

Fig. S1

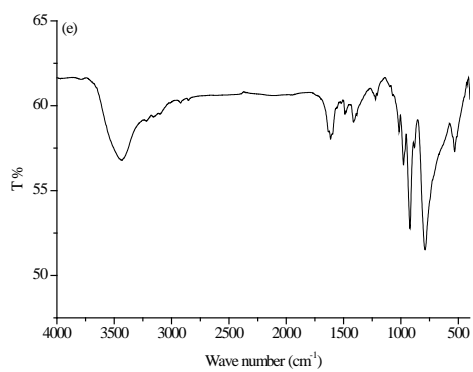
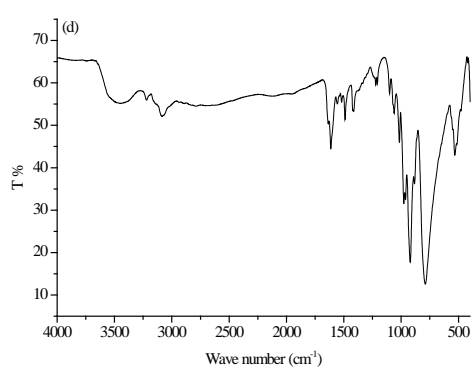
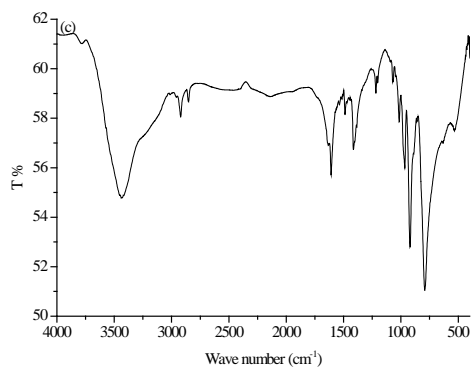
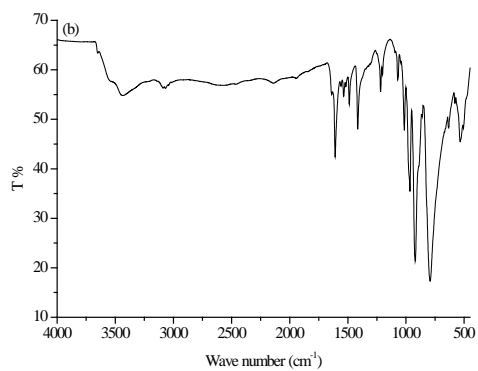
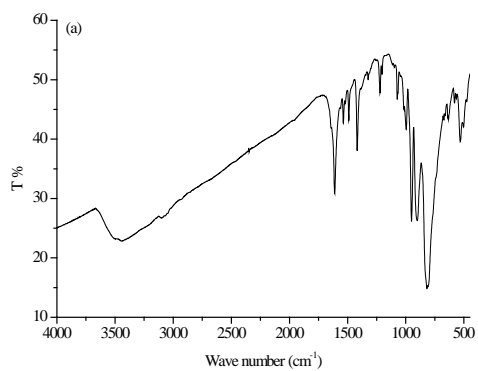


Fig. S2. The IR spectra for compound **1** (a), compound **2** (b), compound **3** (c), compound **4** (d) and compound **5** (e).

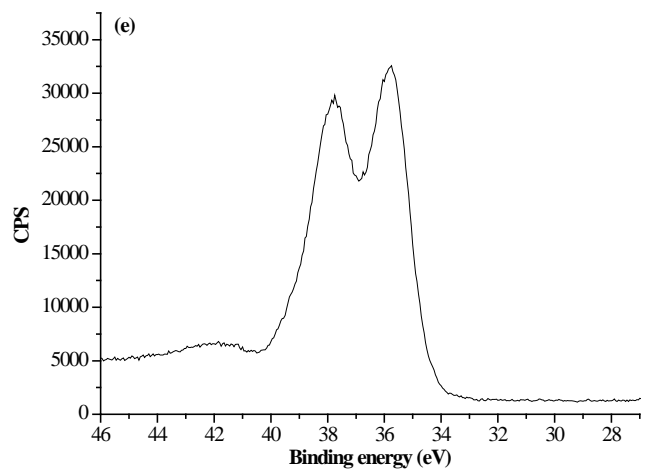
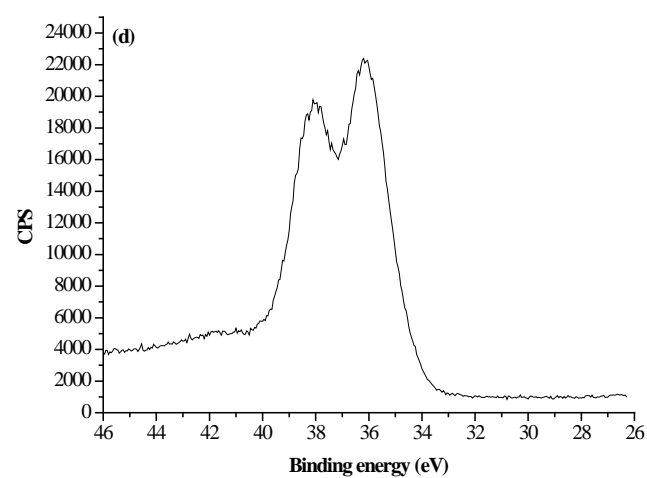
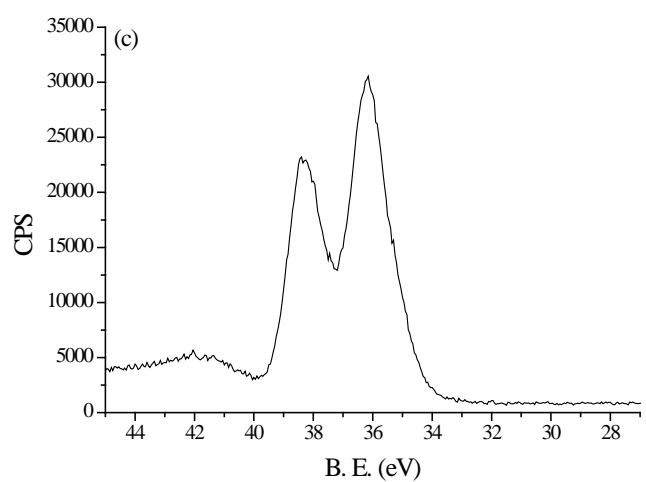
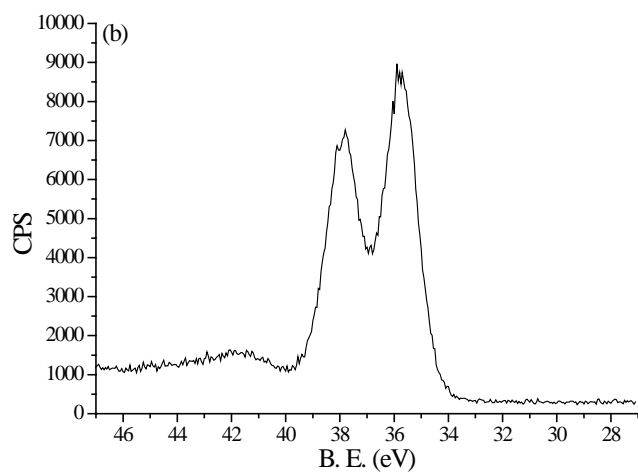
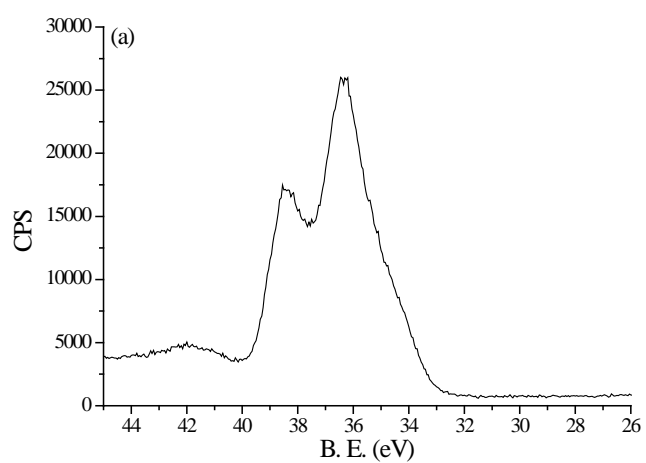


Fig. S3, the XPS spectra for compound **1** (a), compound **2** (b), compound **3** (c), compound **4** (d) and compound **5** (e).

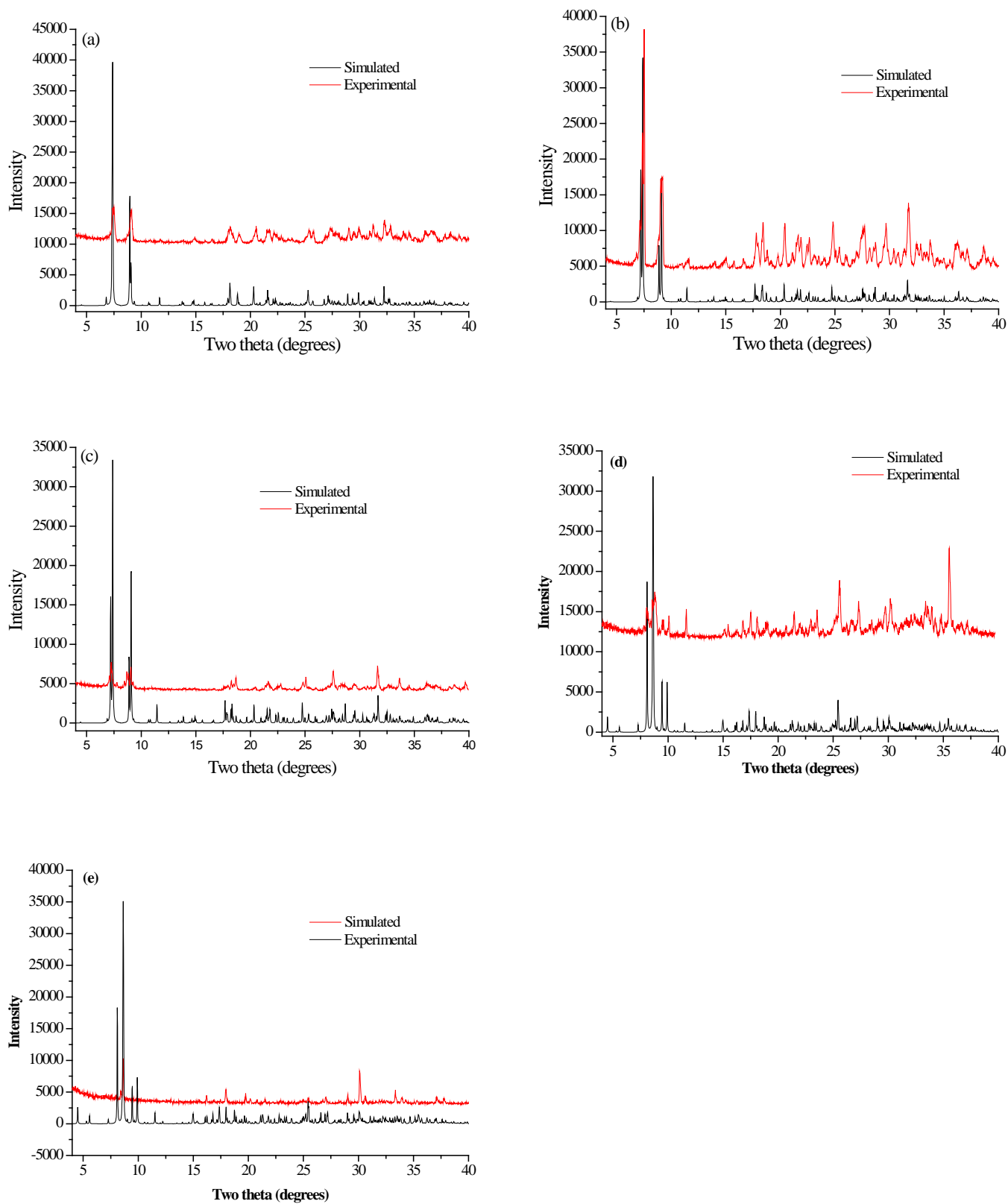


Fig. S4. (a) The experimental and simulated XRD pattern for compound **1**. (b) The experimental and simulated XRD pattern for compound **2**. (c) The experimental and simulated XRD pattern for compound **3**. (d) The experimental and simulated XRD pattern for compound **4**. (e) The experimental and simulated XRD pattern for compound **5**.

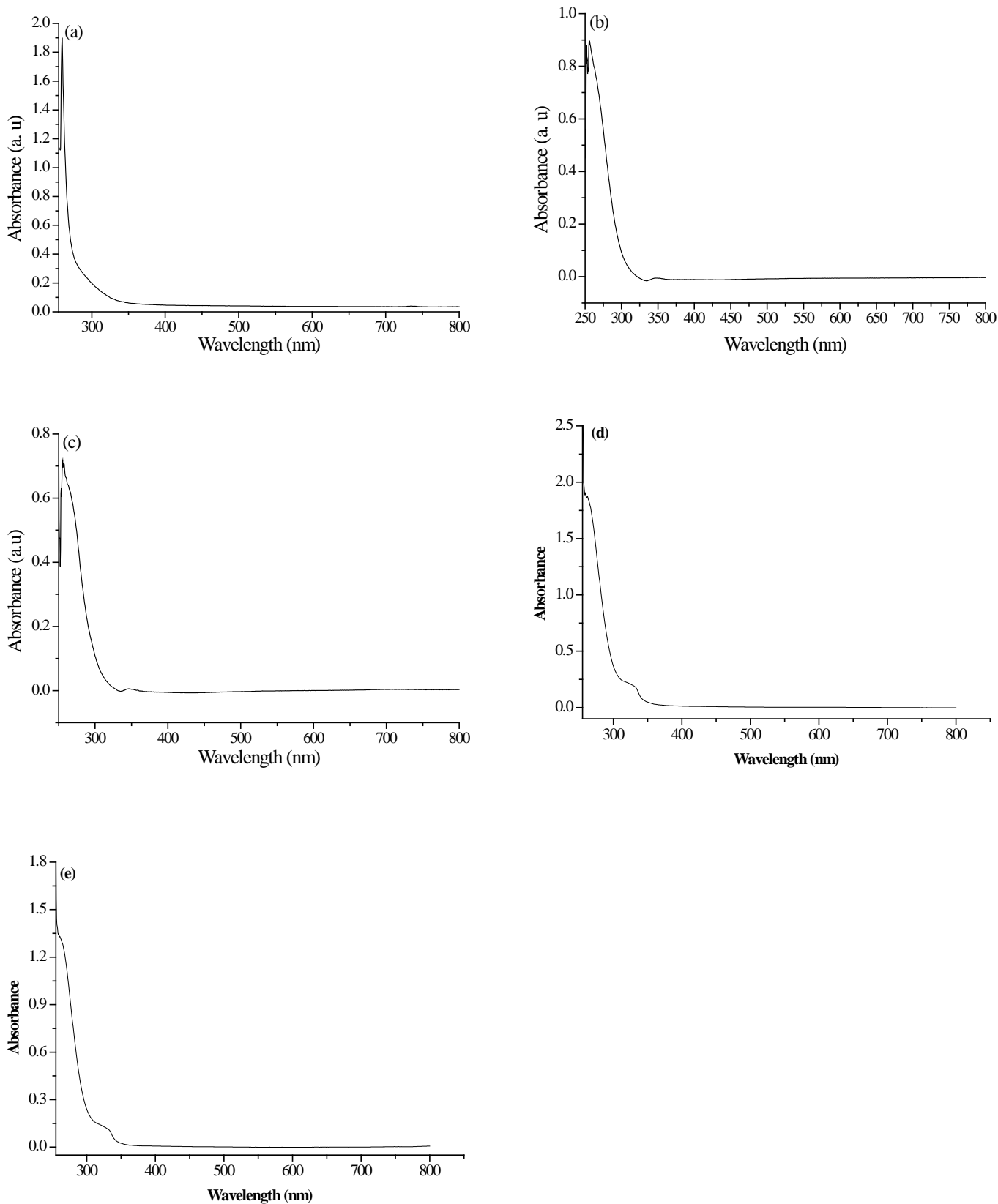


Fig. s5. The UV-Vis spectra for compound **1** (a), **2** (b), **3** (c), **4**(d) and **5**(e).

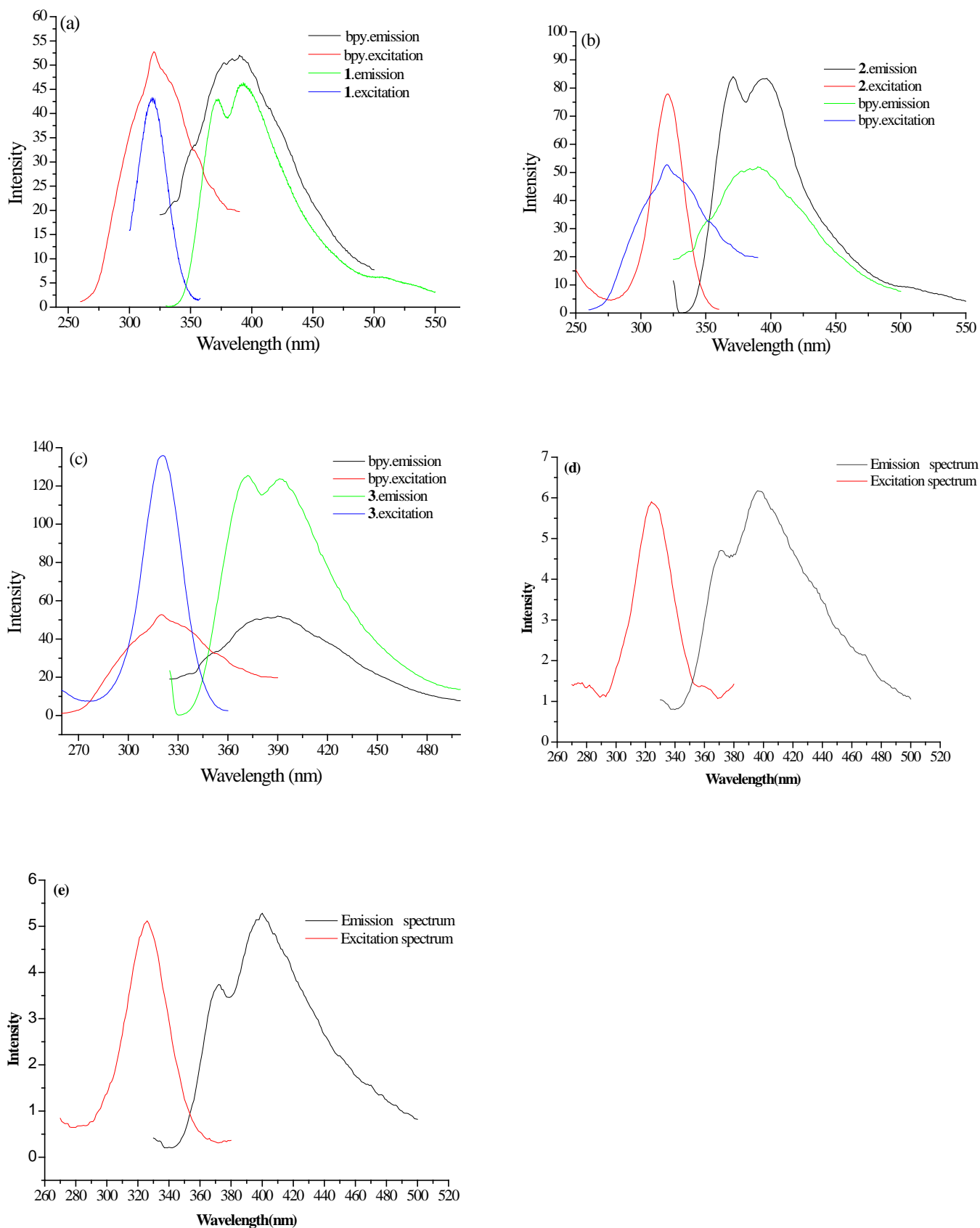


Fig. S6. The fluorescence properties of the free 4,4'-bpy and the compound **1** (a), **2** (b), **3** (c), **4** (d) and **5** (e) in the solid state at room temperature.

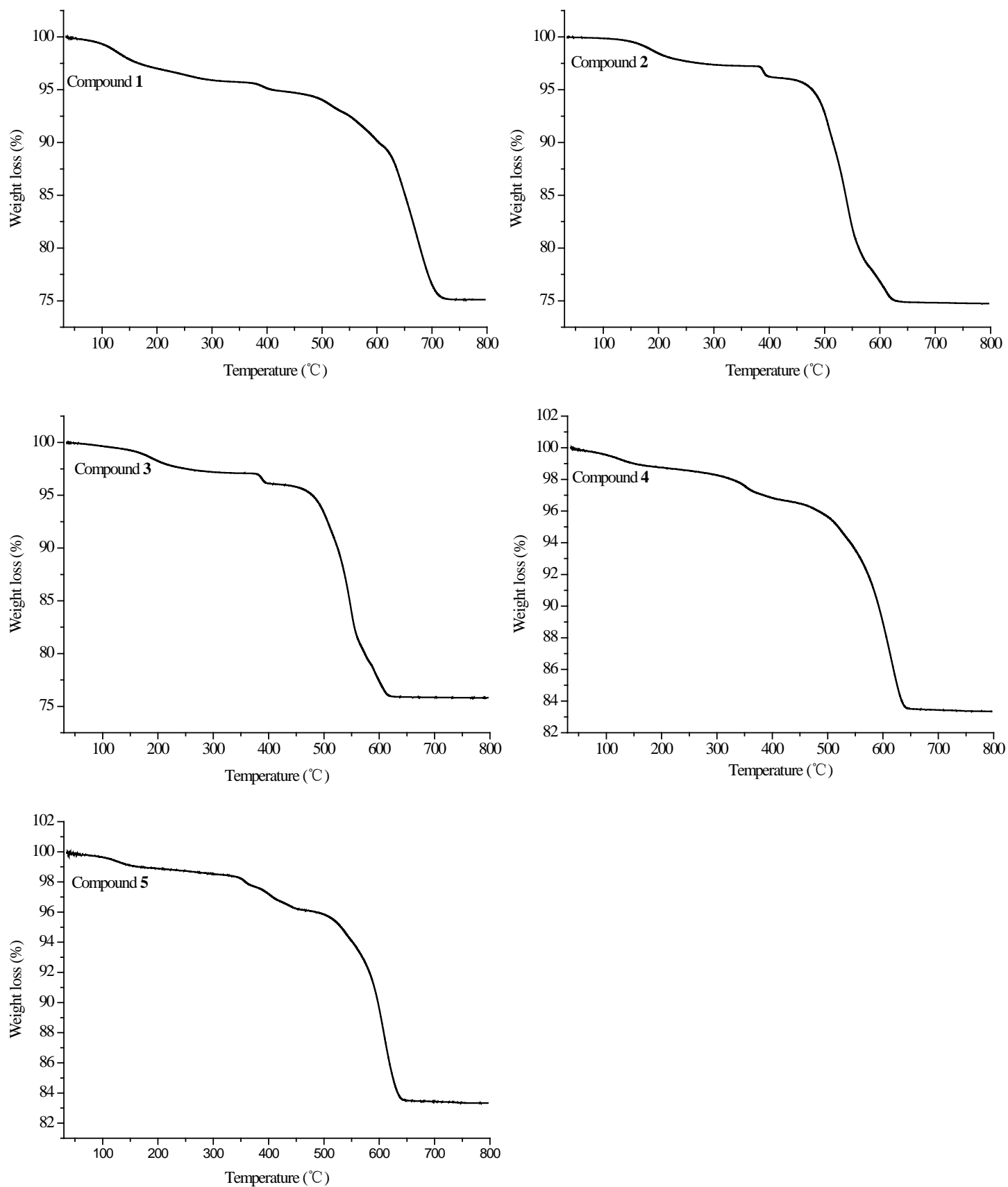


Fig.s7. the TG curves for compound 1-5.

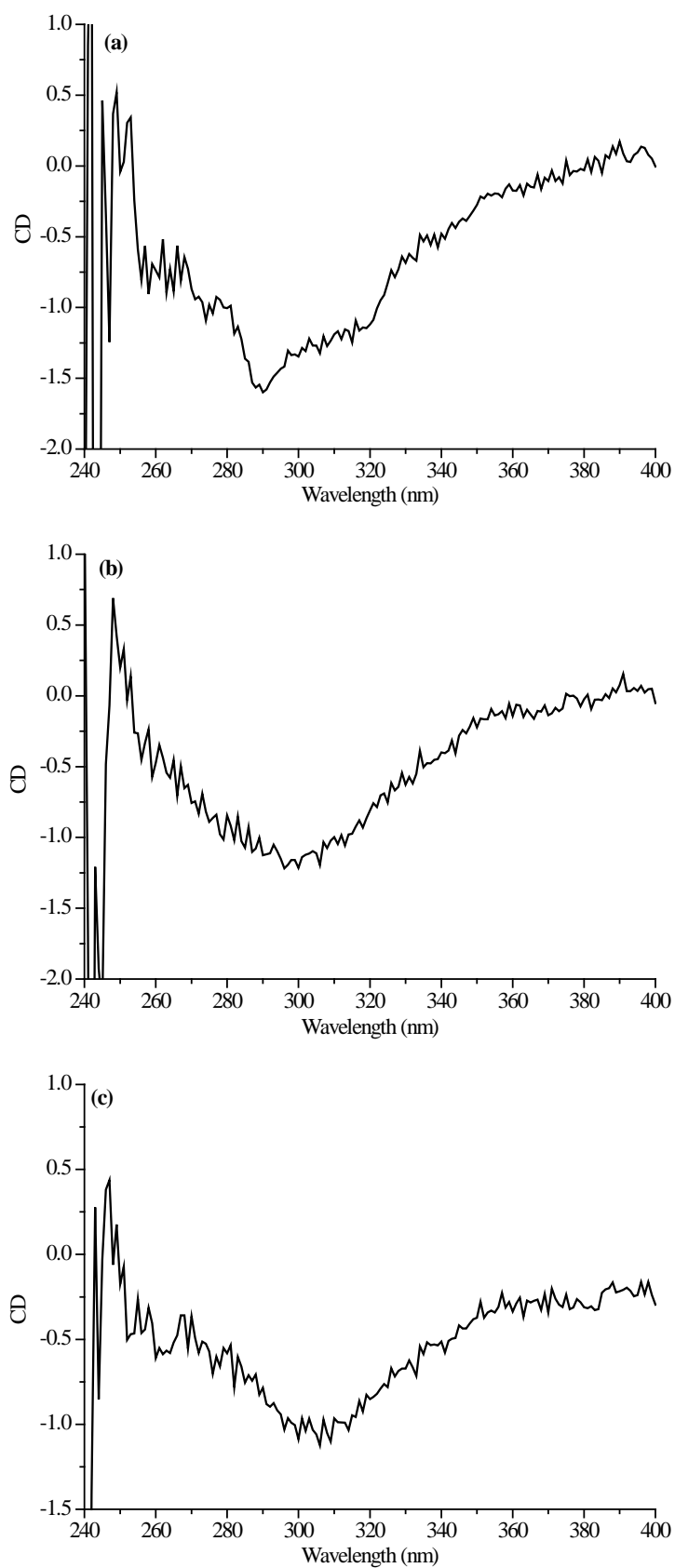


Fig. S8. The CD spectra for compound **1** (a), compound **2** (b) and compound **3** (c).