

Summary of data/files

Compound identification

L1 = (\pm)-2,3,7,8,12,13-Hexa(pyridyl-4-carboxylate)-10,15-dihydro-5*H*-tribenzo[*a,d,g*]cyclononene (trivial name = hexakis(isonicotinoyl)cyclotricatechylene)

Compound 1 = $[\text{Re}_3(\text{L1})_2\text{Br}_3(\text{CO})_3] \cdot n(\text{CH}_3\text{NO}_2) \cdot m(\text{H}_2\text{O})$

Complex 2a = $[\text{Co}_3(\text{H}_2\text{O})_6(\text{L1})_2] \cdot 6(\text{NO}_3) \cdot n(\text{dimethylformamide})$

Complex 2b = $[\text{Cu}_3(\text{H}_2\text{O})_6(\text{L1})_2] \cdot 6(\text{NO}_3) \cdot n(\text{dimethylformamide})$

Complex 2c = $[\text{Ni}_3(\text{H}_2\text{O})_6(\text{L1})_2] \cdot 6(\text{NO}_3) \cdot n(\text{dimethylformamide})$

Complex 3a = $[\text{Co}_3\text{Cl}_6(\text{L1})_2] \cdot n(\text{dimethylformamide})$

Complex 3b = $[\text{Co}_3\text{Br}_6(\text{L1})_2] \cdot n(\text{dimethylformamide})$

Complex 4 = $[\text{Co}_3\text{I}_{1.5}(\text{H}_2\text{O})_{4.5}(\text{L1})_2] \cdot 4.5\text{I} \cdot m(\text{dimethylformamide})$

Complex 5 = $[\text{Cu}_2(\text{L1})(\text{trifluoroacetate})_3(\text{isonicotinate})] \cdot n(\text{dimethylformamide})$

Complex 6 = $[\text{Ag}_2(\text{L1})(\text{dimethylformamide})_2] \cdot 2\text{BF}_4 \cdot 2(\text{H}_2\text{O}) \cdot 6(\text{dimethylformamide})$

NMR.zip

Images (*.PDF) and raw data for Nuclear Magnetic Resonance Data of L1 in dimethylsulfoxide (DMSO) solution

Crystal.zip

Data for single crystal structure determinations

Each folder contains:

- X-Ray data file as name.hkl
- Original data file where SQUEEZE procedure has been used if appropriate
- Final refinement results as name.res
- Crystallographic information file as name.cif
- Structure factor file as name.fcf

Analysis.zip

Additional characterisation data of compounds including:

- Mass spectrum of L1
- Infrared spectroscopy of all compounds (Infrared.pdf)
- Thermogravimetric Analysis Data (TGA data.pdf)
- CHN Elemental analysis results

SEM-EDX.zip

Data and images for energy dispersive X-ray spectroscopy