

**Fig. 1** High angle X-ray diffraction pattern of MBN and MBCN nanocages

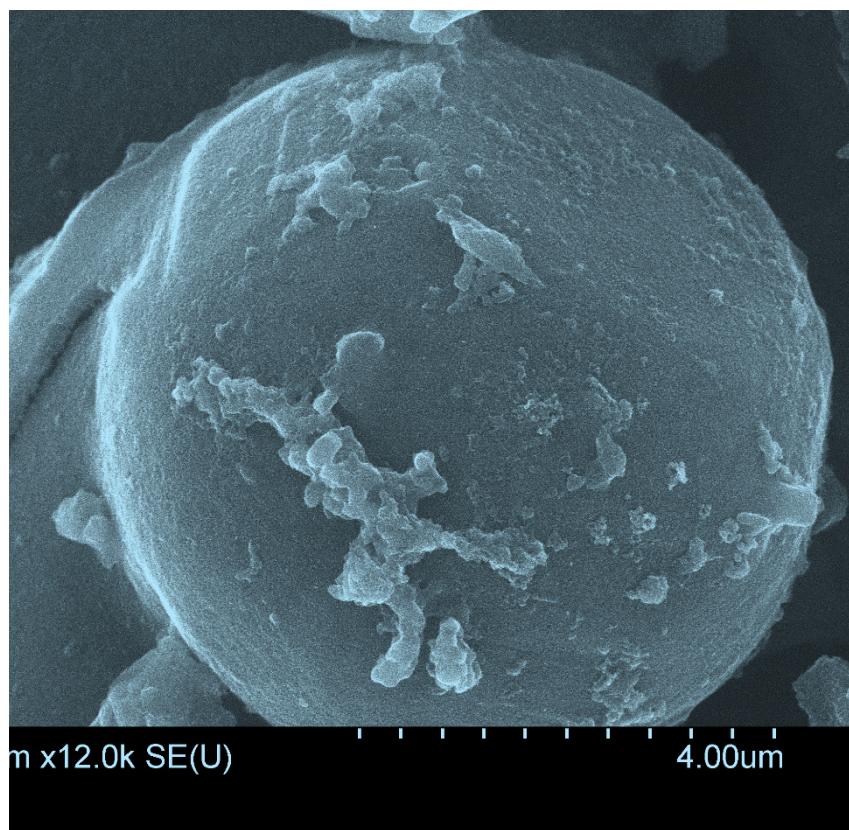
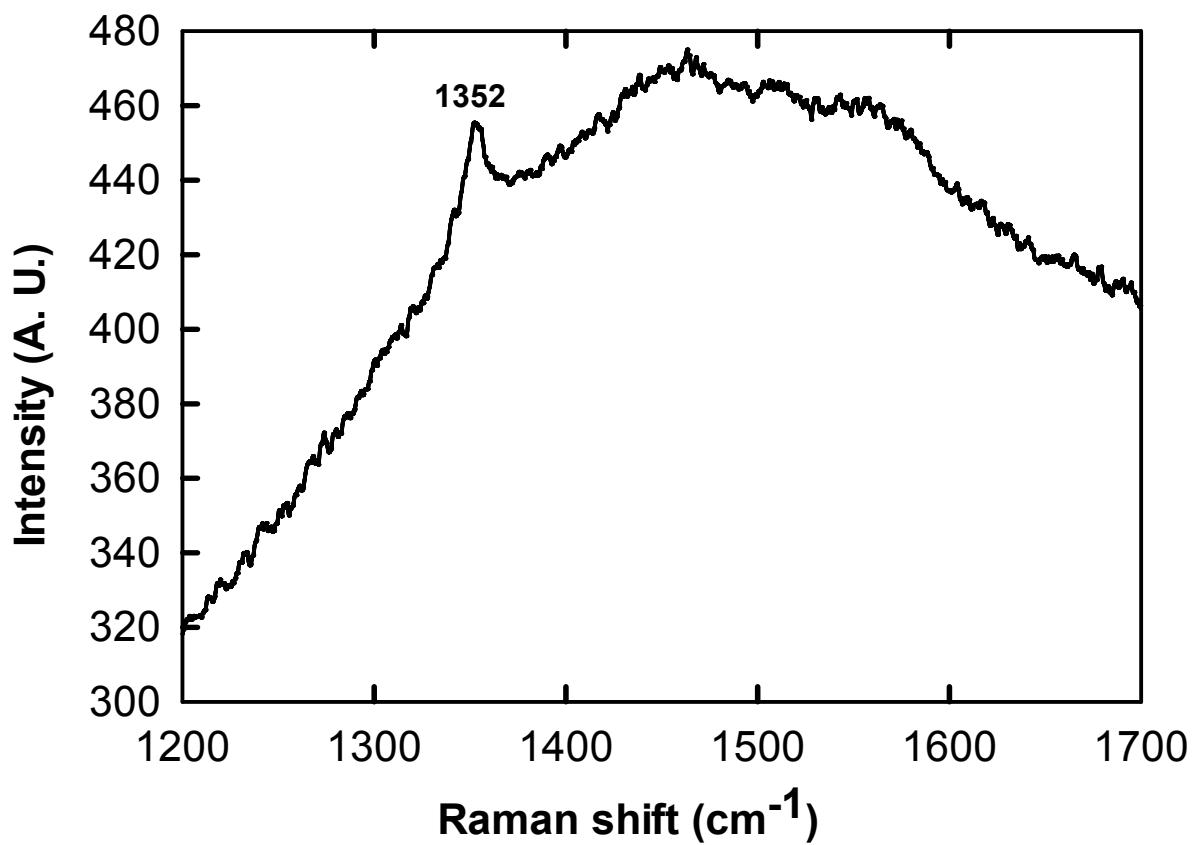
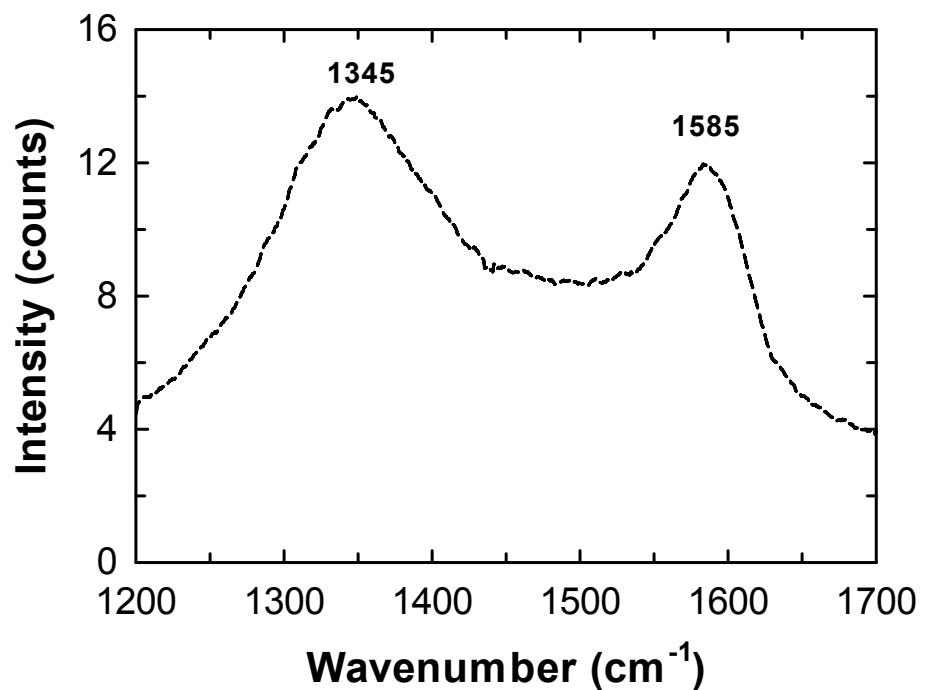


Fig. 2S: HRSEM image of carbon nanocage



**Fig. 3a** - Raman spectrum of MBN nanocage



**Fig. 3b** - Raman spectrum of MBCN nanocage