

Fig. s1 the 3-D supramolecular structure of compound 1.

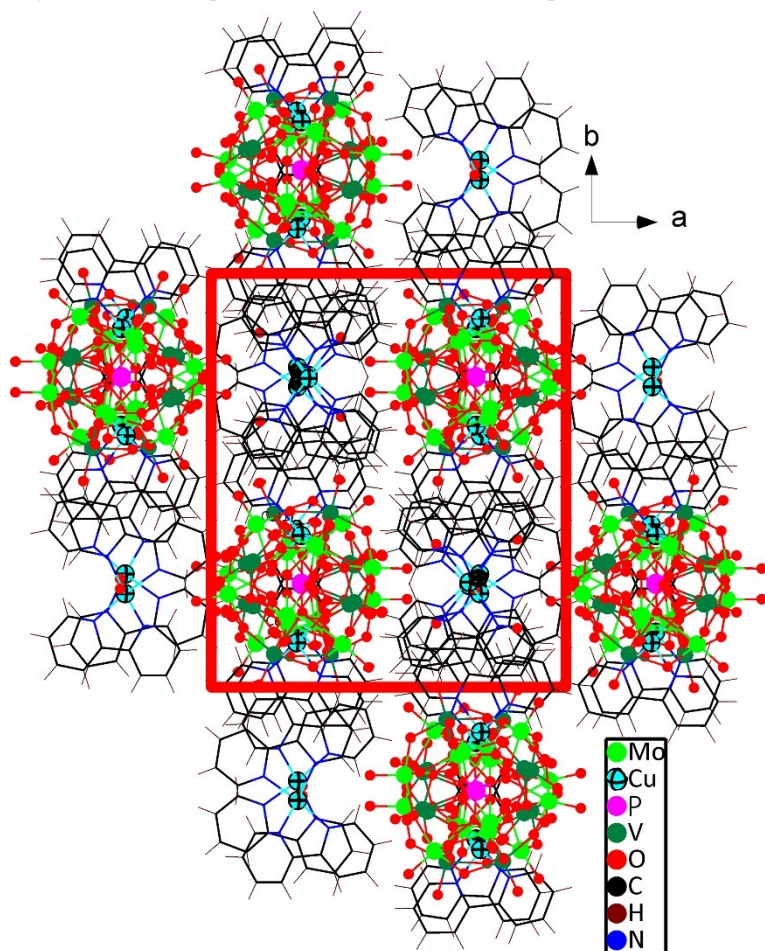
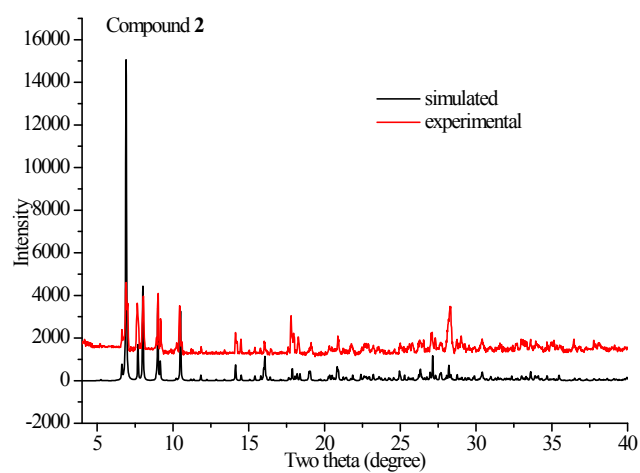
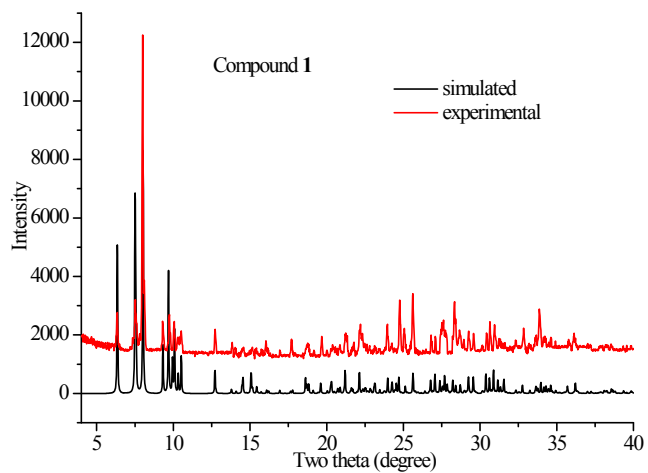


Fig. 2 the 3-D supramolecular structure of compound 2.



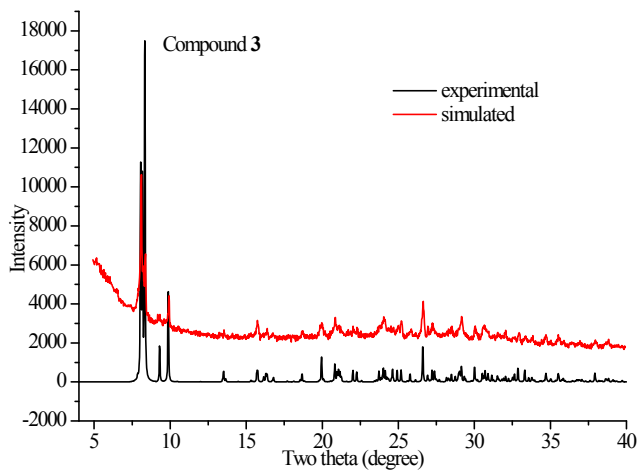


Fig. s3 simulated and experimental XRD patterns of compounds 1-3.

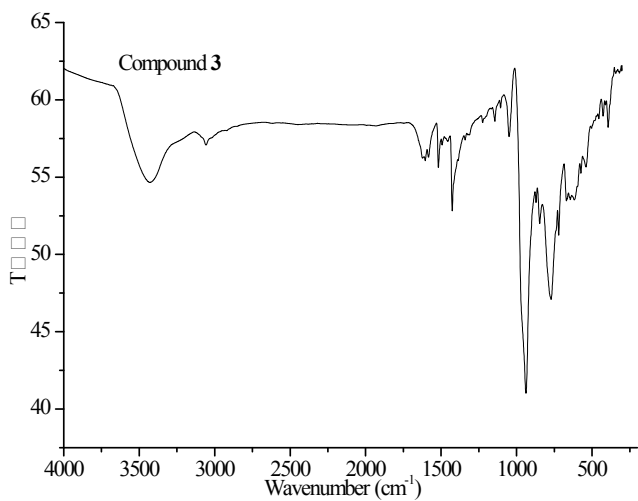
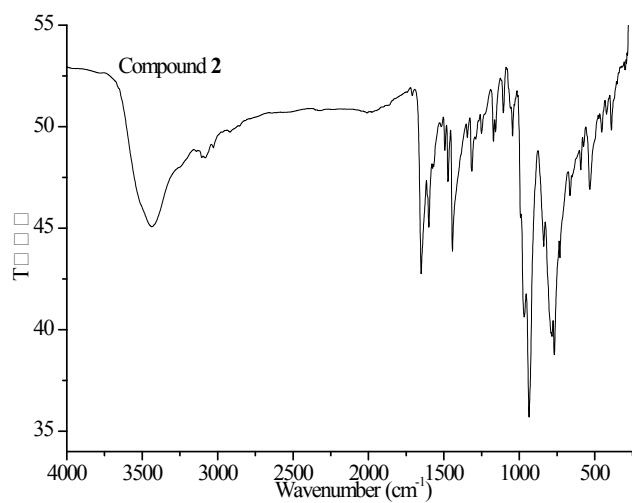
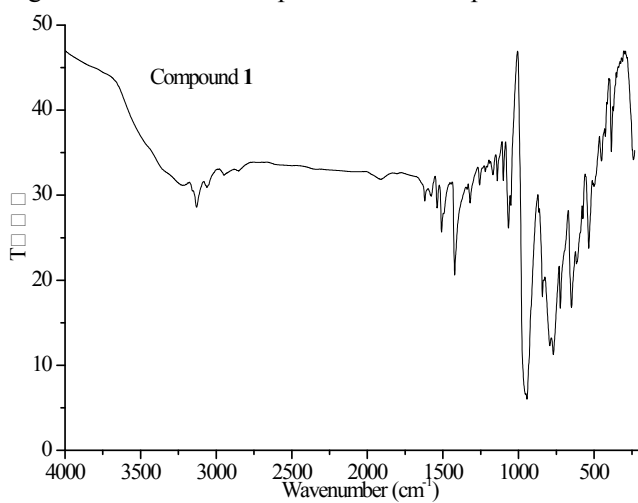


Fig. s4 IR spectra of compounds 1-3.

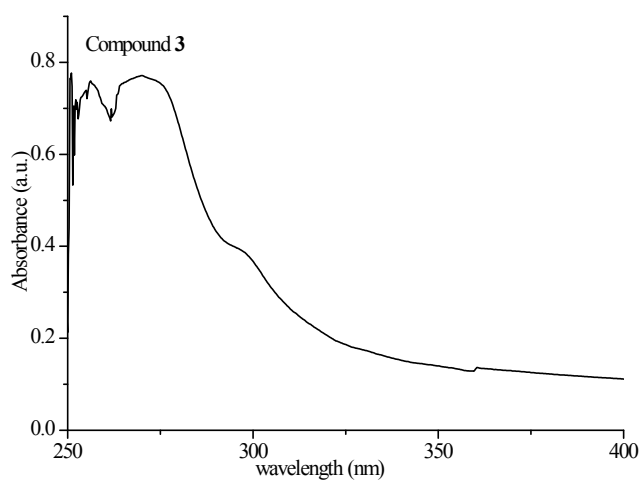
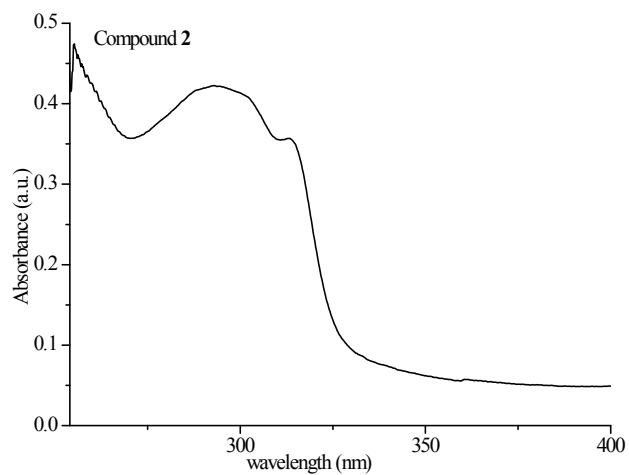
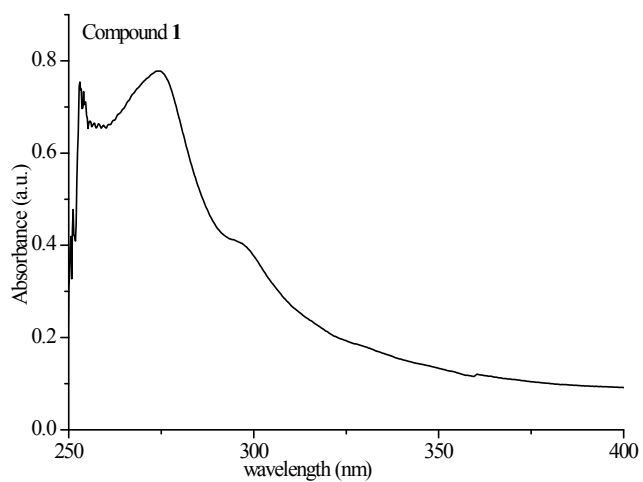
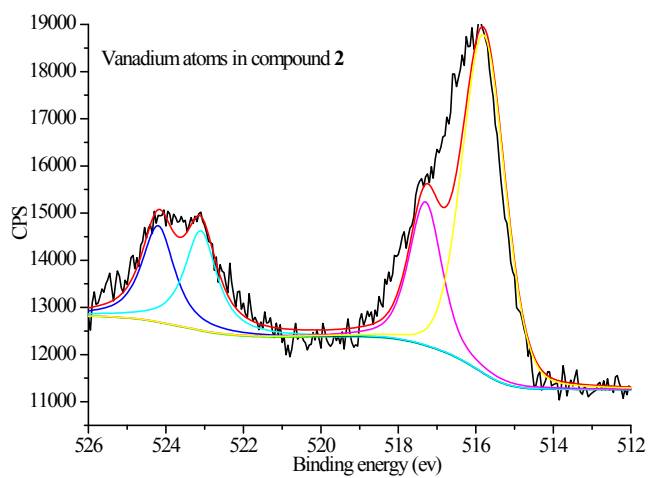
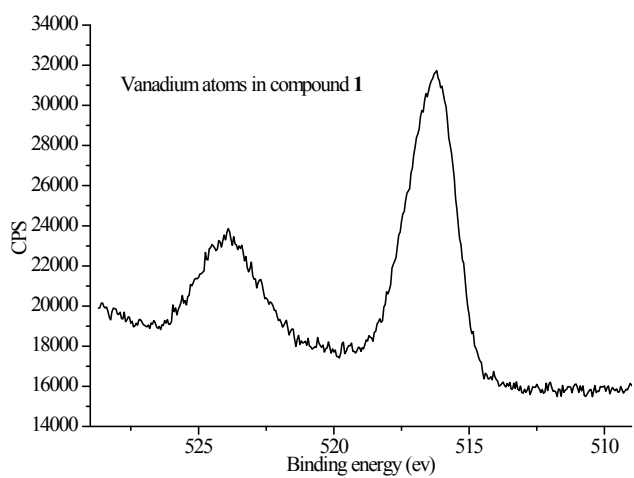


Fig. s5 UV-Vis spectra of compound 1-3.



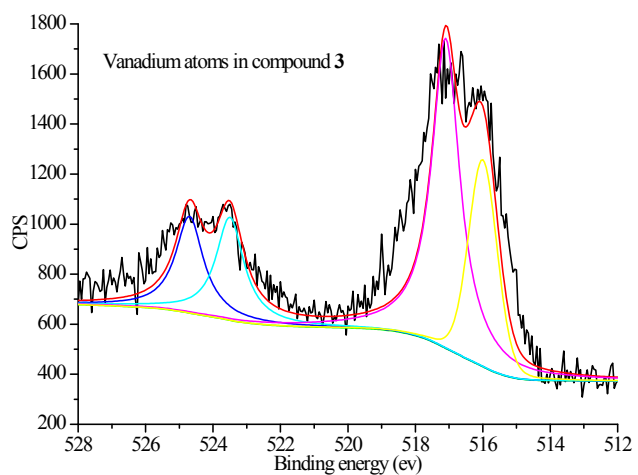


Fig. s6 XPS spectra of vanadiums in compounds 1-3.

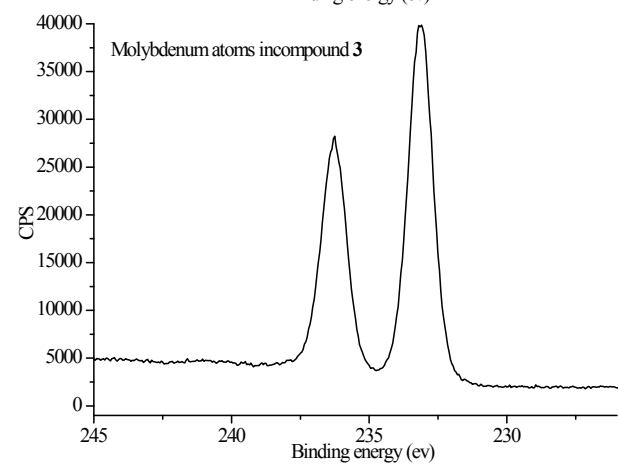
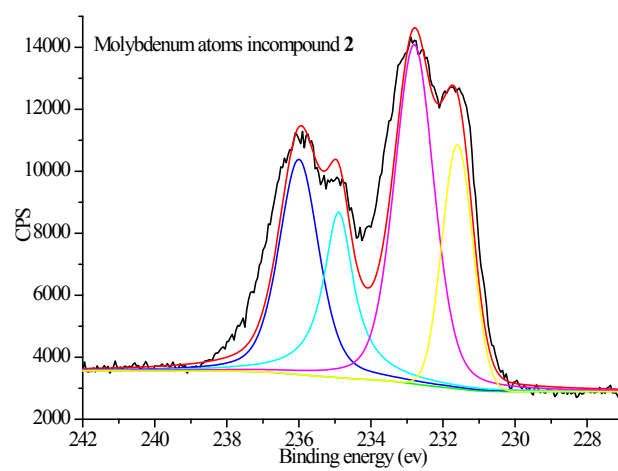
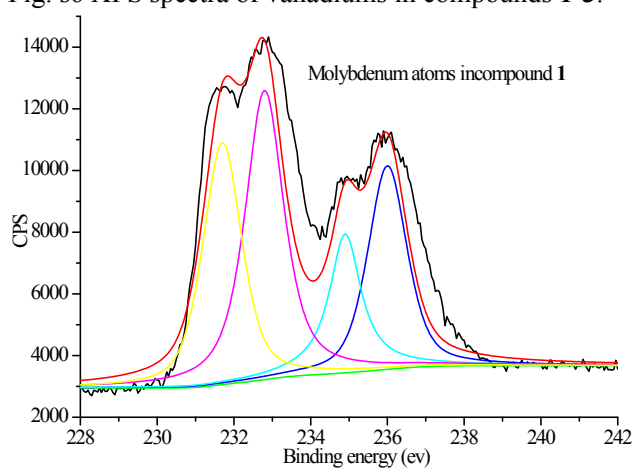
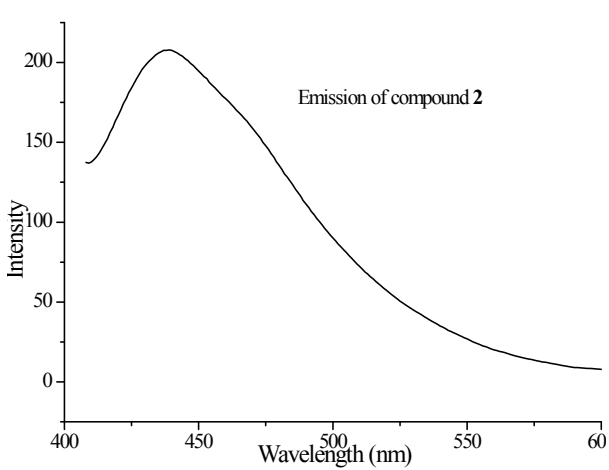
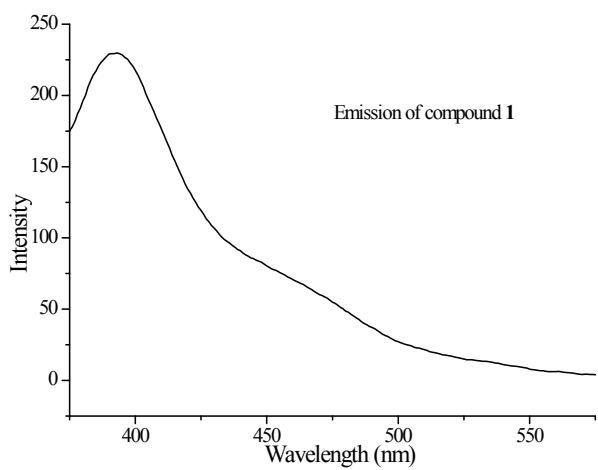
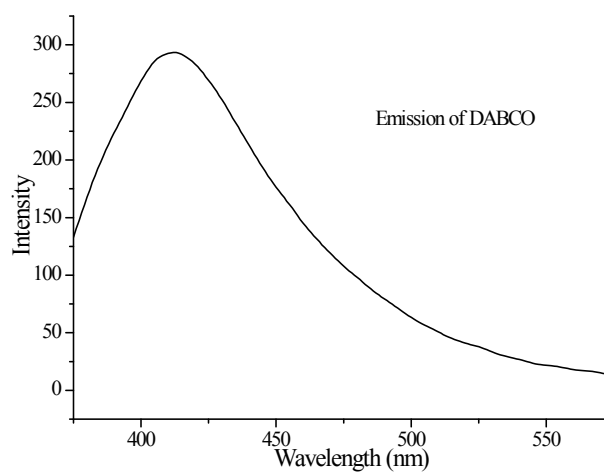
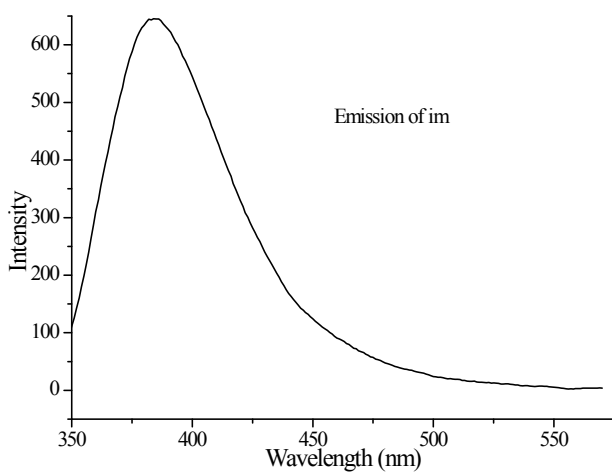
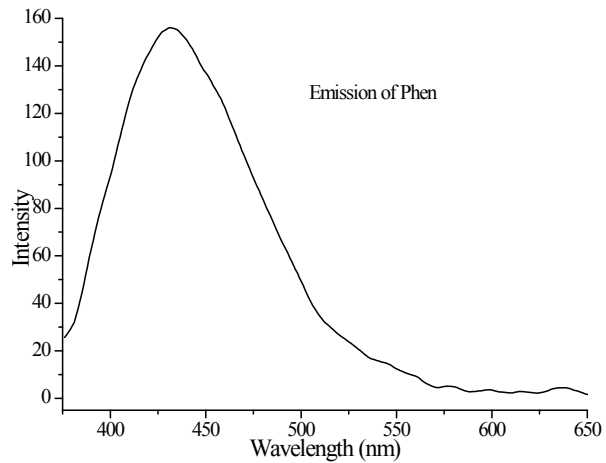
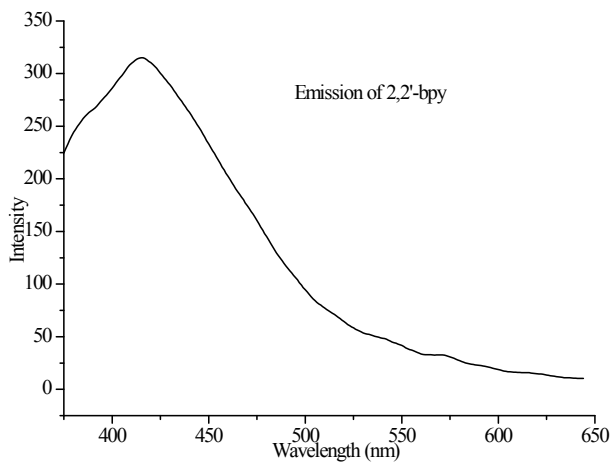


Fig. s7 XPS spectra of molybdenums in compounds 1-3.



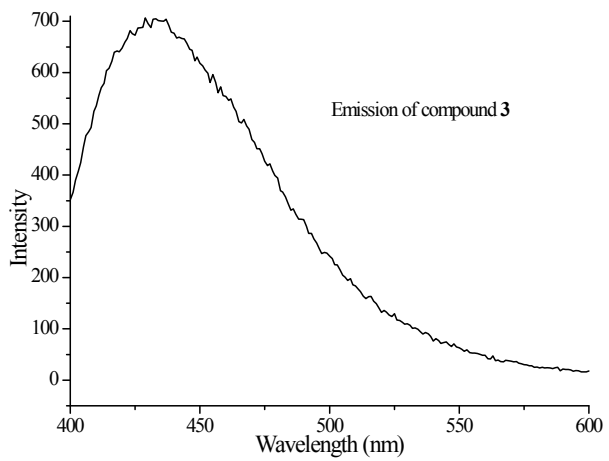


Fig. s8 fluorescent spectra of 2,2'-bpy, phen, im, DABCO and compounds **1-3**.