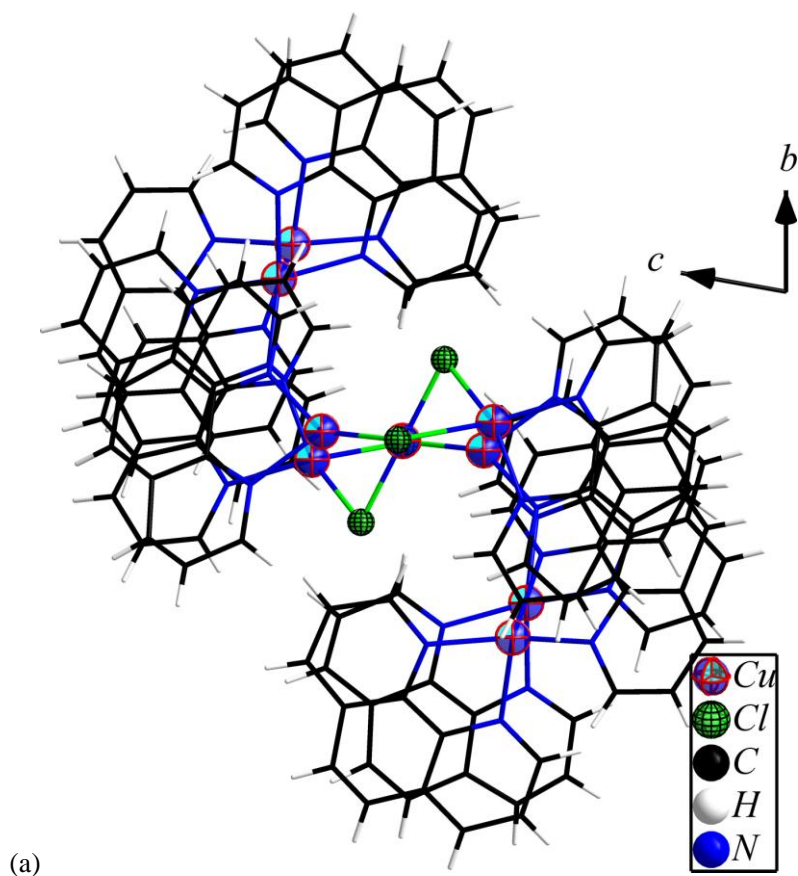


Fig. S1 The UV-Vis spectra for compound 1-6.



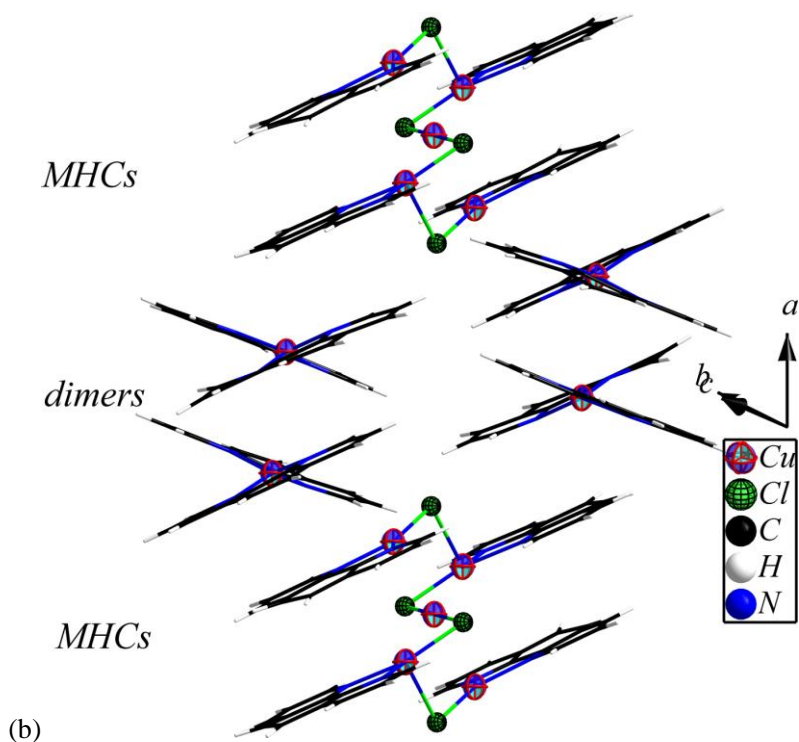


Fig. S2 (a) The upper view of the representation of the supramolecular infinite straight column structure along a axis constructed from metal halide clusters and supramolecular dimers. (b) The side view of the supramolecular column.

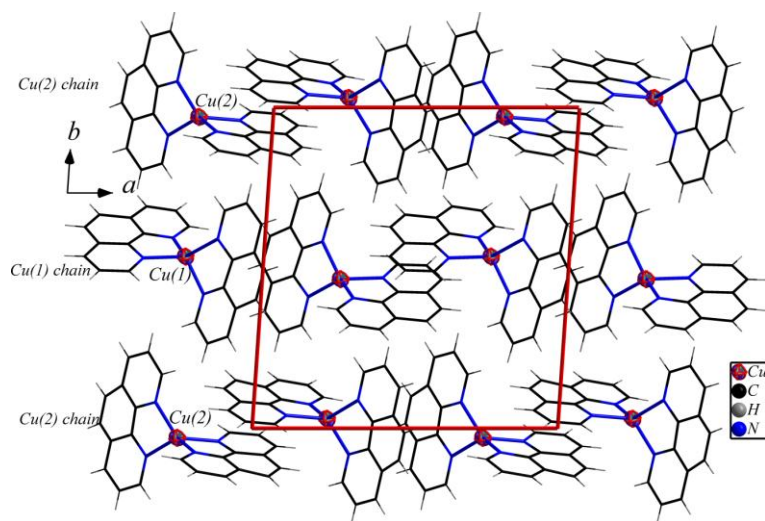
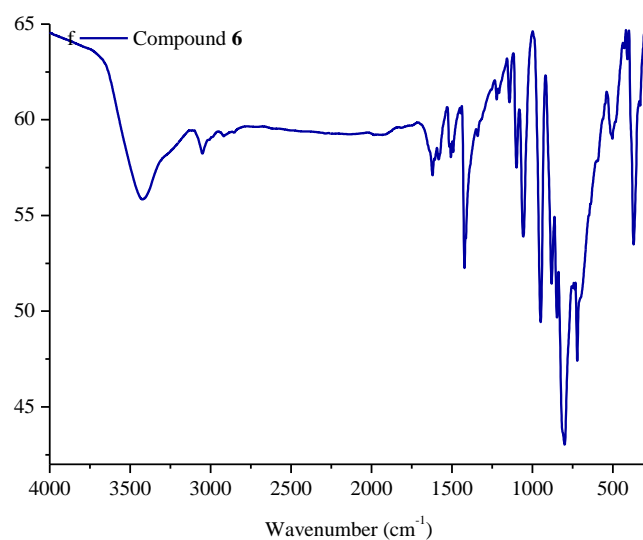
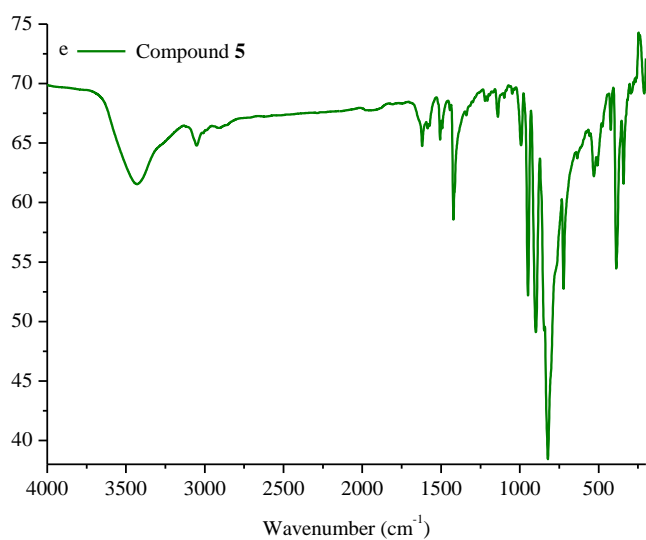
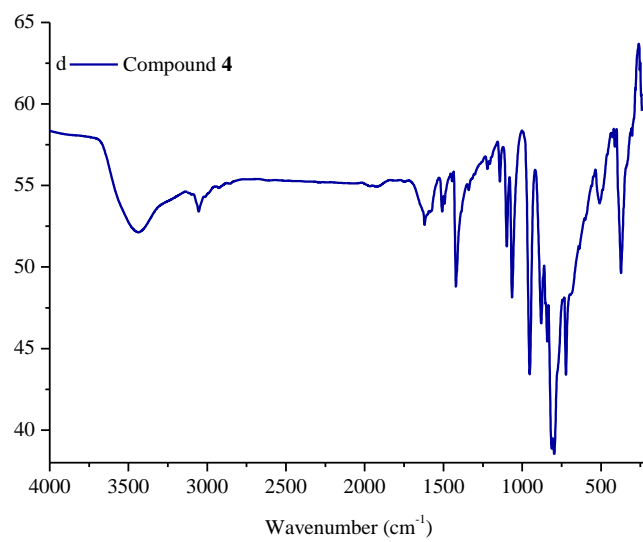
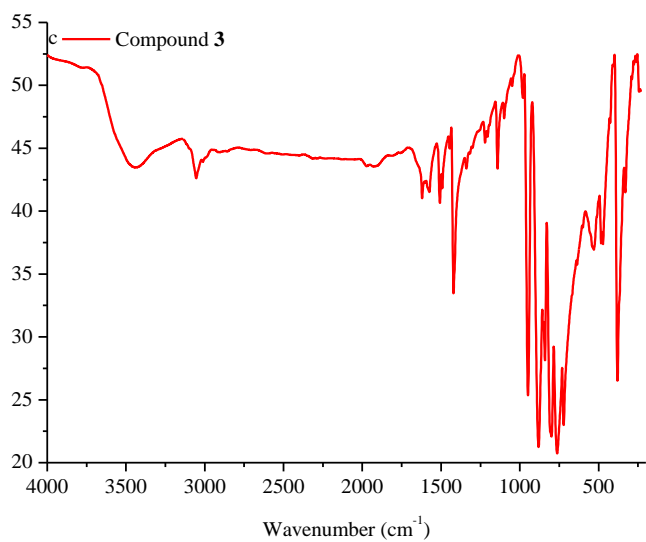
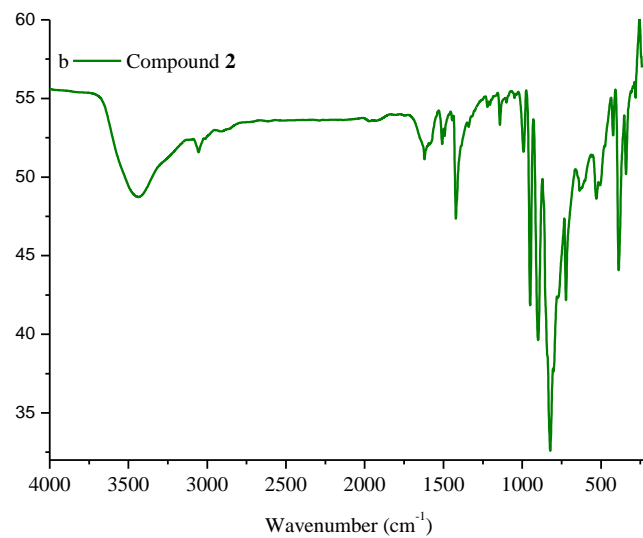
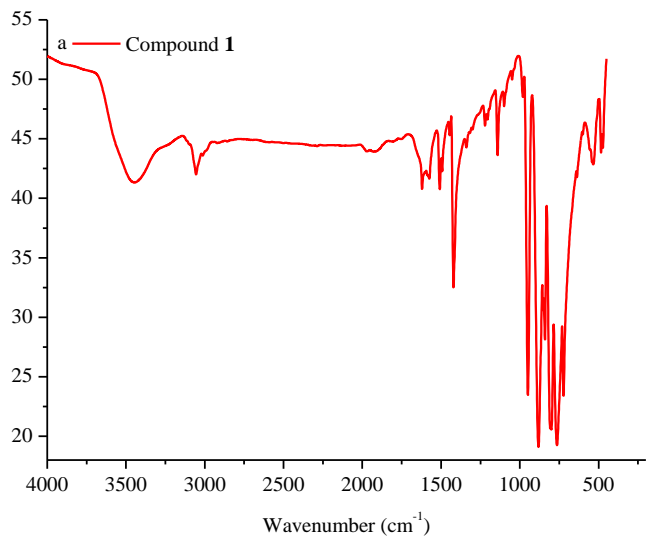


Fig. S3 The arrangement of the supramolecular chains based on Cu(1) and Cu(2) TMCs in compound 5.



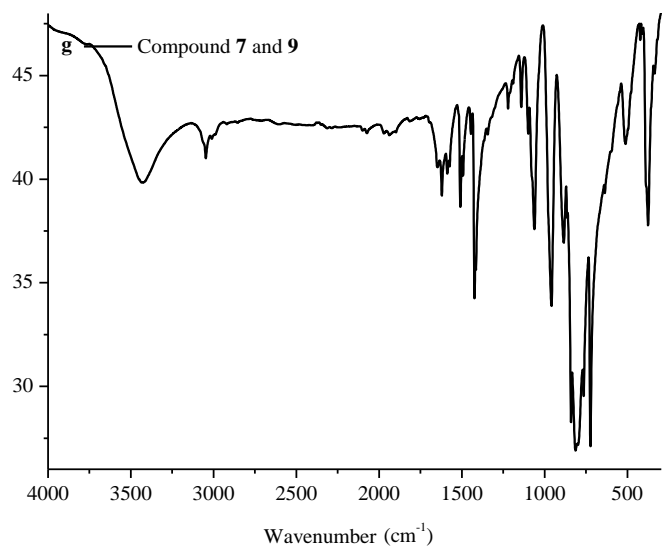
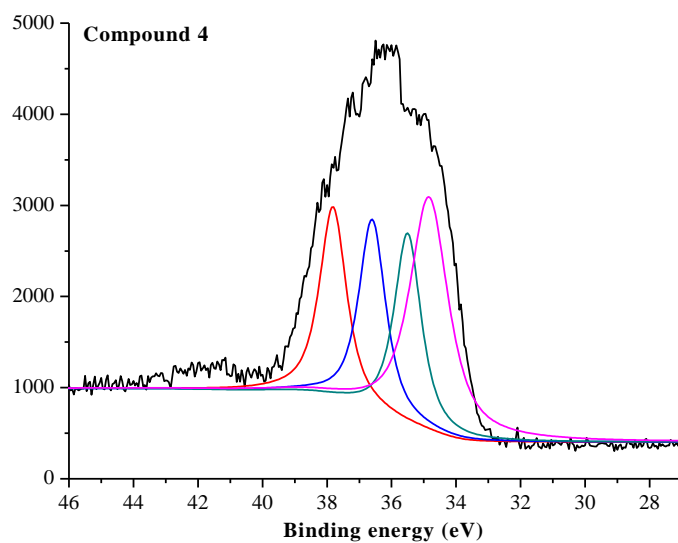
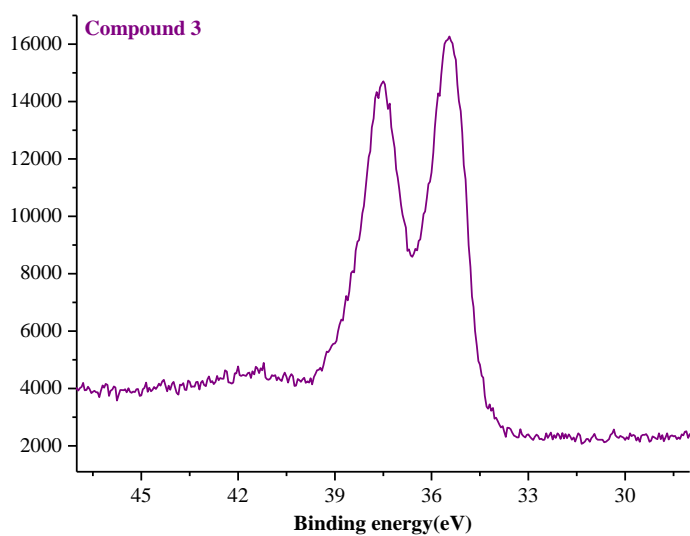
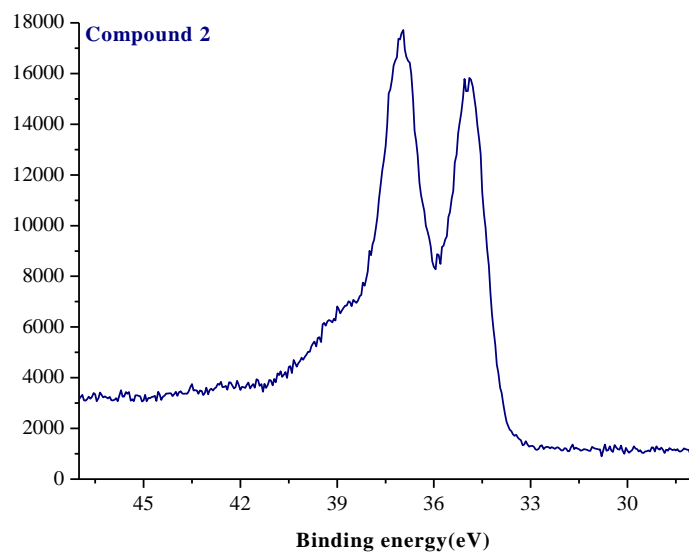
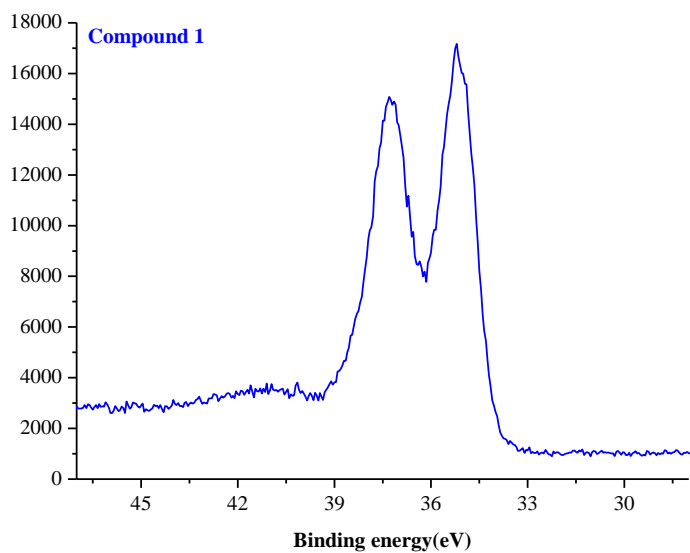


Fig. S4 The IR spectra for compound 1-6 and the mixture of 7 and 9.



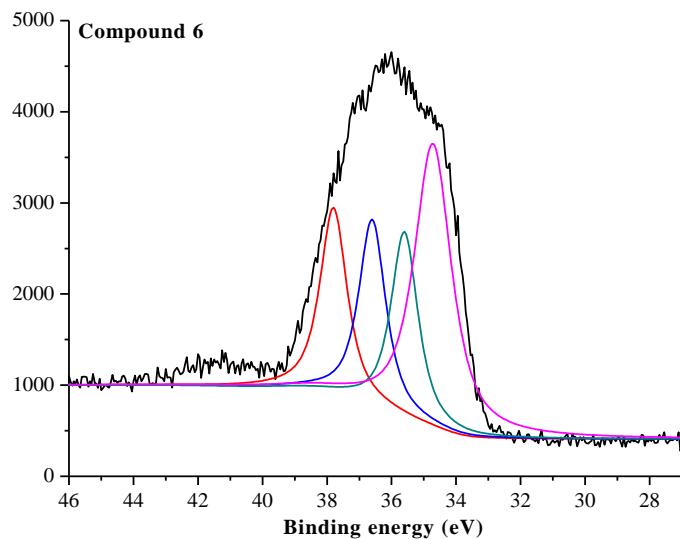
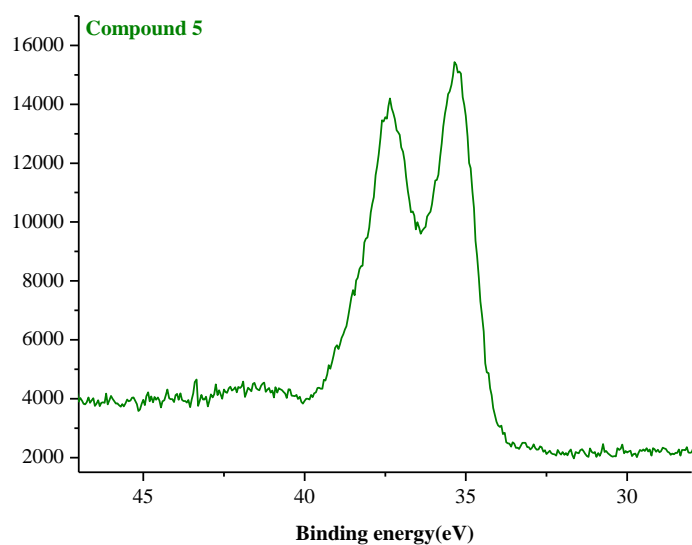
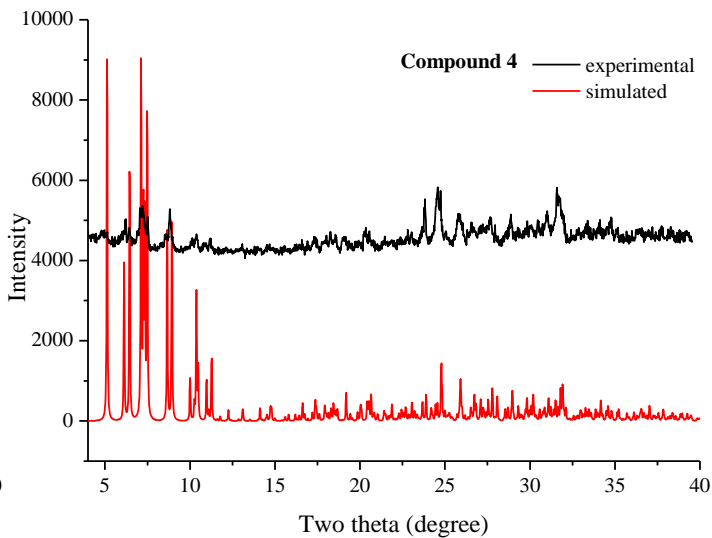
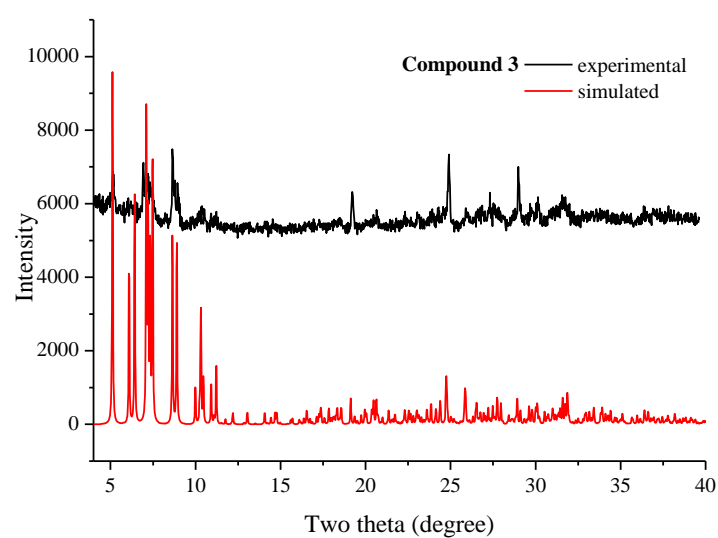
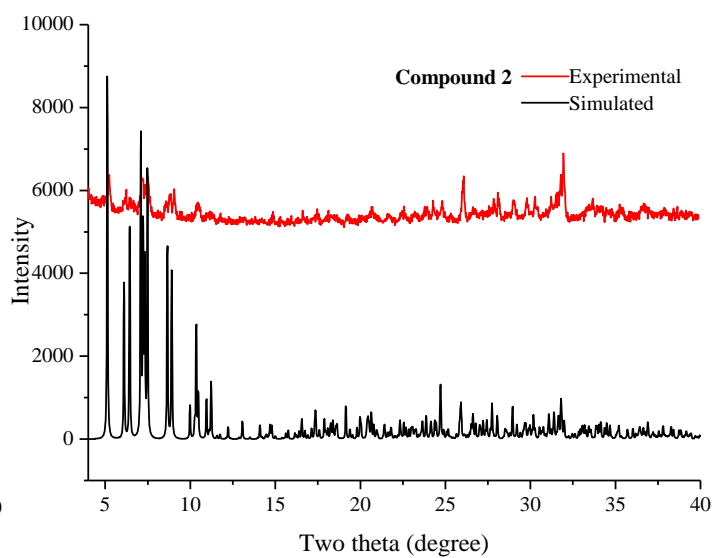
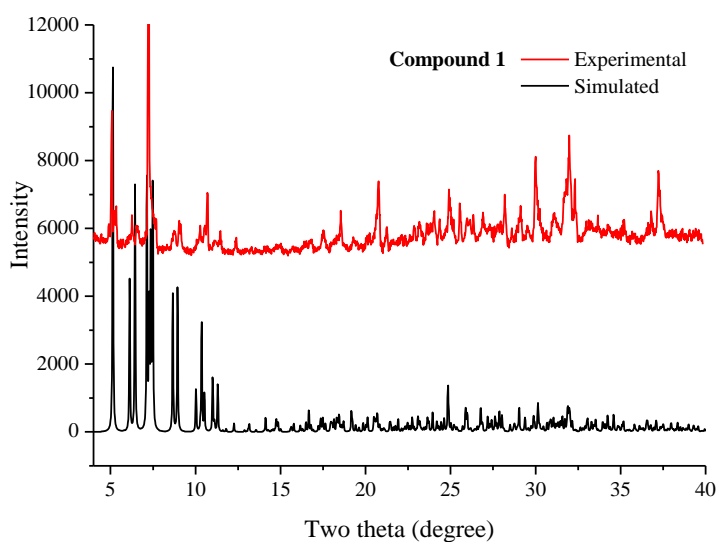


Fig. S5 The XPS spectra for compound 1-6.



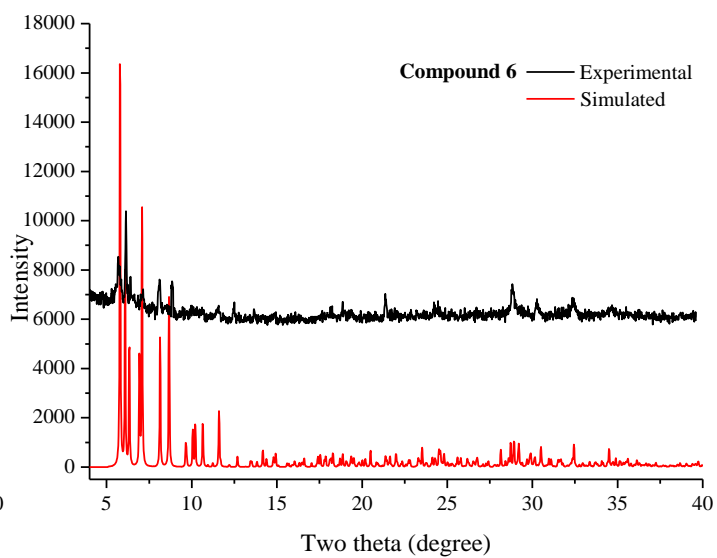
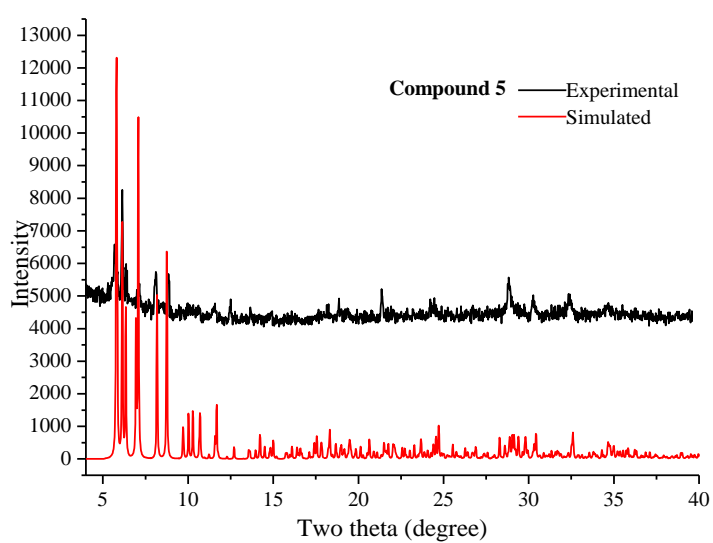
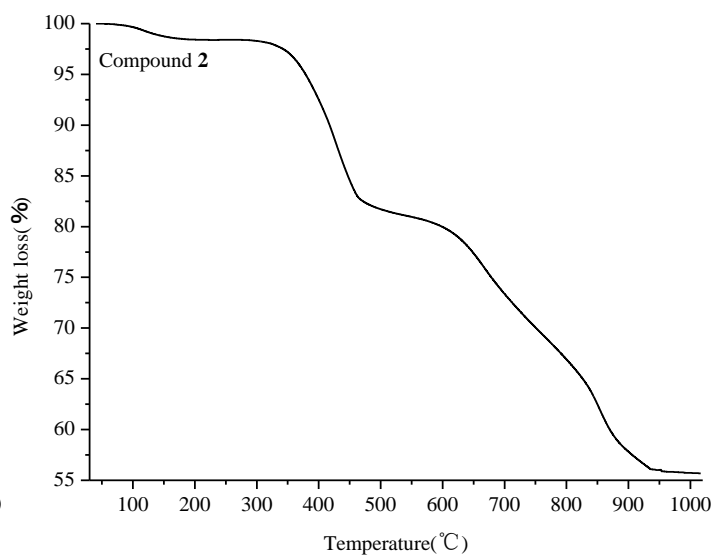
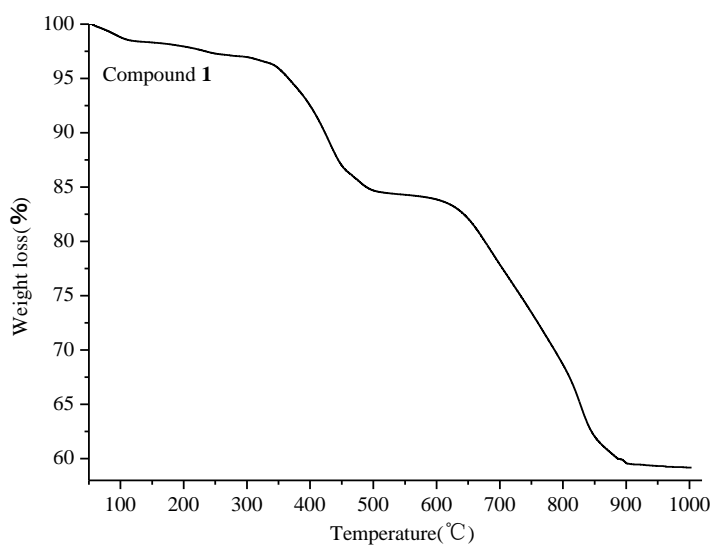


Fig. S6 The XRD spectra for compound 1-6.



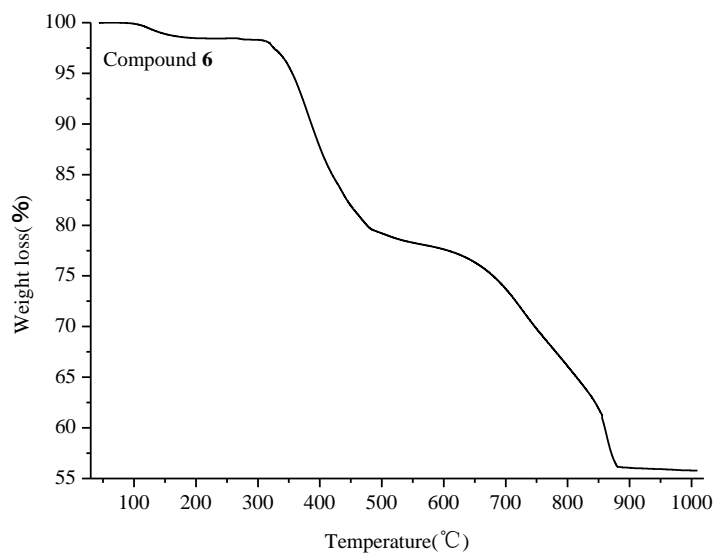
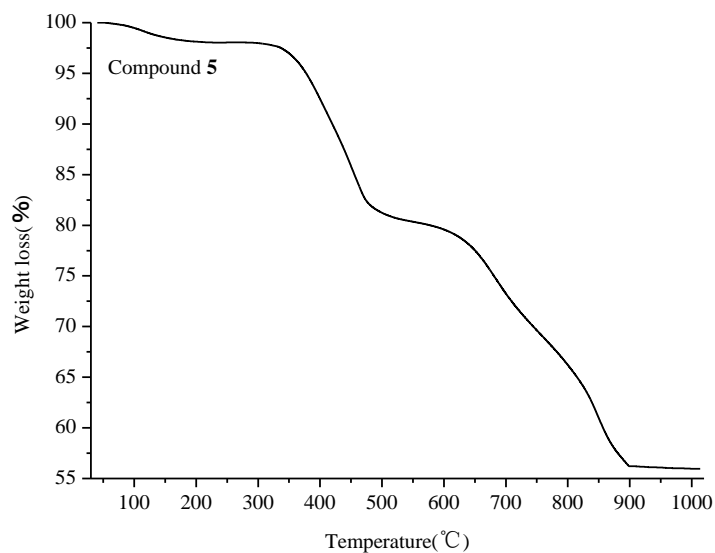
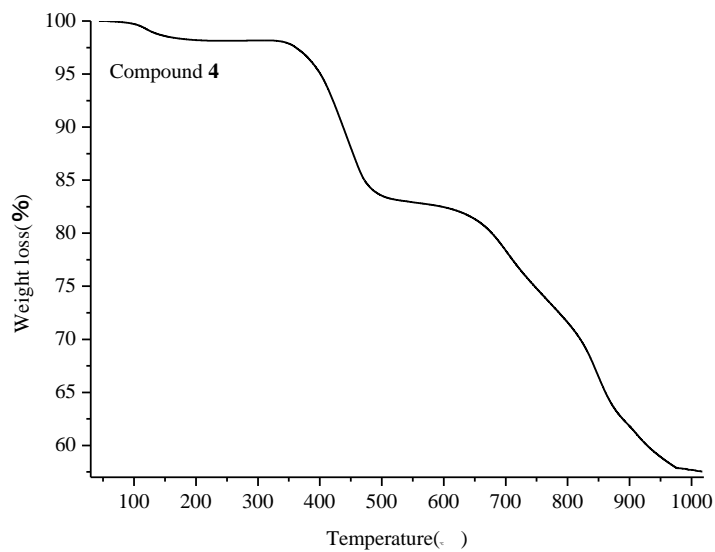
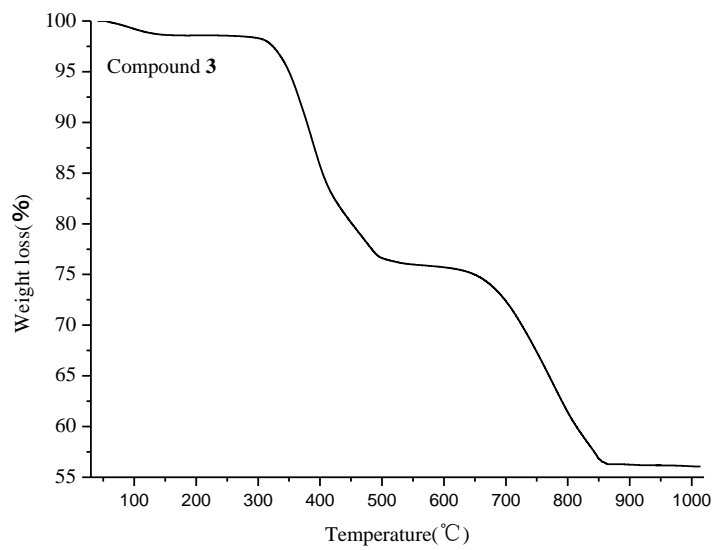


Fig. S7 The TG curves for compound 1-6.