

The dataset contains data for this study:

Elemental microanalyses.

Electrospray mass spectra.

$^1\text{H}$  and  $^{13}\text{C}$  NMR spectra (raw and processed data).

X-ray Crystallographic data:

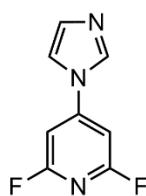
- Structure of 2,6-difluoro-4-(imidazol-1-yl)pyridine (CCDC 1997941).
- Structure of  $\alpha$ -L (CCDC 1997942).
- Structure of  $\beta$ -L (not deposited with the CCDC).
- Structure of  $[\text{Ag}(\mu\text{-L})]\text{BF}_4 \cdot \frac{1}{2}\text{CH}_3\text{CN}$  (CCDC 1997943).
- Structure of  $[\text{FeL}_2]\text{[BF}_4]_2$  (CCDC 1997944).
- Structure of  $[\text{FeL}_2]\text{[ClO}_4]_2$  (CCDC 1997945).
- Structure of  $[\text{Fe}_3(\mu\text{-F})_2\text{F}_6\text{L}_8]\text{BF}_4 \cdot 2.5\text{CH}_3\text{OH}$ , hexagonal pseudopolymorph (CCDC 1997946).
- Structure of  $[\text{Fe}_3(\mu\text{-F})_2\text{F}_6\text{L}_8]\text{BF}_4 \cdot x\text{CH}_3\text{OH}$ , tetragonal pseudopolymorph (preliminary structure solution - not deposited with the CCDC).

X-ray powder diffraction data (measured and simulated).

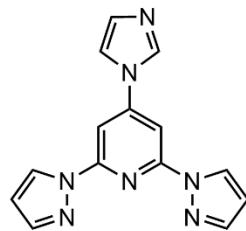
Solid state magnetic susceptibility measurements (raw and processed data).

Solution magnetic susceptibility measurements (Evans method; raw and processed data).

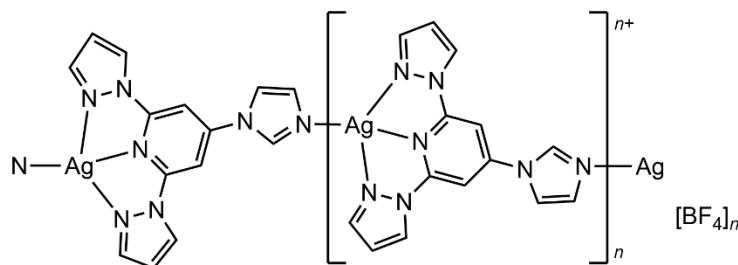
## Compounds referred to in this dataset



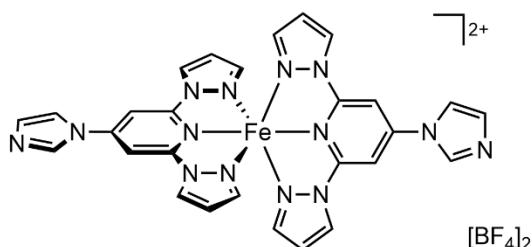
2,6-Di(fluoro)-4-(imidazol-1-yl)pyridine  
 $C_8H_5F_2N_3$



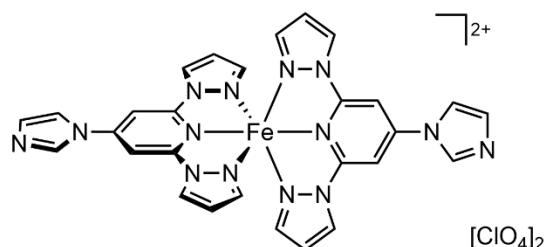
$L$   
 4-(Imidazol-1-yl)-2,6-di(pyrazol-1-yl)pyridine  
 $C_{14}H_{11}N_7$



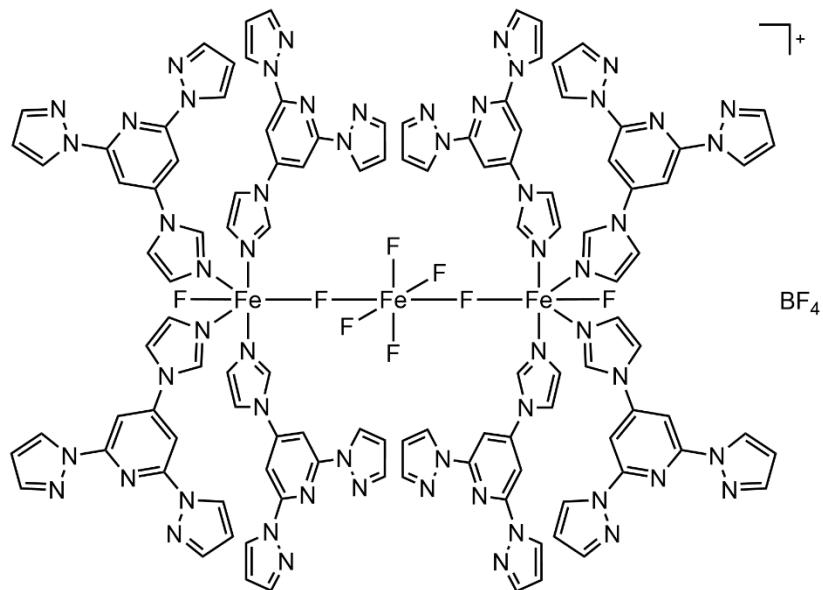
$[Ag(\mu-L)]BF_4$   
 catena-[4-(imidazol-1-yl)-2,6-di(pyrazol-1-yl)pyridine]silver(I) tetrafluoroborate  
 $C_{14}H_{11}AgBF_4N_7$



$[FeL_2][BF_4]_2$   
 Bis[4-imidazol-1-yl]-2,6-di(pyrazol-1-yl)pyridine]-iron(II) di(tetrafluoroborate)  
 $C_{28}H_{22}B_2F_8FeN_{14}$



$[FeL_2][ClO_4]_2$   
 Bis[4-imidazol-1-yl]-2,6-di(pyrazol-1-yl)pyridine]-iron(II) diperchlorate  
 $C_{28}H_{22}Cl_2FeN_{14}O_8$



$[Fe(\mu-F)_2F_6L_8][BF_4]_2$   
 Octakis-[4-imidazol-1-yl)-2,6-di(pyrazol-1-yl)pyridine]octafluoro-triiron(III) tetrafluoroborate  
 $C_{112}H_{88}BF_{12}Fe_3N_{56}$