

Supplementary information

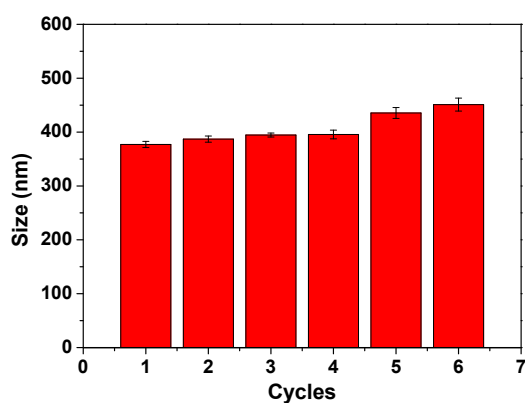


Fig.S1. Particle size of Ly/XG NPs with different switchable cycles at pH 7.0.

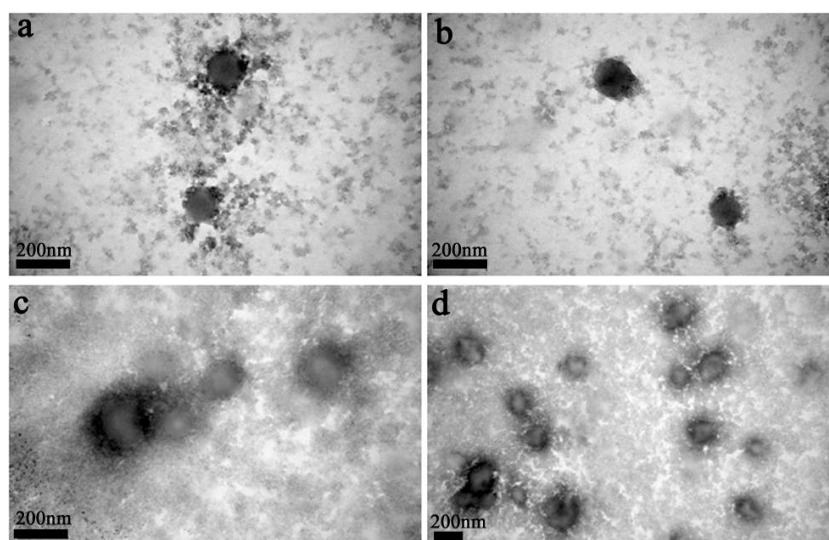


Fig.S2. Morphology of Ly/XG NPs with different switchable cycles (a cycle 1, b cycle 2, c cycle 4, d cycle 6) at pH 7.0.

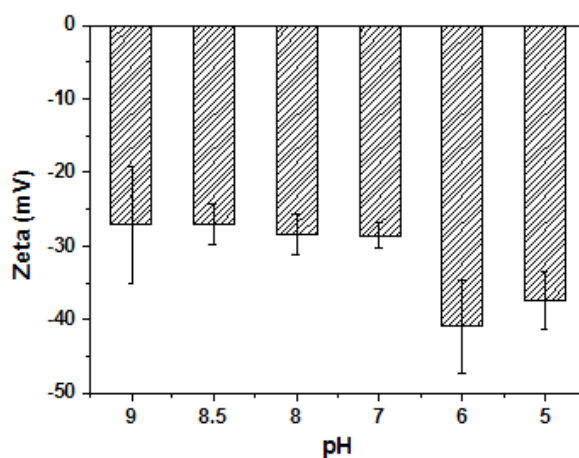


Fig.S3 Zeta potential of Ly/XG solutions at different pH conditions

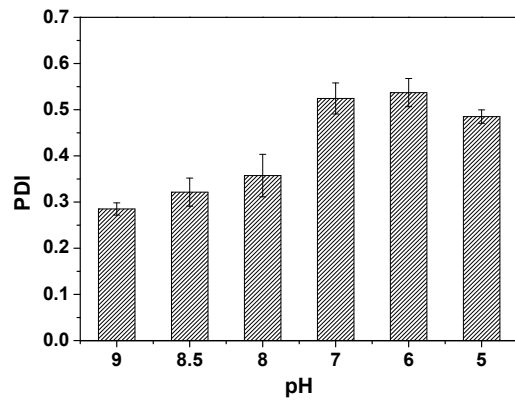


Fig.S4 The polydispersity of Ly/XG NPs at different pH conditions

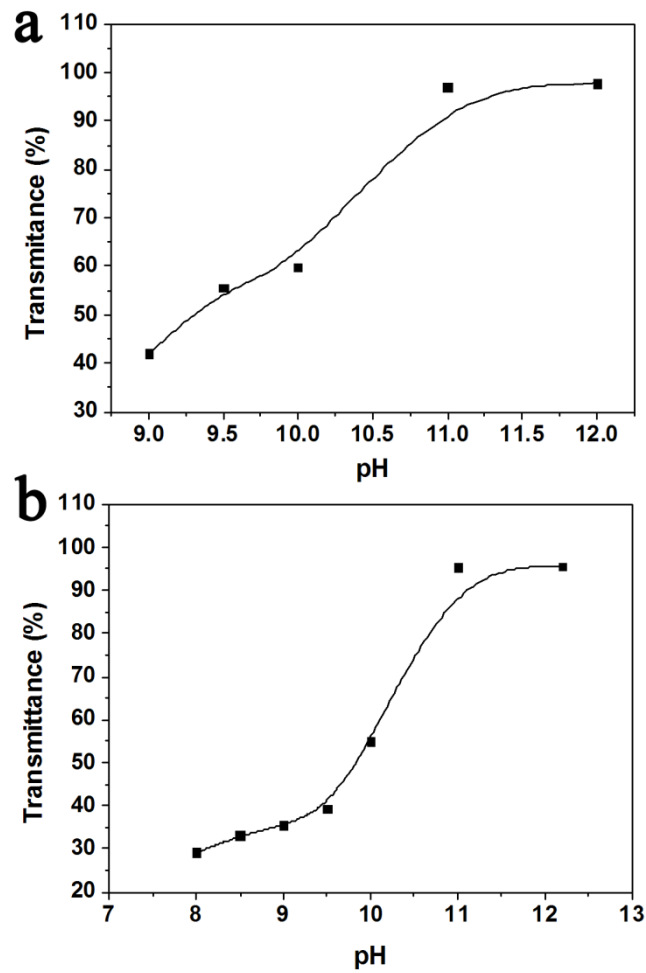


Fig.S5 Transmittance of Ly/XG solutions as the of pH of 12 (a) and 12.2 (b)

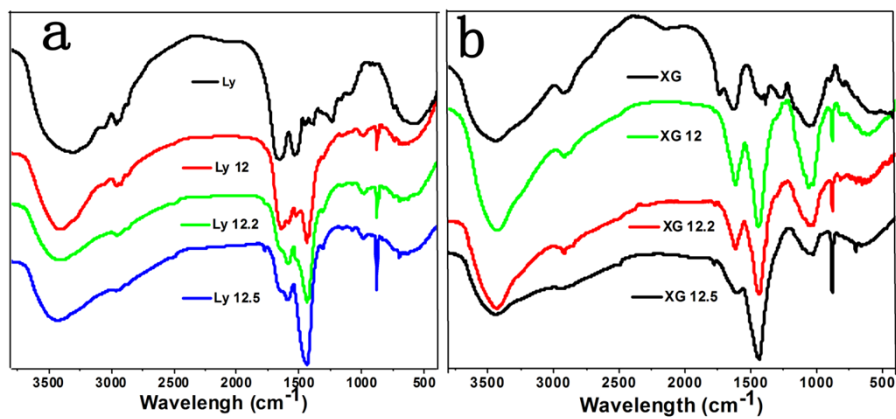


Fig.S6 FTIR of Ly (a) and XG (b) that heated at different pH as compared with undisposed samples