

## *Supporting Information*

### ***N,N*-dimethylaminoethyl methacrylate based core shell microgels loaded with silver nanoparticles for catalysis**

Muhammad Khizar Hyat <sup>a</sup>, Prashun Ghosh Roy <sup>b</sup>, Muhammad Azam<sup>a</sup>, Shuiqin Zhou <sup>b</sup>, Ahmad Irfan <sup>c</sup>, Nayab Batool Rizvi<sup>a</sup>, Robina Begum <sup>a,\*</sup>, Zahoor H. Farooqi <sup>a\*</sup>

<sup>a</sup> *School of Chemistry, University of the Punjab, New Campus, Lahore 54590, Pakistan*

<sup>b</sup> *Department of Chemistry of College of Staten Island, The City University of New York, Staten Island, New York 10314, USA*

<sup>c</sup> *Department of chemistry, College of Science, King Khalid University, P.O. Box 9004, Abha 61413, Saudi Arabia*

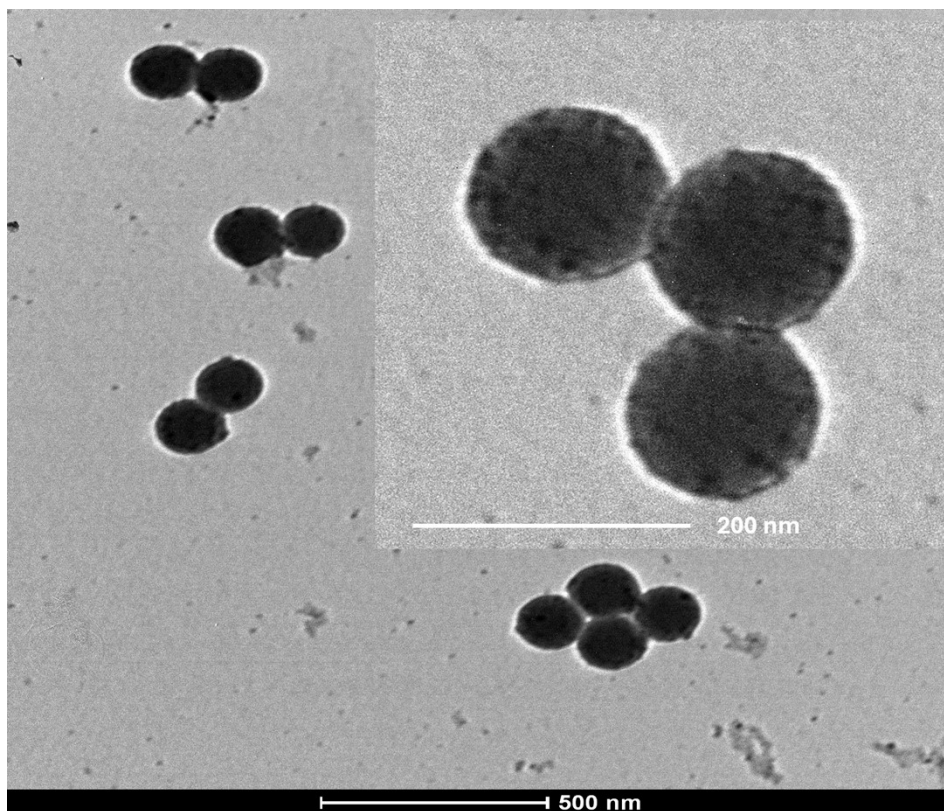
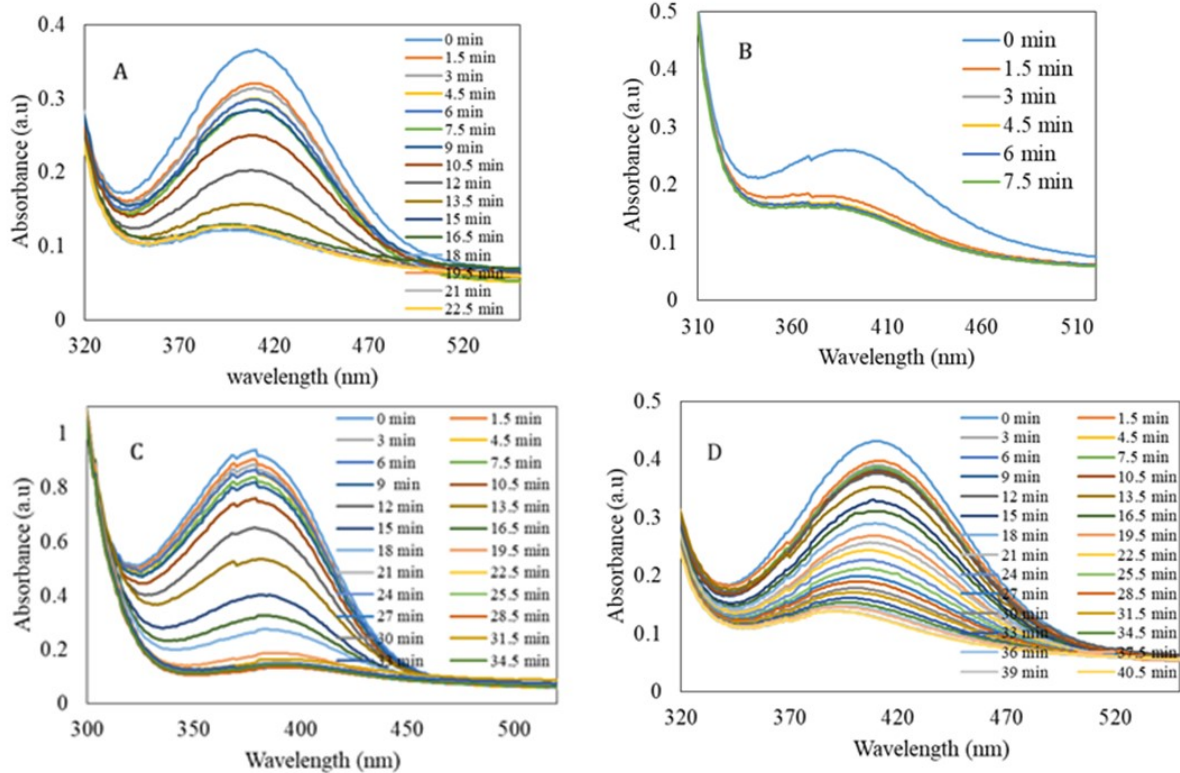


Fig. S1. TEM images of Ag-p(sty)@p(NIPMAM-DMAEMA) hybrid microgels.

---

\* Corresponding Authors: [robina.hons@pu.edu.pk](mailto:robina.hons@pu.edu.pk), [robina.chem@pu.edu.pk](mailto:robina.chem@pu.edu.pk) (R. Begum), [zahoor.chem@pu.edu.pk](mailto:zahoor.chem@pu.edu.pk), [zhfarooqi@gmail.com](mailto:zhfarooqi@gmail.com) (Z. H. Farooqi)



**Fig. S2:** The catalytic reduction of 0.06 mM A) 2-nitroaniline, B) 3-nitroaniline, C) 4-nitroaniline, and D) 2-nitrophenol by 15 mM NaBH<sub>4</sub> in the presence of 0.1616 mg/mL Ag-p(sty)@p(NIPMAM-DMAEMA) at 30°C in aqueous medium.

**Table S1:** Reduction reaction of nitroarenes, substrates, products, concentration of substrates, NaBH<sub>4</sub>, catalyst and reaction completion time.

Entry	Reactant	product	Substrate concentration (mM)	NaBH <sub>4</sub> (mM)	Catalyst (mg/mL)	Reaction time (min)
1			0.06	15	0.1616	22.50
2			0.06	15	0.1616	7.50
3			0.06	15	0.1616	34.50
4			0.06	15	0.1616	40.50