

**Electronic Supplementary Information** 

Fig. S1. AFM height images (2D model (a) and 3D model (b)) of HBPE-*g*-PMAA in aqueous solution with a concentration of 0.25 mg/mL.



Fig. S2. a) Diameter distributions by volume from LLS of HBPE-*g*-PMAA in aqueous solution and b) Zeta potential of HBPE-*g*-PMAA in aqueous solution.



Fig. S3. SEM images of pristine MWCNTs (a) and MWCNTs dispersed by HBPE-*g*-PMAA with different mass ratio of HBPE-*g*-PMAA/MWCNTs. 0.25 (b), 0.5 (c), 1.0 (d), 2.0 (e) and 5.0 (f). Scale bar: 500 nm.