†Supporting Information

**Fig. S.1.** XRD pattern of MCNC0.05 composites.

**Fig. S.2.** Histogram of MNPs for all MCNC samples obtained from ImageJ analysis. (a) MCNC0.01, (b) MCNC0.05, (c) MCNC0.1, (d) MCNC0.5, (e) MCNC1.

**Fig. S.3.** Contact angle of water droplet on the surface of a thin film of (a) MCNC1, (b) MCNC0.5, (c) MCNC0.1, (d) MCNC0.05, (e) MCNC0.01, (f) CNC, and (g) MNP.