

Supporting information

Synthesis, characterization and nonlinear optical effects of $M_4(\mu_4-O)$ Core Complexes with Large Two-Photon Absorption Cross-Section.

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An ORTEP diagram of the clusters

Figure S1

A perspective view of the crystal packing in the unit cell

Figure S2

IR spectra of clusters $[M_4O(MBT)_6]$ (M=Fe, Co, Ni, Cu)

Figure S3

The solution UV-vis spectra of clusters

Figure S4

The TG and DTG curves of clusters

Figure S5

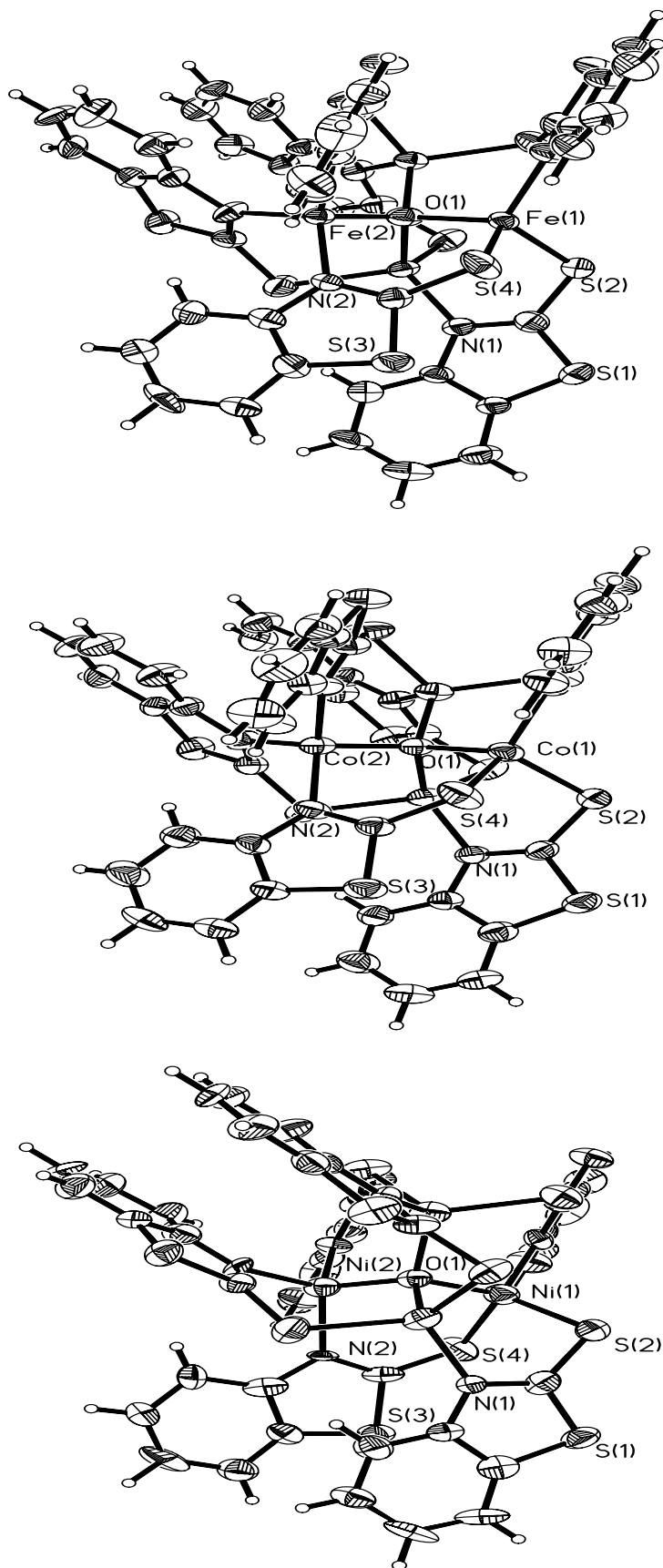


Figure S1 Molecular structures of $[\text{Fe}_4\text{O}(\text{MBT})_6]$ (top), $[\text{Co}_4\text{O}(\text{MBT})_6]$ (middle) and $[\text{Ni}_4\text{O}(\text{MBT})_6]$ (bottom) with the atomic numbering scheme.

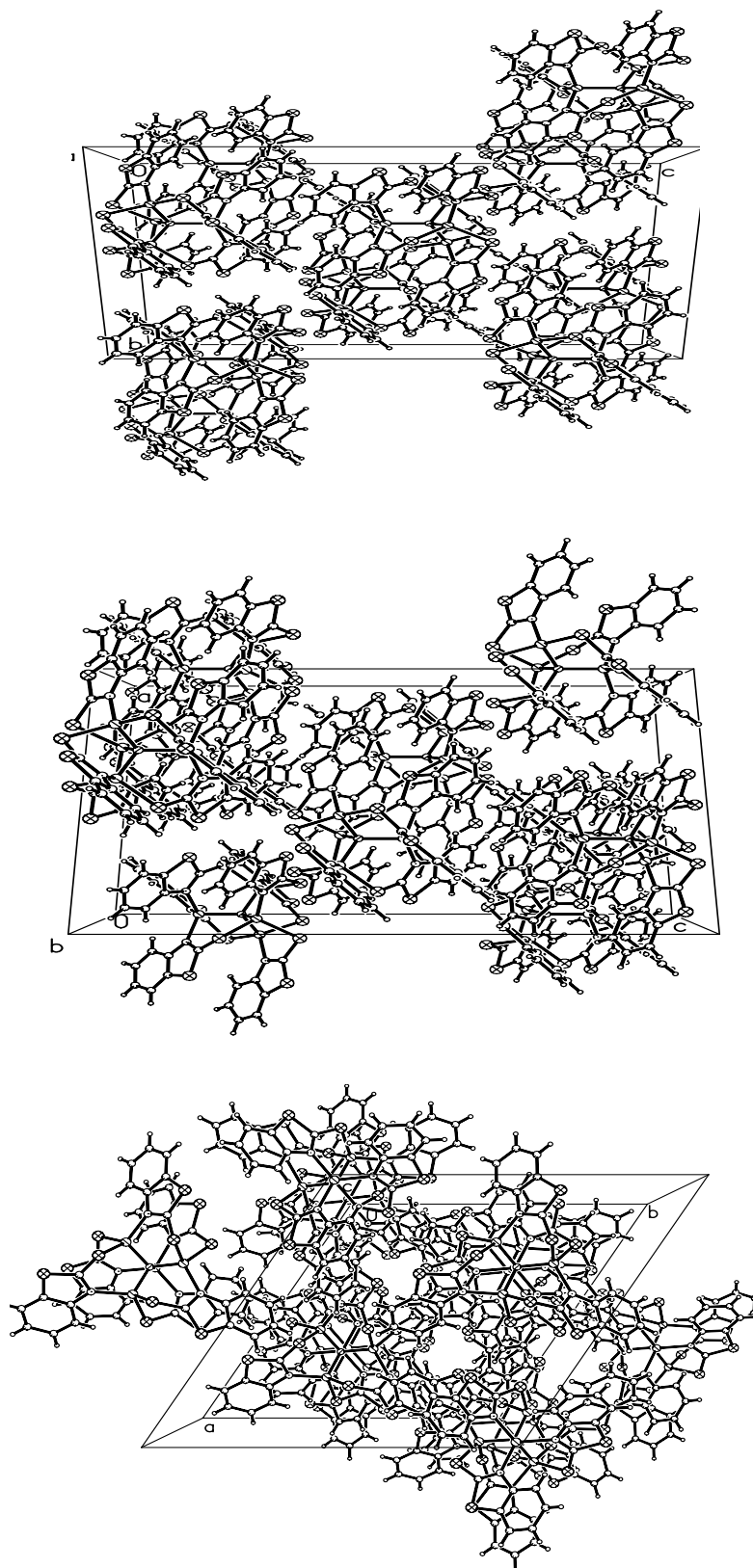
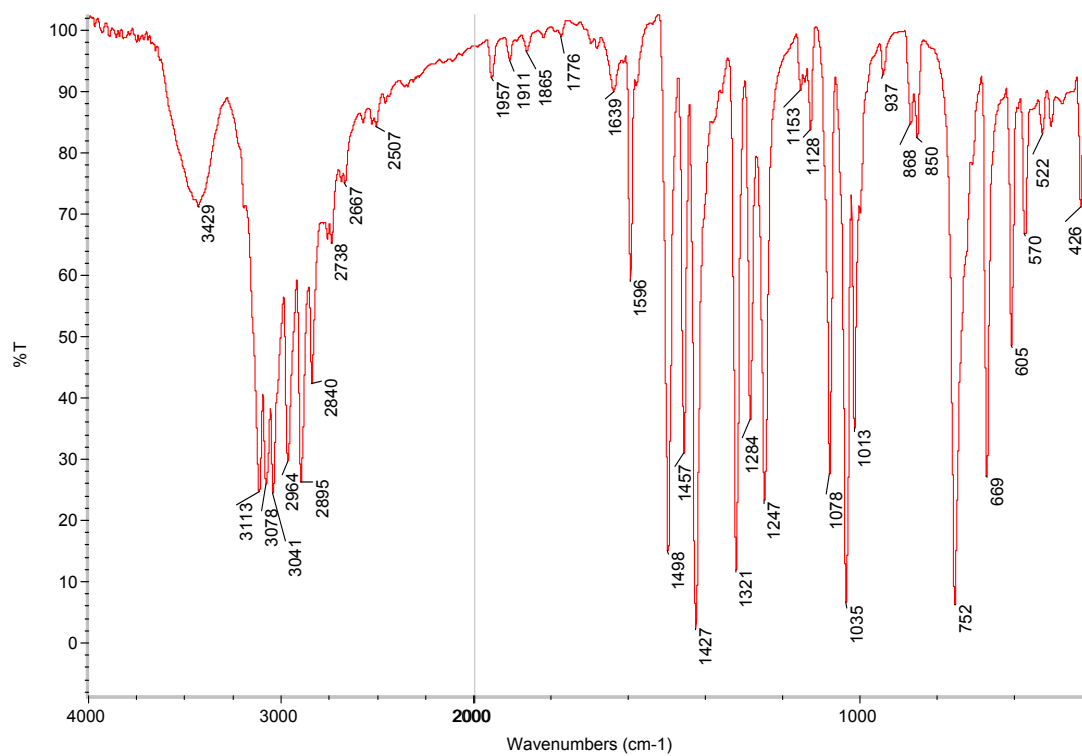
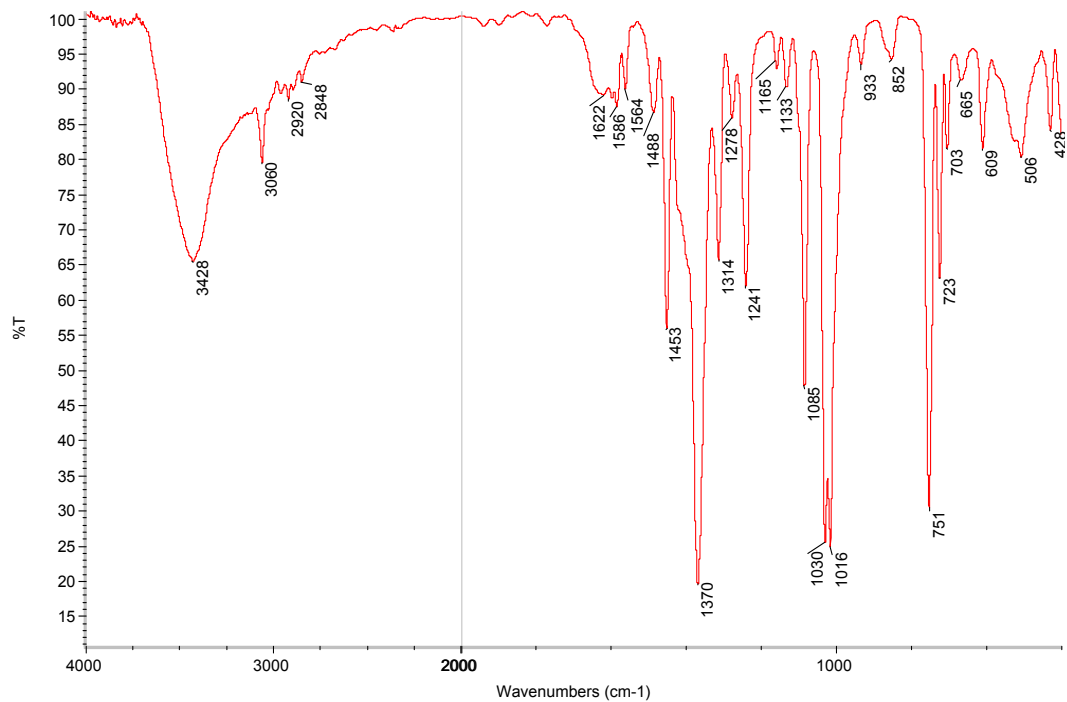


Figure S2 A view of the crystal packing down the a axis for $[\text{Fe}_4\text{O}(\text{MBT})_6]$ (top), b axis for $[\text{Co}_4\text{O}(\text{MBT})_6]$ (middle), and c axis for $[\text{Ni}_4\text{O}(\text{MBT})_6]$ (bottom).

[Fe₄O(MBT)₆]



[Co₄O(MBT)₆]



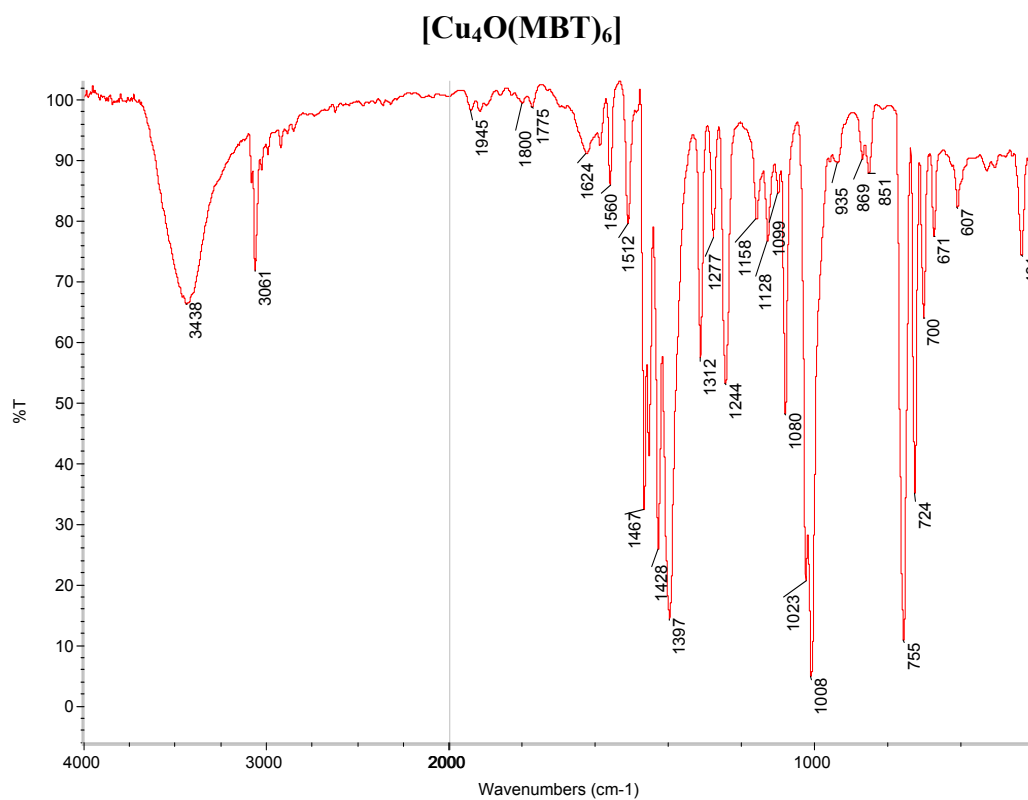
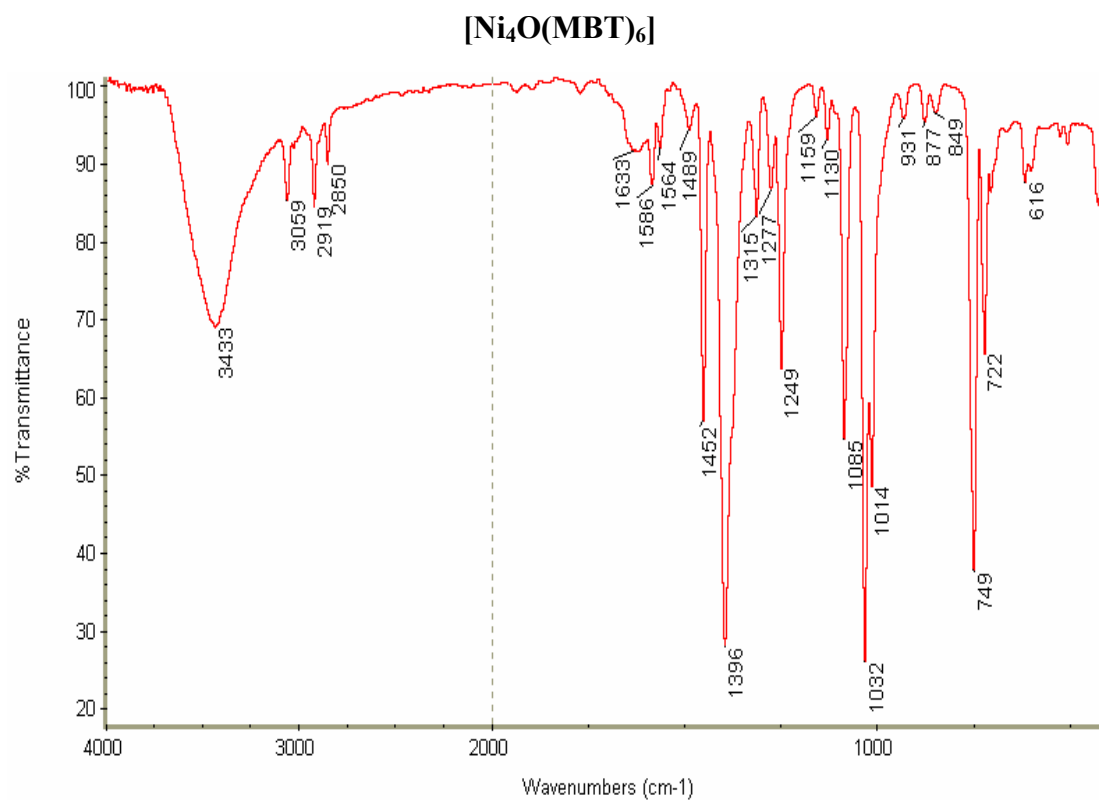
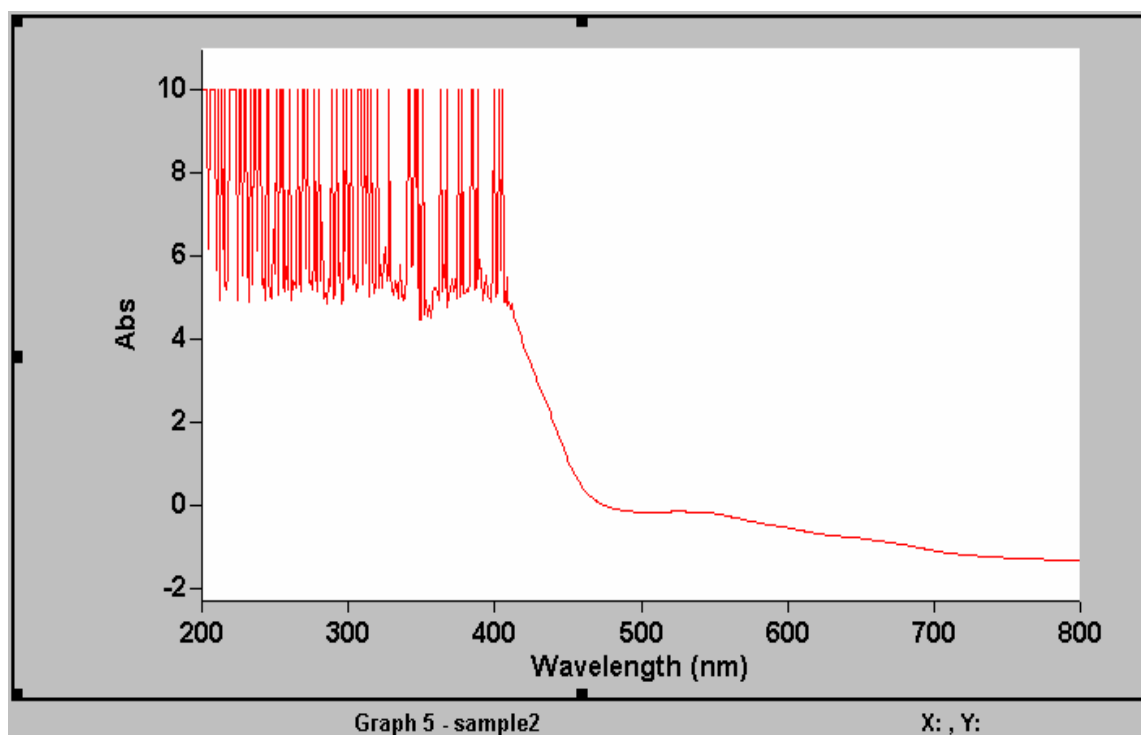
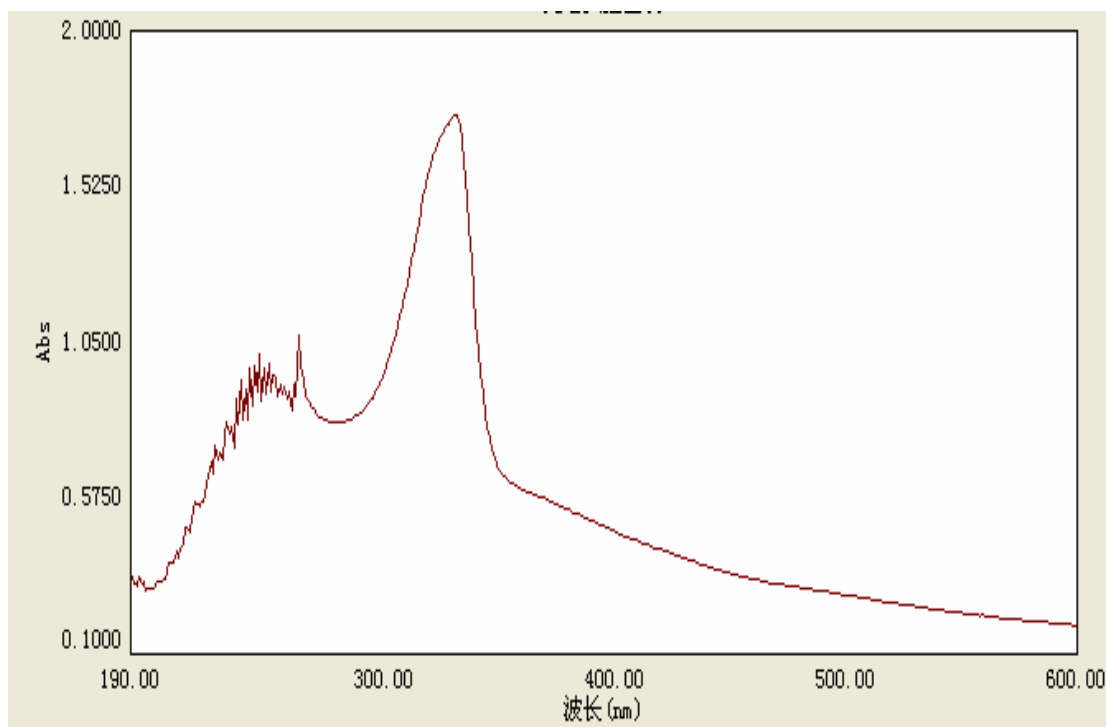


Figure S3 The IR spectra of clusters [M₄O(MBT)₆] (M=Fe,Co,Ni,Cu)



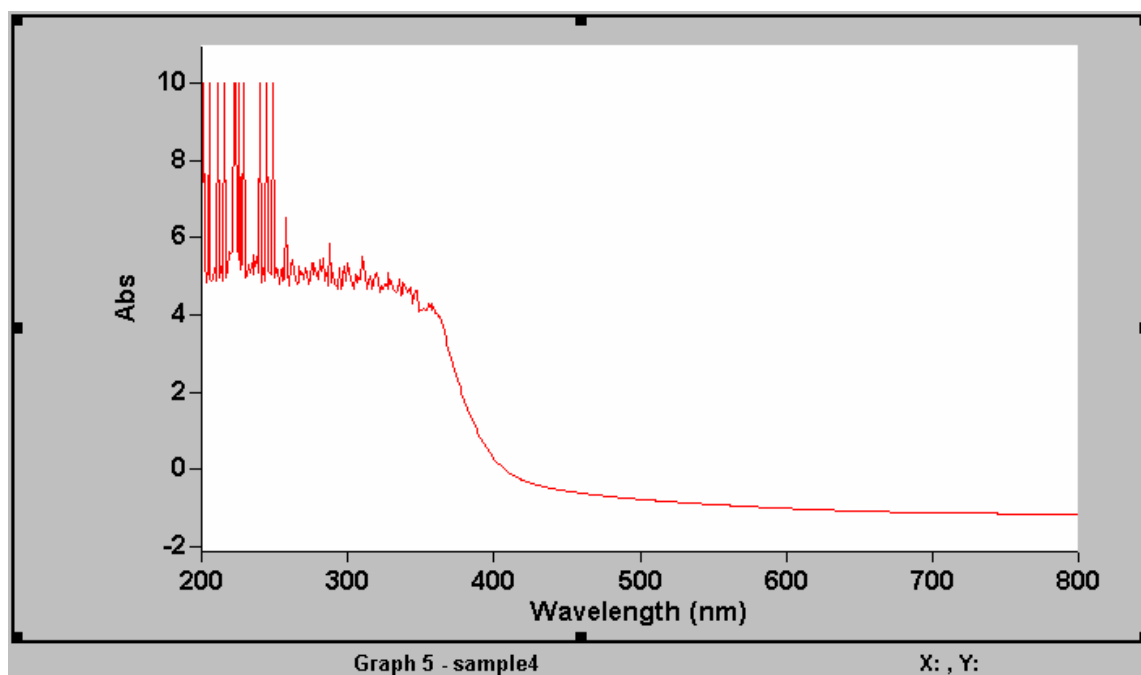
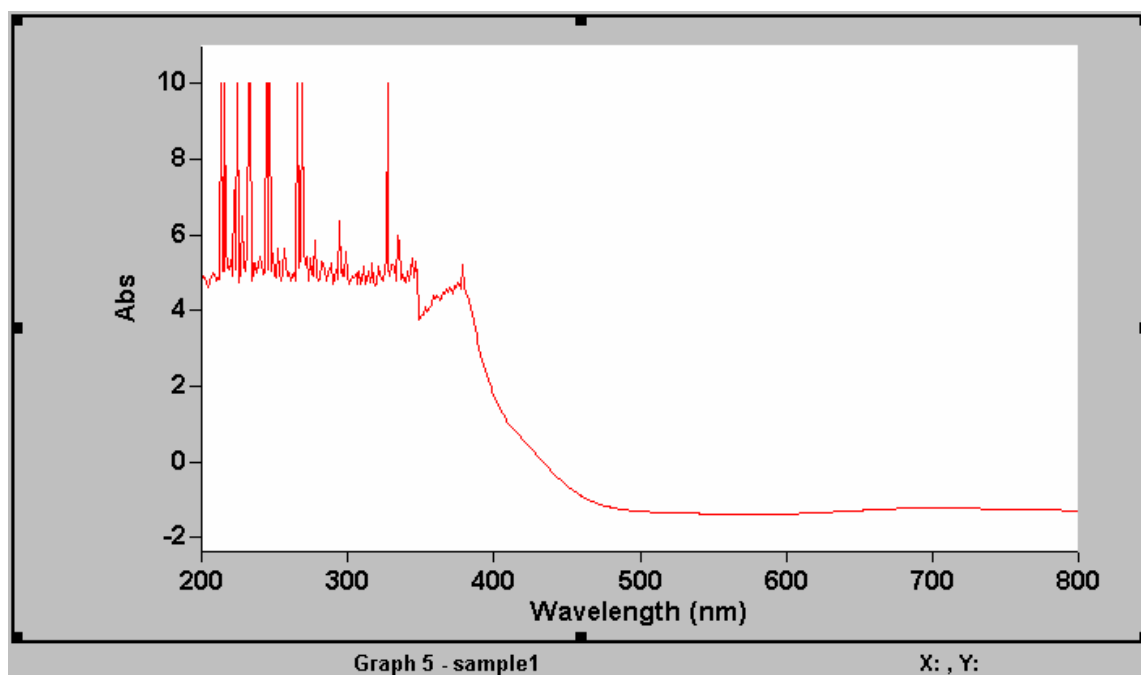
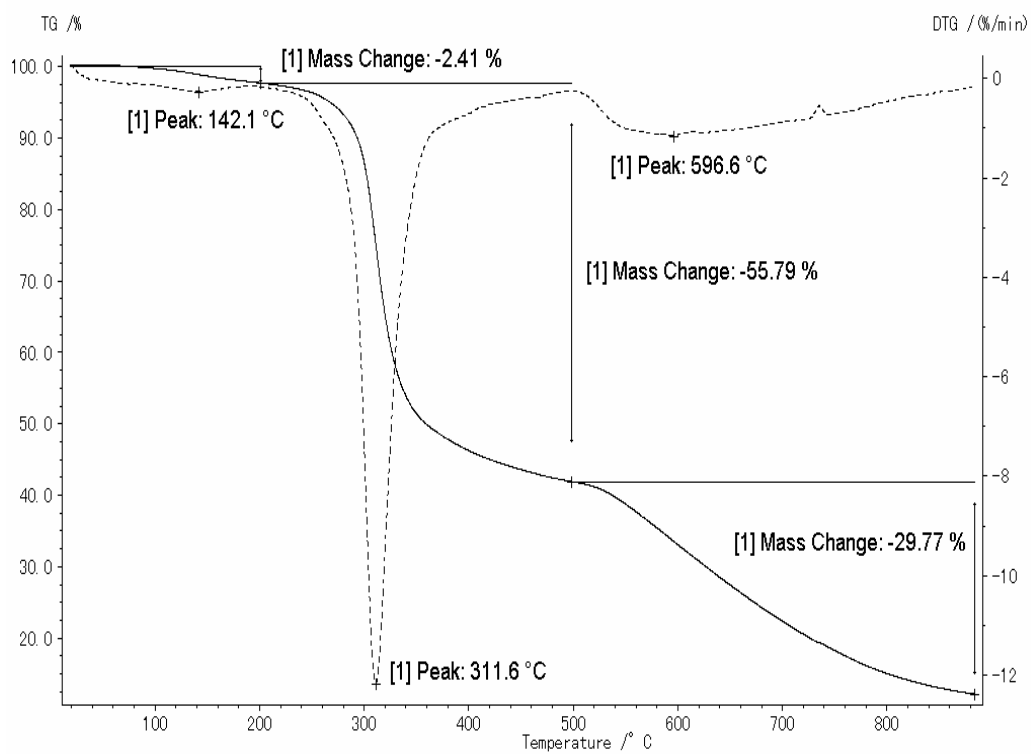
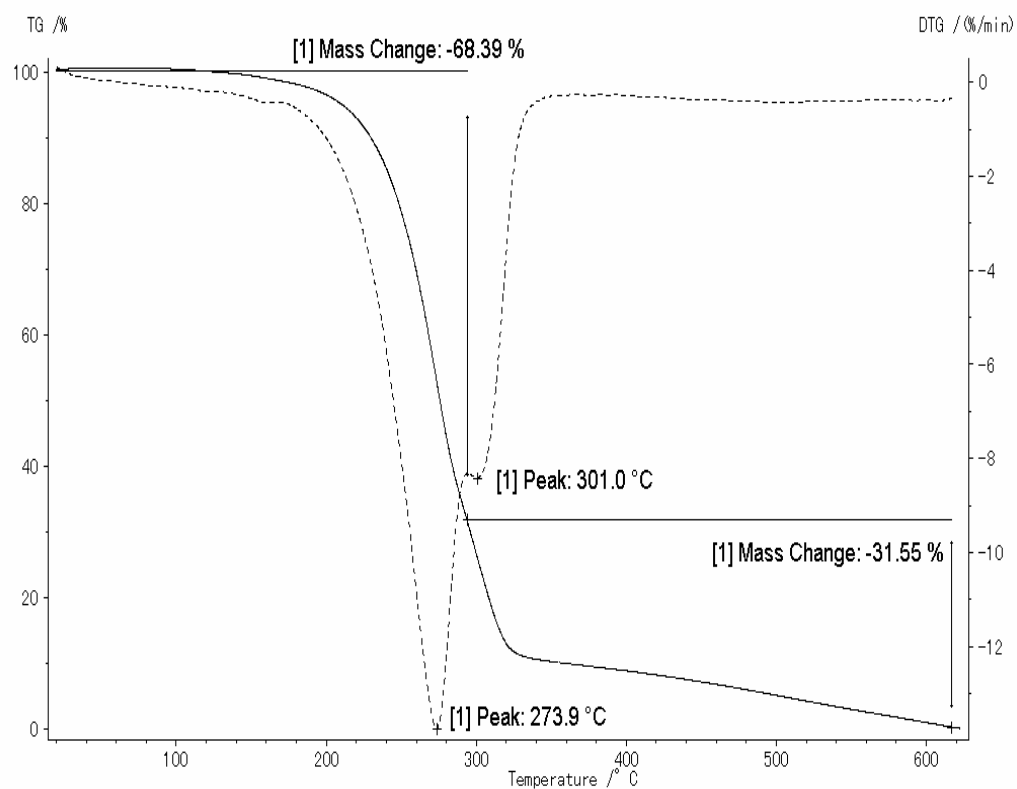


Figure S4 The solution UV-vis spectra of clusters $[\text{M}_4\text{O}(\text{MBT})_6]$ (M=Fe,Co,Ni,Cu)



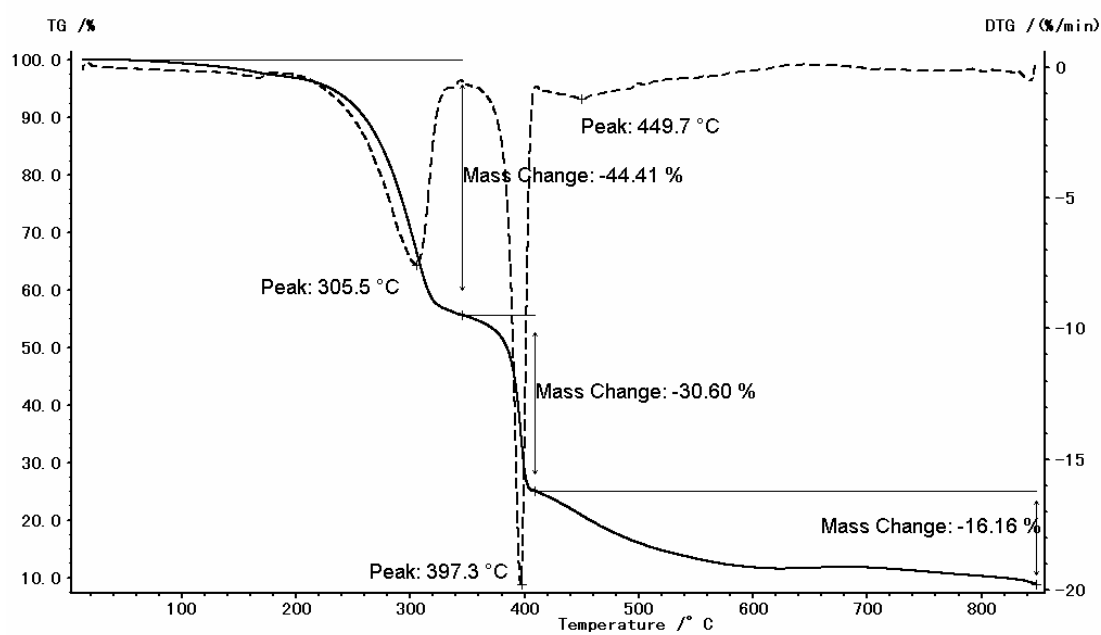
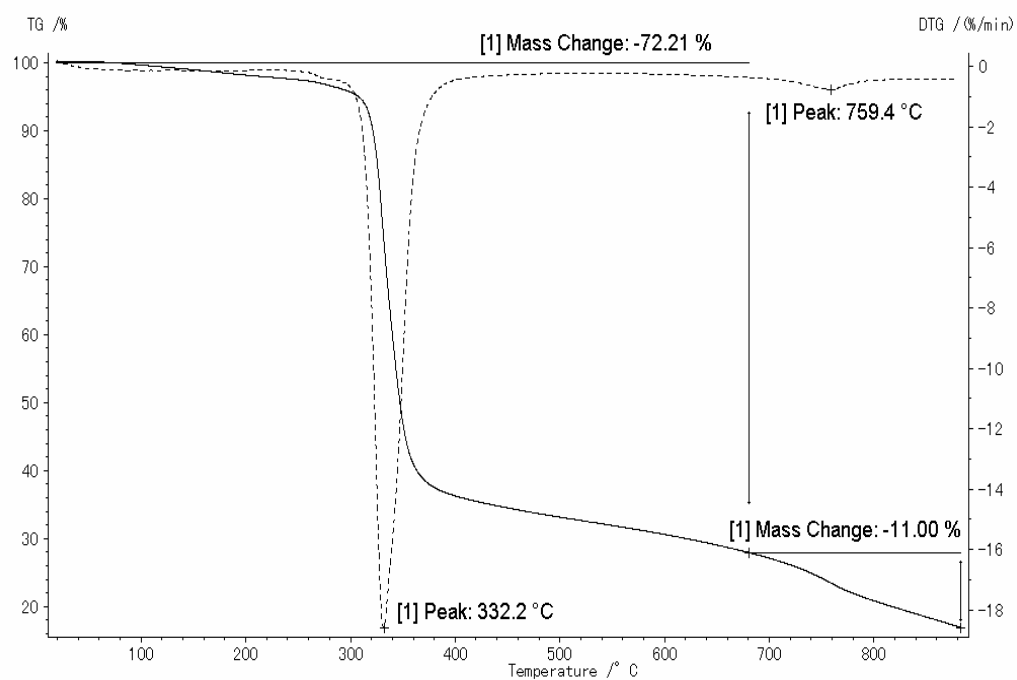


Figure S5 The TG and DTG curves of clusters $[\text{M}_4\text{O}(\text{MBT})_6]$ ($\text{M}=\text{Fe}, \text{Co}, \text{Ni}, \text{Cu}$)