(\mathbf{1})\}_6] \cdot 4\text{CHCl}_3 \cdot 5\text{MeOH} \cdot 8\text{H}_2\text{O}$ . Ellipsoids plotted at 40% probability level; solvent molecules omitted.

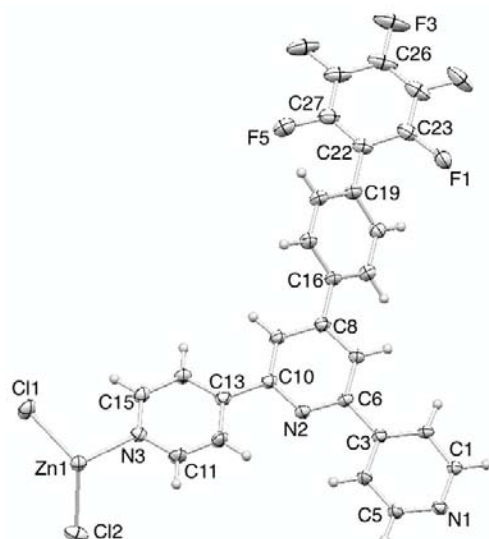


Fig. S3 ORTEP plot with atom labelling for the contents of the asymmetric unit in  $[\{\text{ZnCl}_2(\mathbf{2})\}_6] \cdot 3\text{CHCl}_3 \cdot 3\text{MeOH} \cdot 6\text{H}_2\text{O}$ . Ellipsoids plotted at 40% probability level; solvent molecules omitted

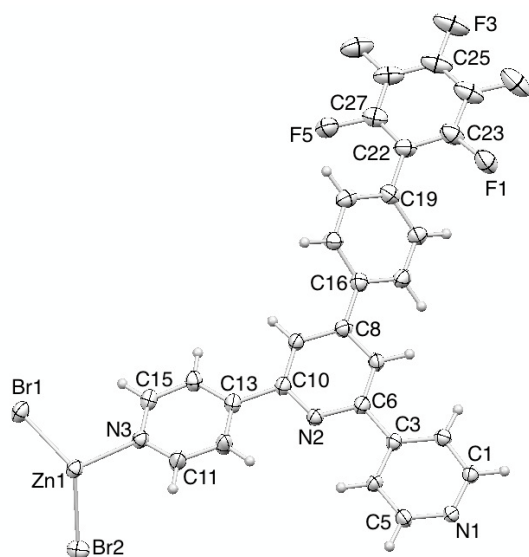


Fig. S4 ORTEP plot with atom labelling for the contents of the asymmetric unit in  $[\{\text{ZnBr}_2(\mathbf{2})\}_6]$ . Ellipsoids plotted at 30% probability level.

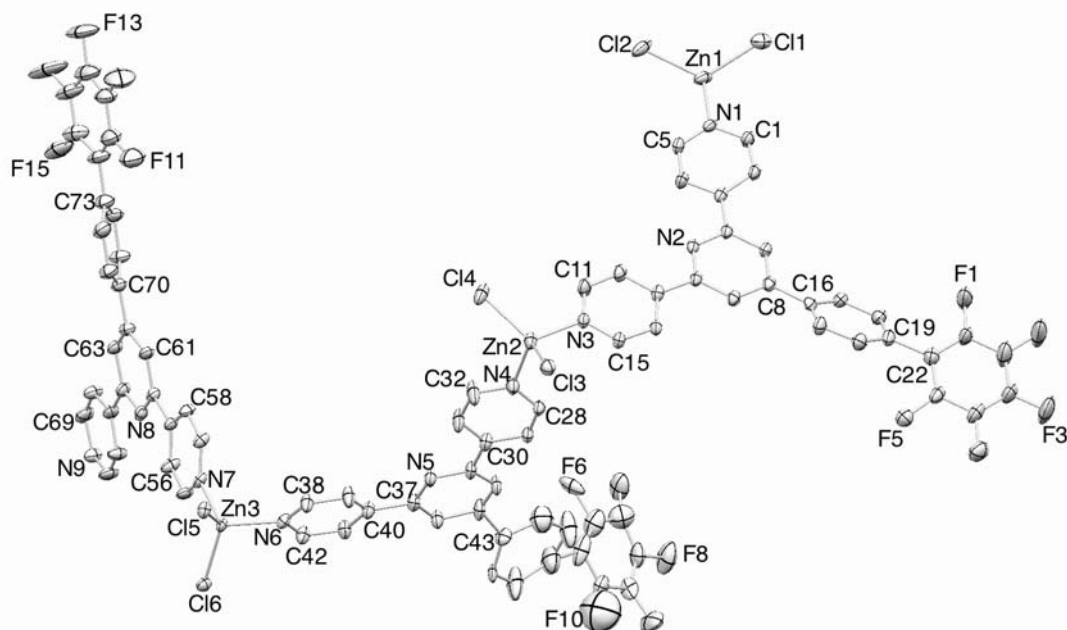


Fig. S5 ORTEP plot with atom labelling for the contents of the asymmetric unit in  $[\{ZnCl_2(2)\}_6]$ . Ellipsoids plotted at 25% probability level; H atoms and solvent molecules omitted.

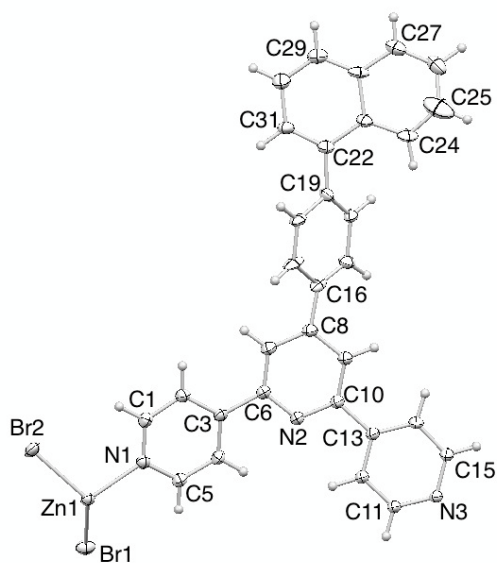


Fig. S6 ORTEP plot with atom labelling for the contents of the asymmetric unit in  $[\{ZnBr_2(3)\}_6] \cdot 3CHCl_3 \cdot 15H_2O$ . Ellipsoids plotted at 40% probability level; solvent molecules omitted.

Crystallographic data for  $[\{ZnCl_2(1/2)\}_6] \cdot 2CHCl_3 \cdot 3MeOH \cdot 9H_2O$  (Conformer I)

$C_{167}H_{131}Cl_{18}F_{15}N_{18}O_{12}Zn_6$ ,  $M = 3897.04$ , colourless block, trigonal, space group  $R\bar{3}$ ,  $a = b = 37.801(3)$ ,  $c = 11.3665(11)$  Å,  $U = 14066(2)$  Å<sup>3</sup>,  $Z = 3$ ,  $D_c = 1.374$  Mg m<sup>-3</sup>,  $\mu(Cu-K\alpha) = 3.826$  mm<sup>-1</sup>,  $T = 123$  K. Total 32721 reflections, 5664 unique,  $R_{int} = 0.0937$ . Refinement of 3938 reflections (434 parameters) with  $I > 2\sigma(I)$

converged at final  $R1 = 0.0599$  ( $R1$  all data = 0.0939),  $wR2 = 0.1567$  ( $wR2$  all data = 0.1769),  $gof = 1.035$ . CCDC 956350.