

Stability, Scalability, and Reusability of a Volume Efficient Biocatalytic System Constructed on Magnetic Nanoparticles

Gayan Premaratne,^a Rajasekhara Nerimetla,^a Ryan Matlock,^a Loren Sunday,^a Rangika S. Hikkaduwa Koralege,^b Joshua D. Ramsey,^b and Sadagopan Krishnan^{a,*}

^a Department of Chemistry, Oklahoma State University, Stillwater, OK 74078, USA.

E-mail: gopan.krishnan@okstate.edu

^b School of Chemical Engineering, Oklahoma State University, Stillwater, OK 74078, USA.

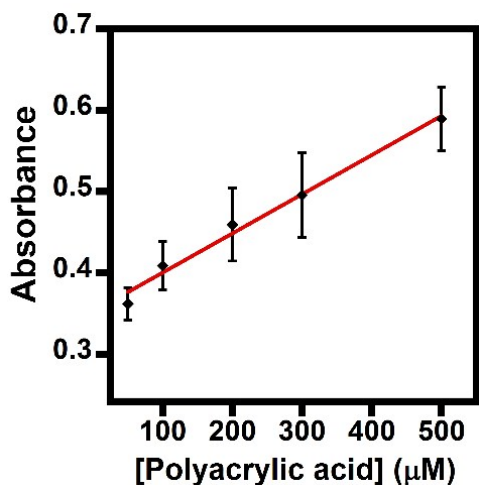


Fig. S1 Calibration plot of standard poly(acrylic acid) solution estimated by the TBO colorimetric assay.

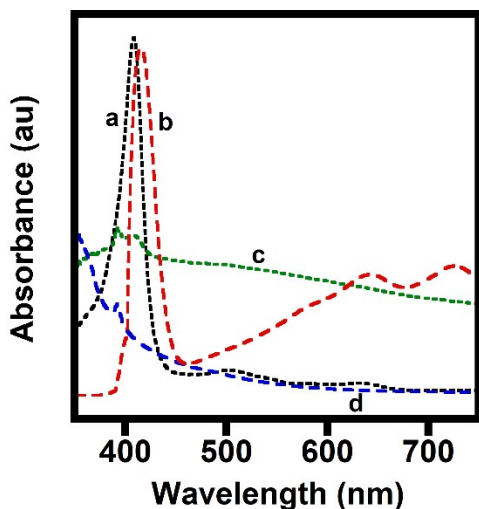


Fig. S2 UV-Vis spectra of (a) free Mb solution ($\lambda_{\max} = 409$ nm) and (b) ABTS oxidation product ($\lambda_{\max} = 415$ nm) catalyzed by Mb-MNPs_{1mg}. The spectra of (c) Mb-MNPs_{1mg} conjugate and (d) free MNPs_{1mg} in PBS solutions show no interference with the ABTS product peak identification.