

Fig. S1 IR spectra of compounds 1-5.

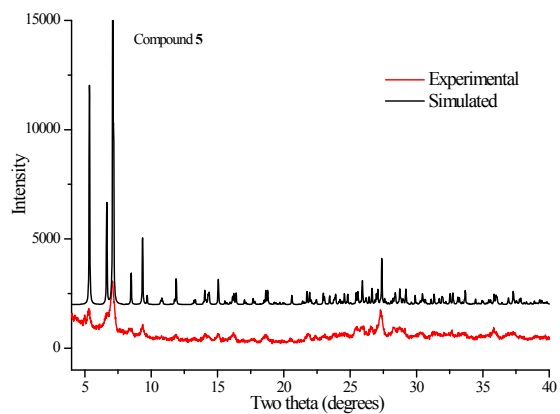
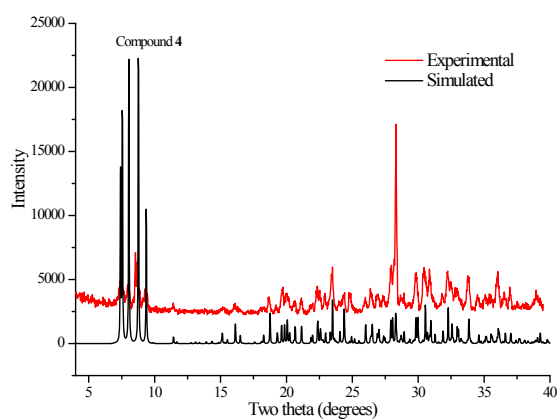
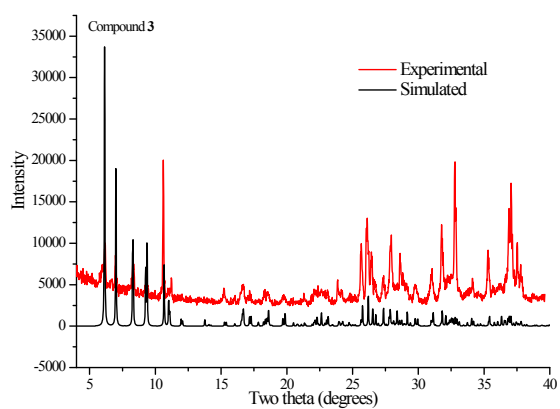
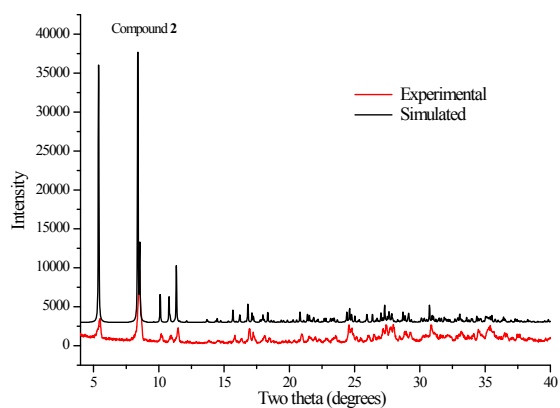
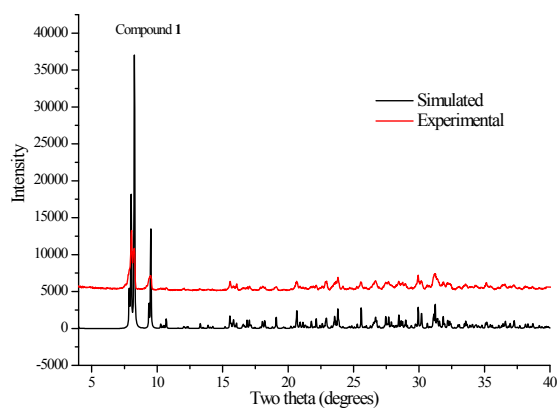


Fig. s2 experimental and simulated XRD patterns of compounds 1-5.

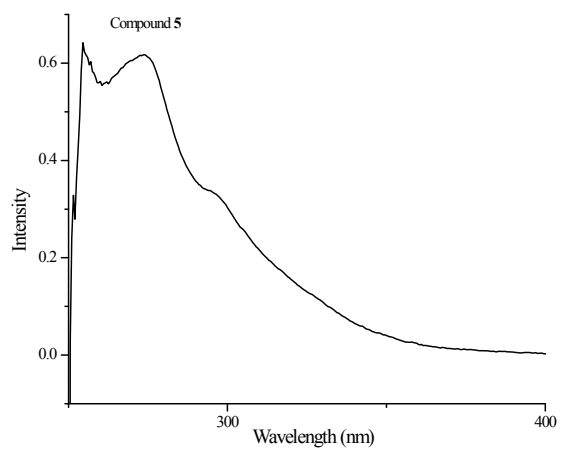
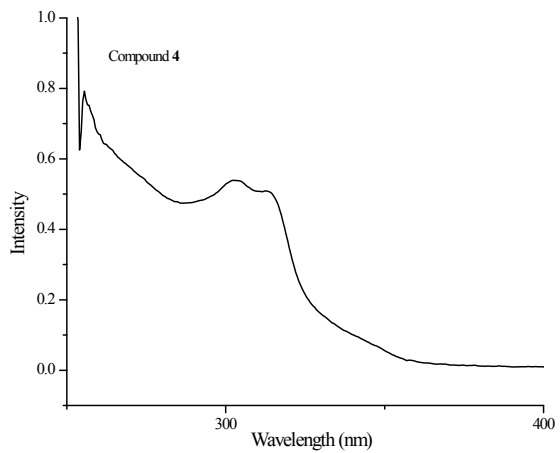
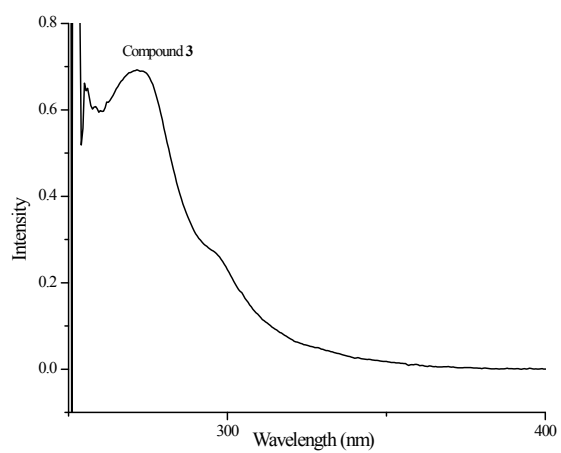
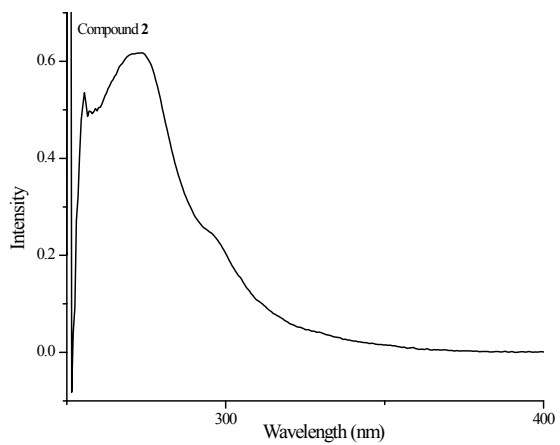
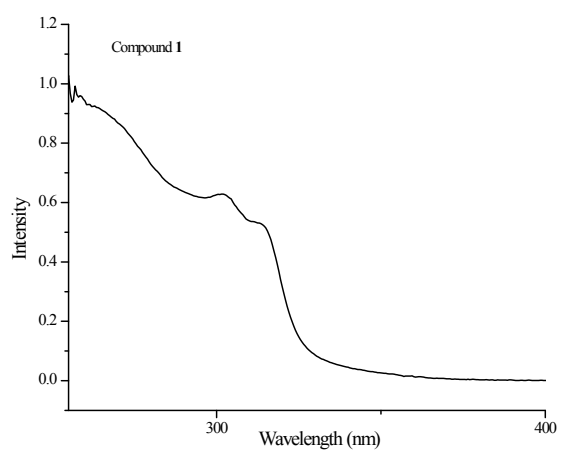


Fig. s3 UV-Vis spectra of compounds 1-5.

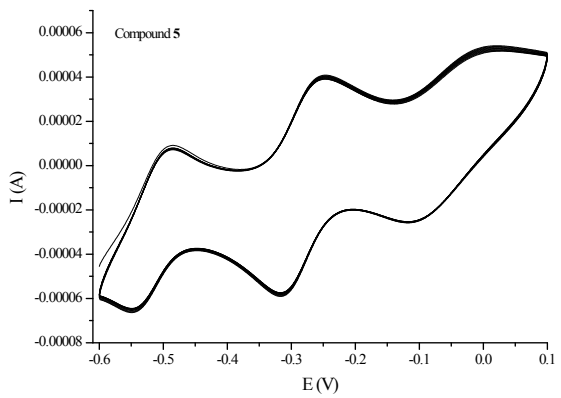
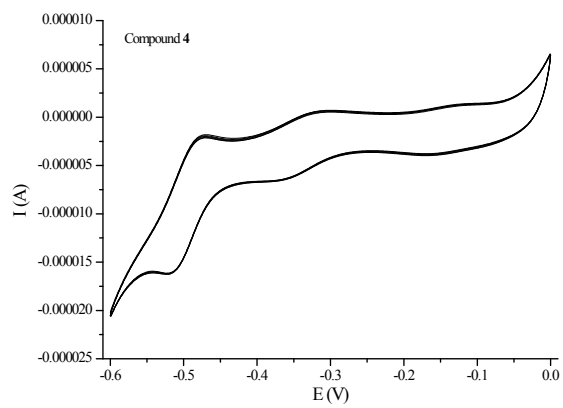
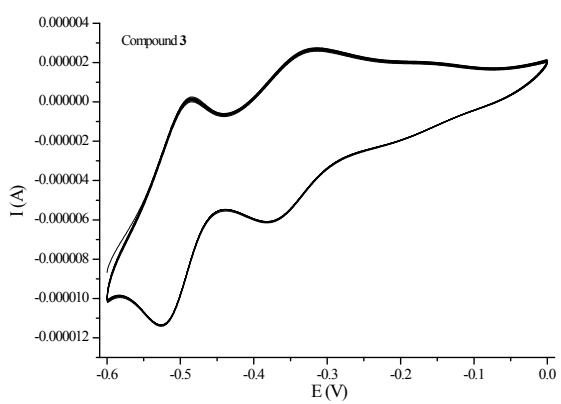
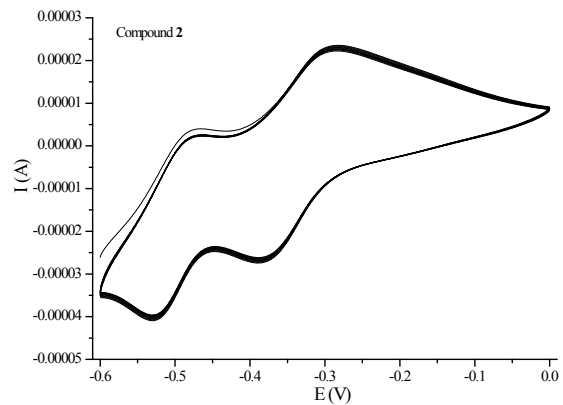
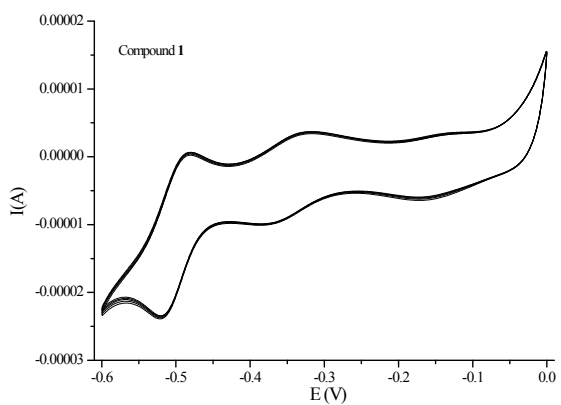


Fig. s4 cyclic voltammograms of CPEs 1-5.

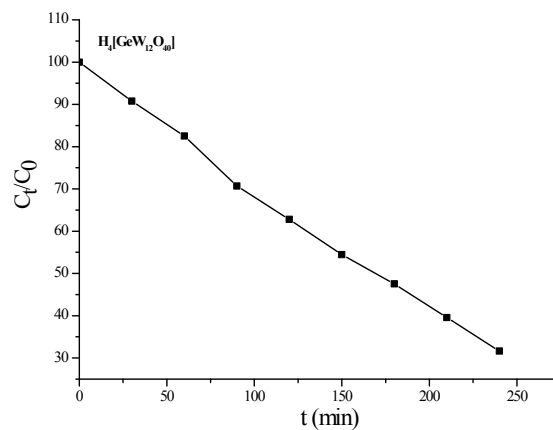
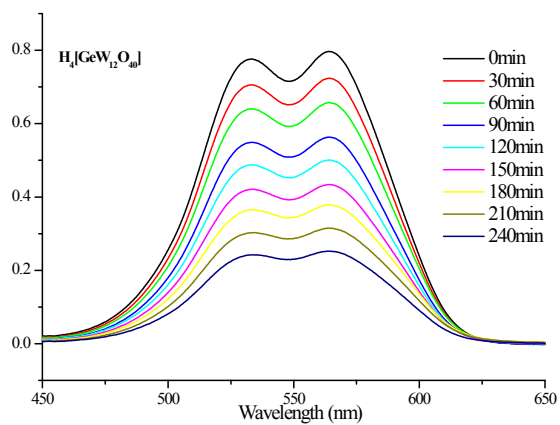


Fig. s5 photodegradation properties of H₄[GeW₁₂O₄₀].

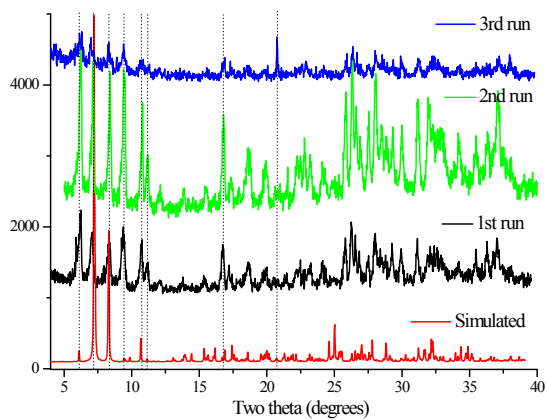


Fig. s6 the simulated and X-ray powder diffraction patterns after three runs of repeated experiments of compound 3.

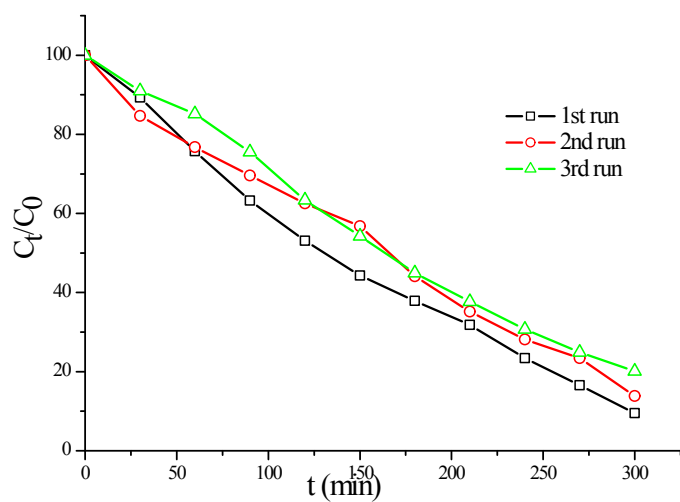


Fig. s7 Repeated catalytic experiments results of RhB.