Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Decoration of Pd and Pt Nanoparticles on Carbon Nitride (C_3N_4) Surface for Nitro Compounds Reduction and Hydrogen Evolution Reaction

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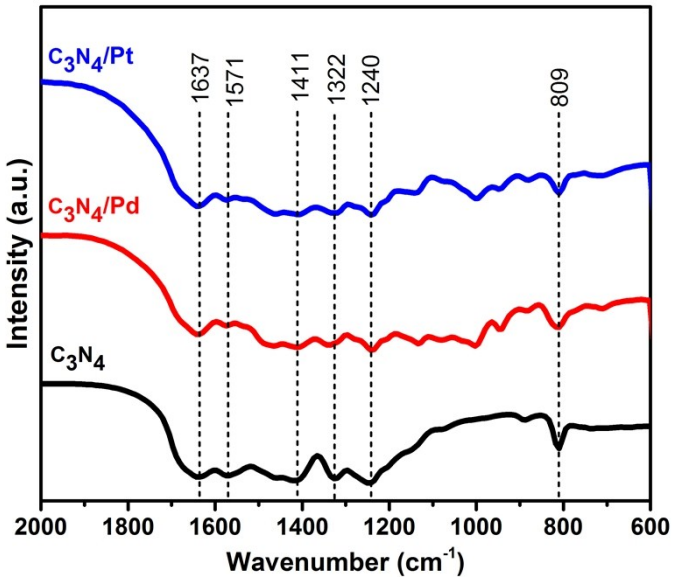

Figure S1: FTIR spectra of Pd and Pt loaded C_3N_4 surface

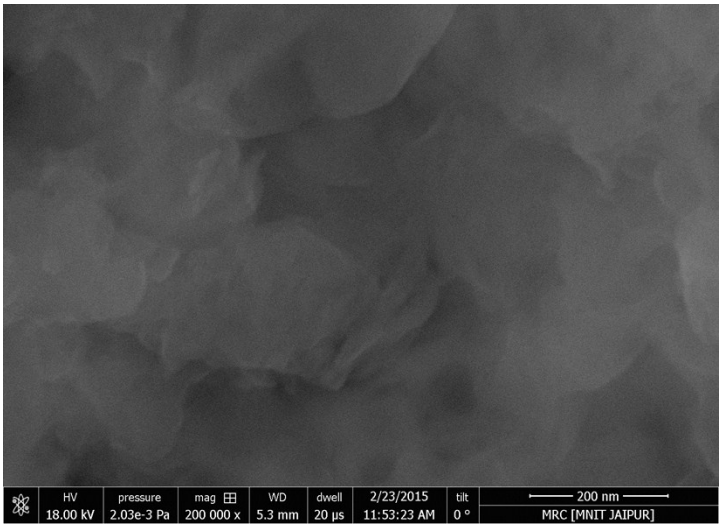

Figure S2: FESEM image of exfoliated C_3N_4 sheet after 5 h sonication

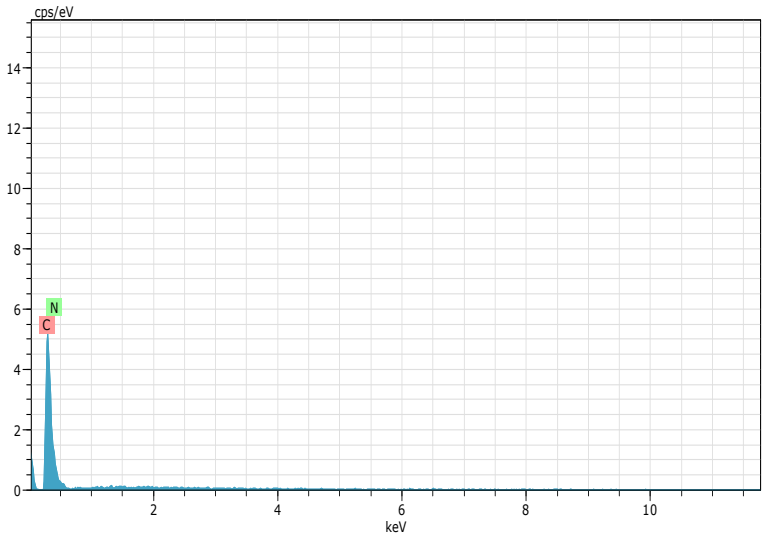

Figure S3: EDS analysis of C_3N_4

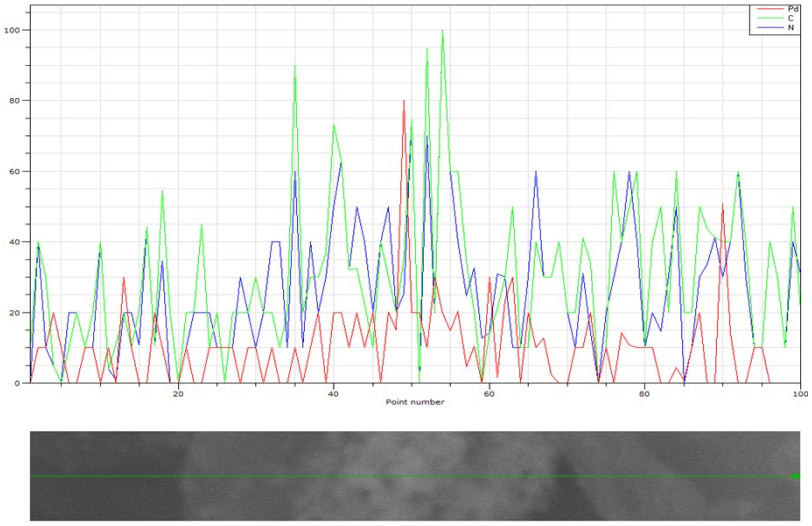

Figure S4: Line mapping of C_3N_4/Pd with FESEM image

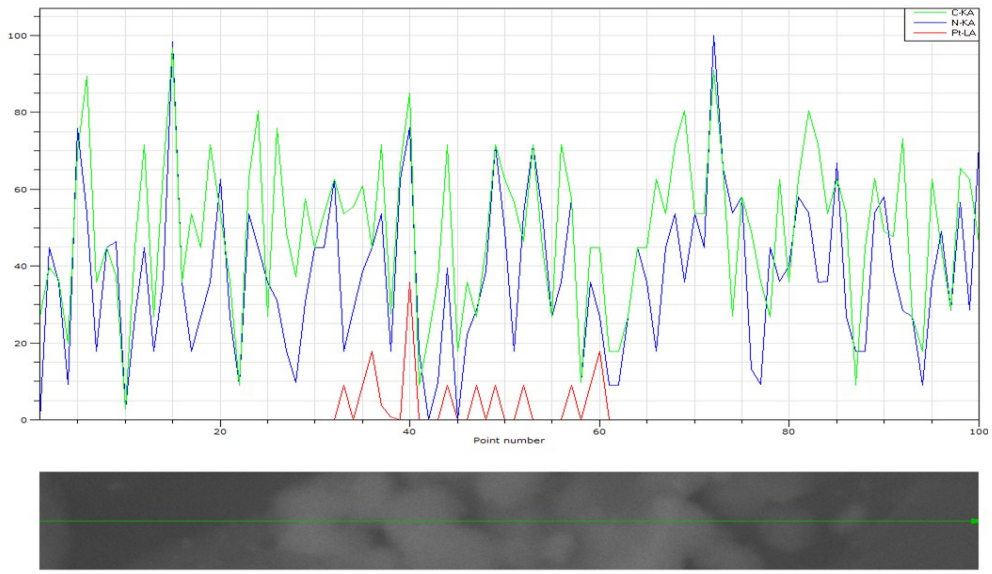

Figure S5: Line mapping of C_3N_4/Pt with FESEM image

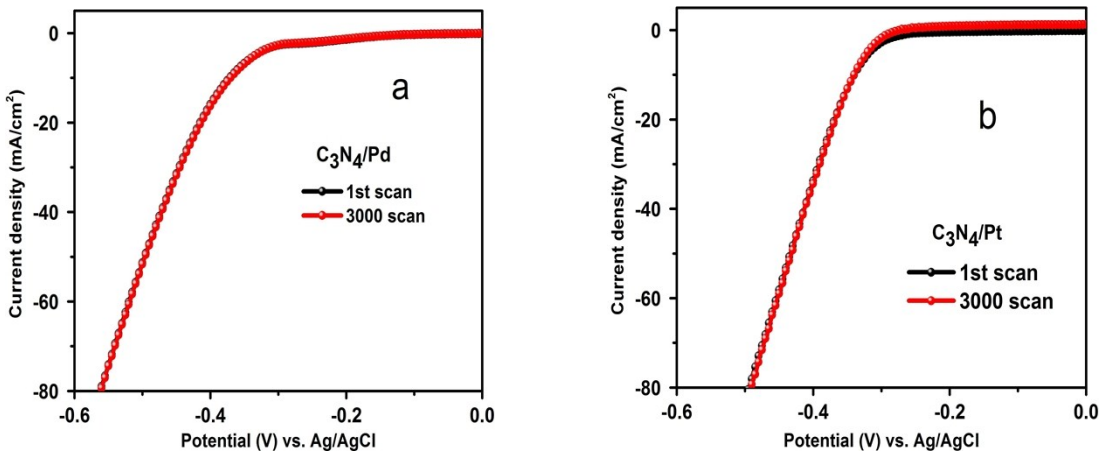

Figure S6: Comparative polarization curve of (a) C_3N_4/Pd and (b) C_3N_4/Pt initial run and after 3000 cycle.

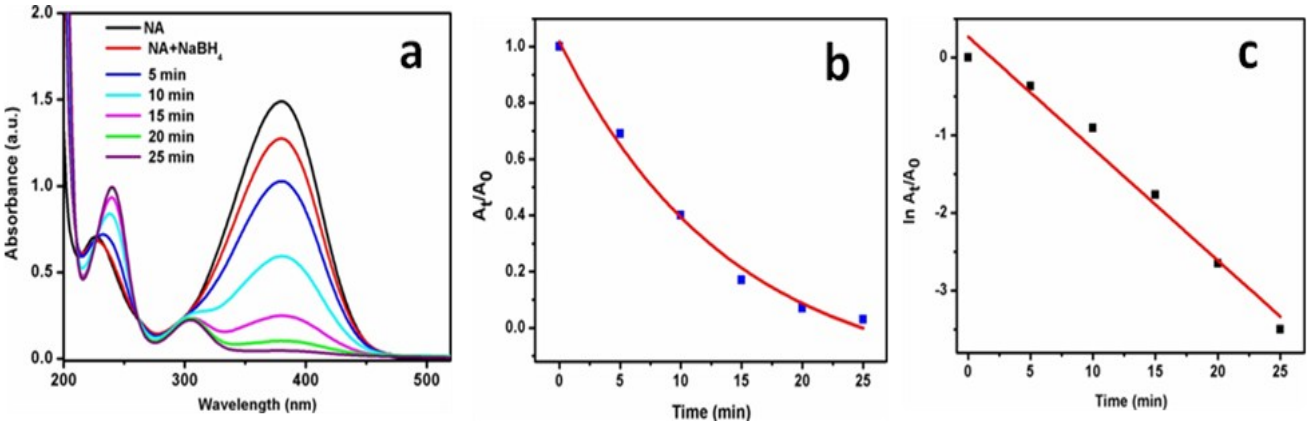

Figure S7. UV-vis spectra of (a) Reduction of 4-nitroaniline (4-NA) in presence of C_3N_4/Pt (b) A_t/A_0 vs. time (min) plot (c) ln (A_t/A_0) vs. time (min) plot. Conditions: [NA] = 10^{-4} M and amount of catalyst = 1.0 mg.

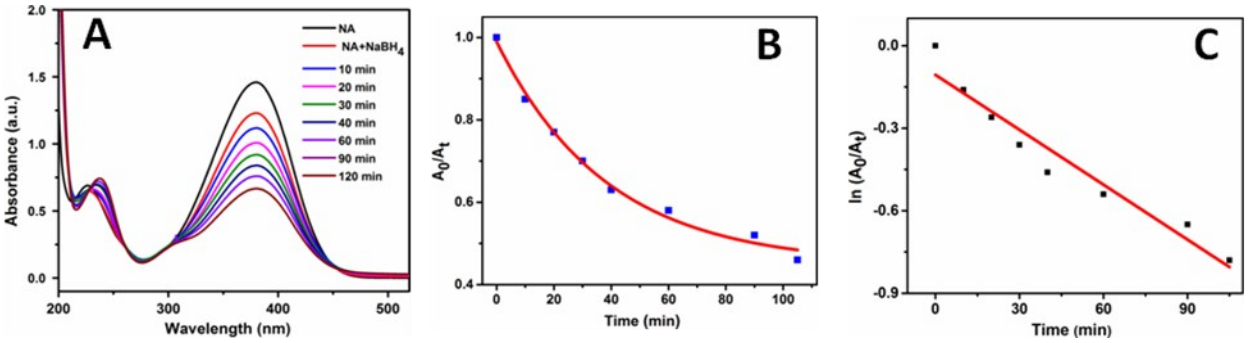

Figure S8. UV-vis spectra of 4-nitroaniline (4-NA) reduction in presence of C_3N_4 (a) conversion of NA (b) A_t/A_0 vs. time (min) plot, and (c) ln (A_t/A_0) vs. time (min) plot

Conditions: [NA] = 10^{-4} M and amount of catalyst = 1.0 mg

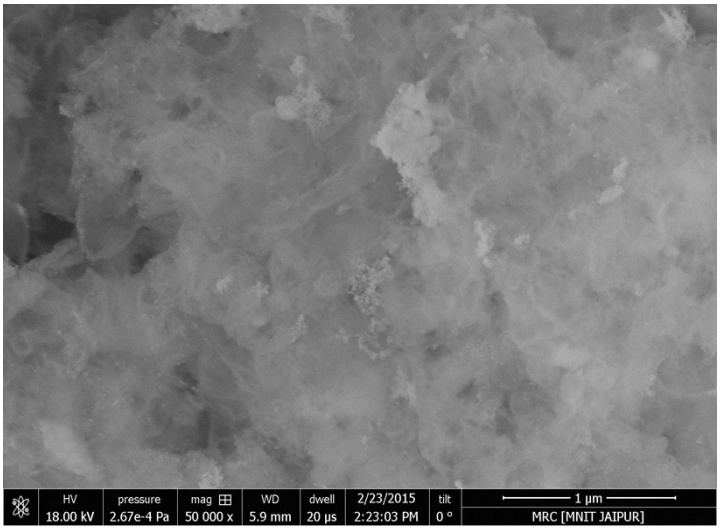

Figure S9: FESEM of reused C_3N_4/Pd after 4th cycle

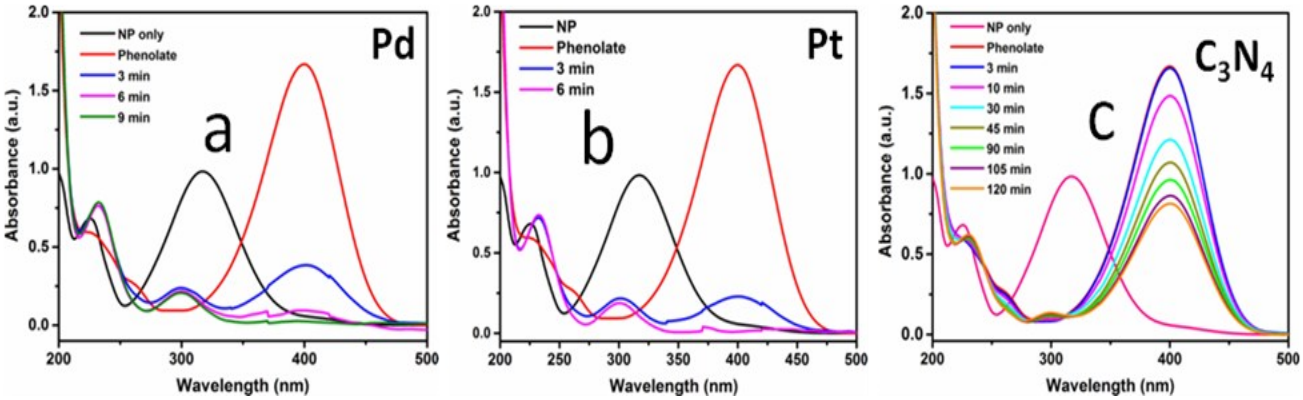

Figure S10. Reduction of 4-nitrophenol using (a) C_3N_4/Pd (b) C_3N_4/Pt (c) C_3N_4 catalyst

Conditions: [NP] = 10^{-4} M and amount of catalyst = 1.0 mg

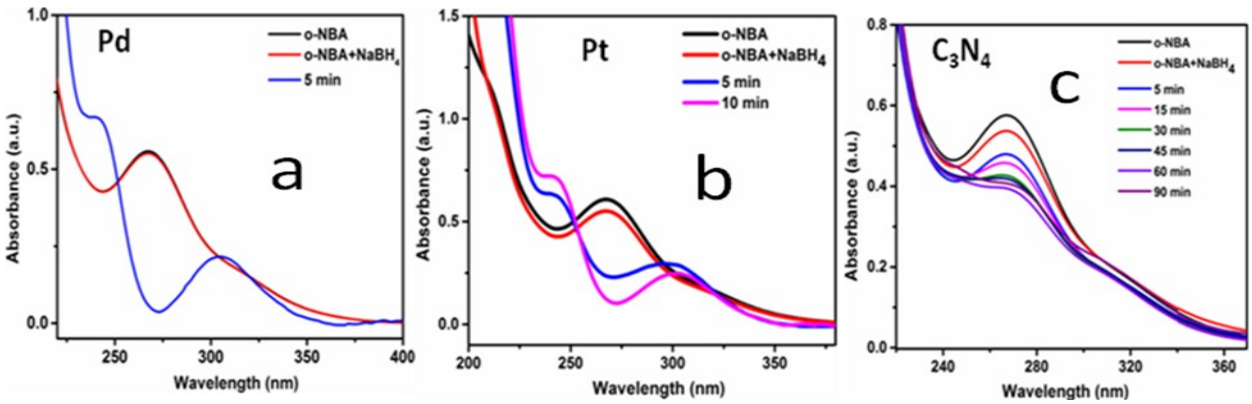

Figure S11. Reduction of ortho-nitrobenzoic acid (a) C_3N_4/Pd (b) C_3N_4/Pt (c) C_3N_4

Conditions: [NBA] = 10^{-4} M and amount of catalyst = 1.0 mg