Supporting Information

Porous $NiCo_2O_4$ Nanorods as Efficient Catalysts for UV-Assisted Reduction of p-Nitrophenol

Nanditha T K[1], Mahi Varza Nataraajan[1], Shreepooja Bhat[1], Arun Kumar Thilipan[2], Madhusudhan Alle[3], Raghavendra K. G[1], Gurumurthy S C[1*]

[1]*Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India.*

[2]*Dr. Bansi Dhar Institute, Gurugram-122015, India*

[3]*Department of Chemistry, The University of Memphis, Memphis, TN 38152, USA*

Corresponding Author: gurumurthy.sc@manipal.edu

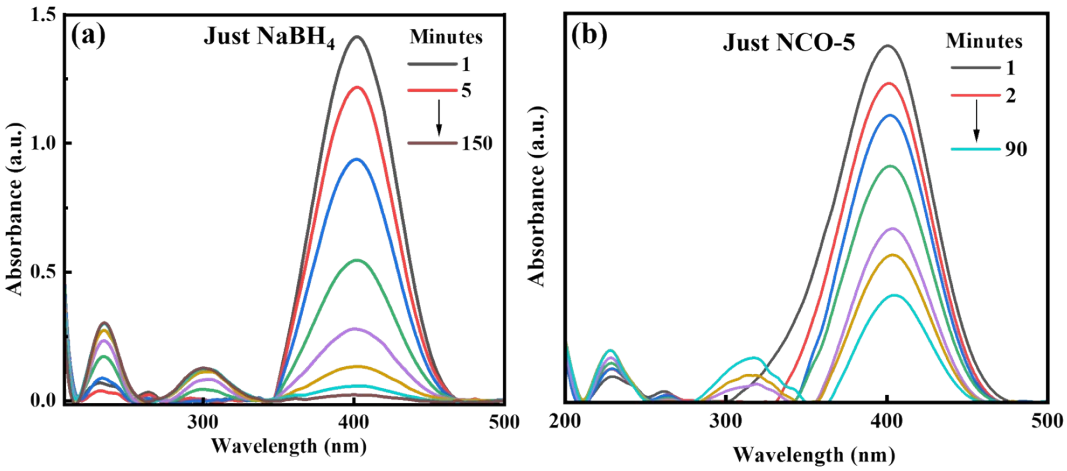

Fig. S1. UV-Vis spectral evolution of PNP reduction in the presence of (a) just $NaBH_4$ and (b) just NCO-5 NPs under UV illumination

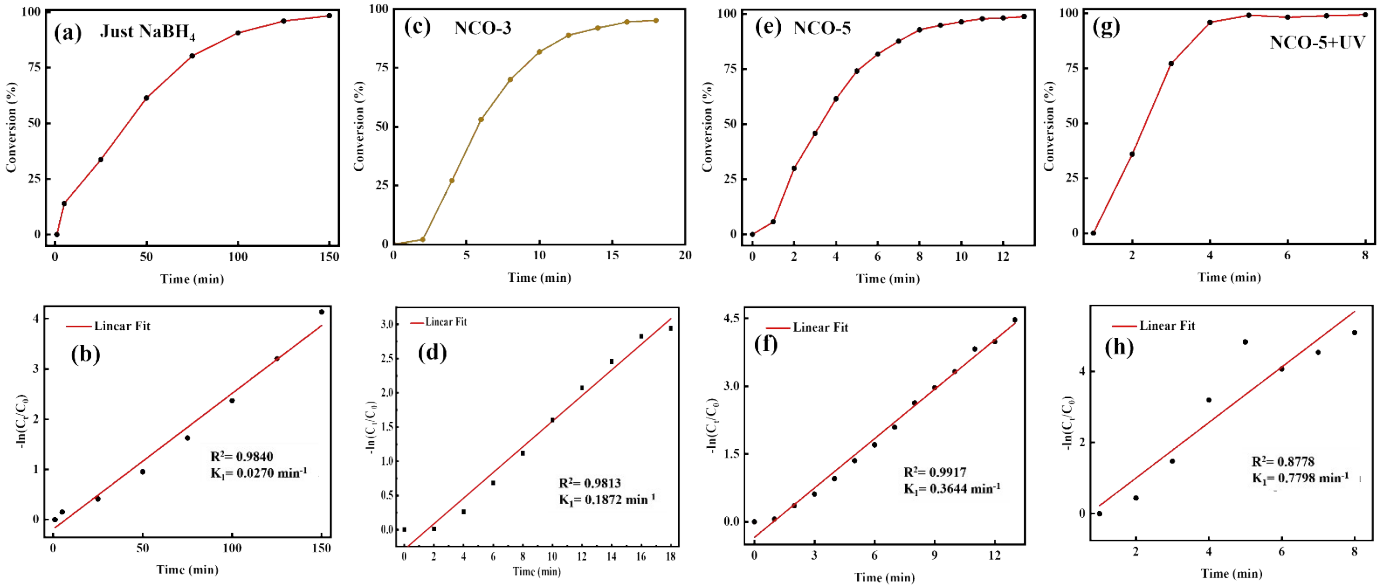

Fig. S2. Conversion percentage plot under various conditions and $\ln(C_t/C_0)$ vs time graph for conversion in presence of $NaBH_4$ and (a,b) no catalyst, (c,d) NCO-3, (e,f) NCO-5 and (g,h) NCO-5 under UV illumination.

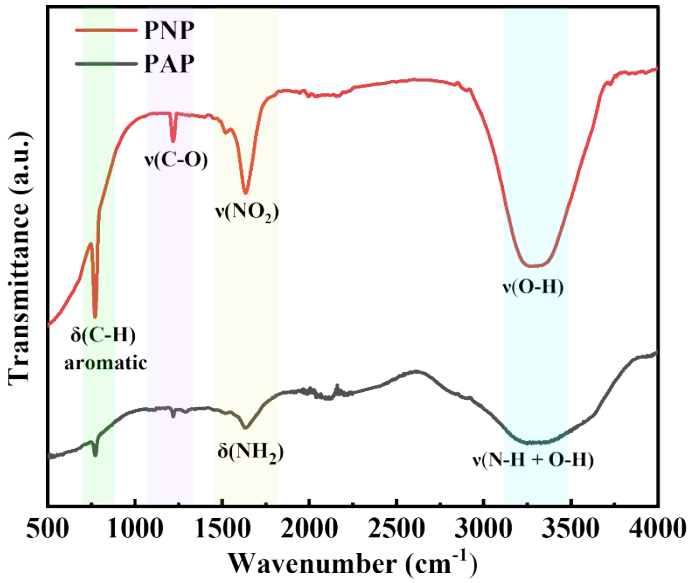

Fig. S3. FTIR of catalytic reaction solution before and after reduction of PNP.

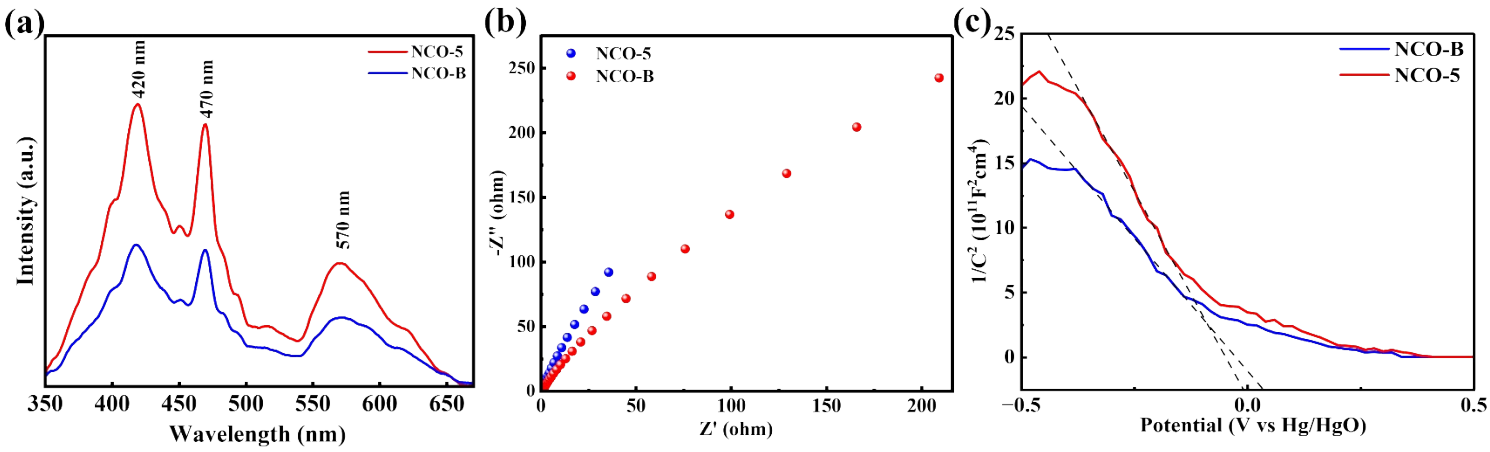

Fig. S4. (a) Photoluminescence spectra of NCO-B and NCO-5 samples; (b) electrochemical impedance spectroscopy (EIS) Nyquist plots of NCO-B and NCO-5 catalysts; (c) Mott-Schottky plots of NCO-B and NCO-5 samples recorded in 6 M KOH electrolyte.

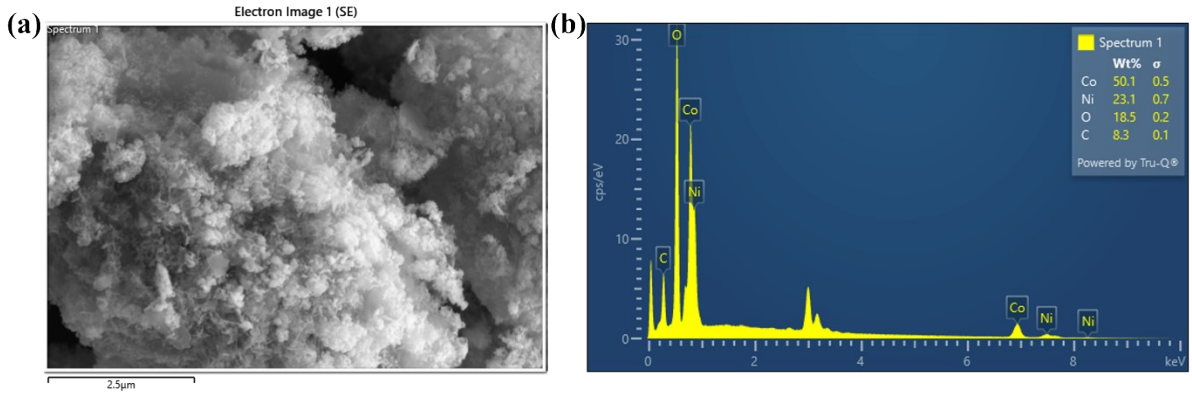

Fig. S5. FESEM electron image and corresponding EDS spectra of the recycled NCO-5 catalyst after 5 cycles.