Stabilization of Various Zero-Valent Metal Nanoparticles on a Superabsorbent Polymer for the Removal of Dyes, Nitrophenol, and Pathogenic Bacteria

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Figure S1: Chemical structure of acrylic acid (a), polyacrylic acid (b) and sodium polyacrylate (c).

Figure S2: UV-vis. spectra of MO in the presence of WB loaded with Cu catalyst (a), Ag (b), and various kinetics parameters studied obtained from $C_t/C_0$ (c) and pseudo first order kinetics of WB loaded with Ni, Cu and Ag NPs (d).
Experimental condition: 0.05 mM of 2.5 mL of MO + 1 mM of 0.5 mL of NaBH$_4$ solution and 20 mg of each catalyst.
Figure S3: UV-vis spectra of CR in the presence NaBH₄ and absence of catalyst (a), WB loaded with Cu catalyst (b), Ag (c), various kinetics parameters studied obtained from Cₜ/C₀ (d) WB loaded with Ni, Cu and Ag NPs and bare (d).

Experimental condition: 0.05 mM of 2.5 mL of CR + 1 mM of 0.5 mL of NaBH₄ solution and 20 mg of each catalyst.

Figure S4: structure of MB and leuco MB.