

Phenol and Cr(VI) degradation with Mn ion doped ZnO under Visible light photocatalysis

Supporting Information:

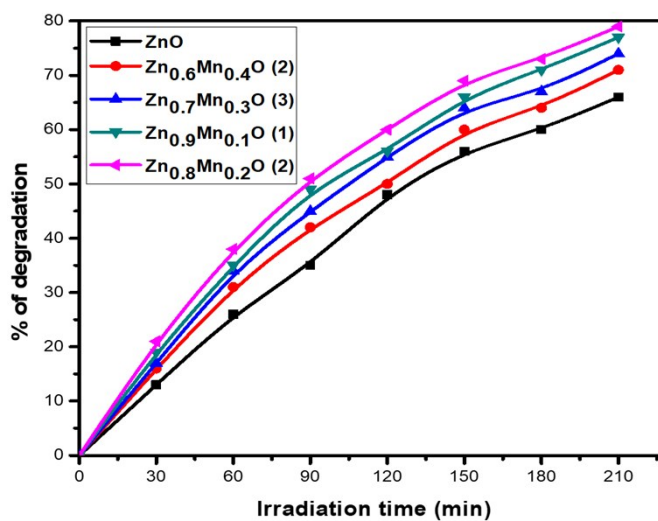


Figure S1: Degradation percentages of phenol in aqueous solution. Mn percentage vary from 0.1% to 0.4%, Irradiation Time=210 min, catalyst amount=40mg/L, phenol concentration=20 ppm.

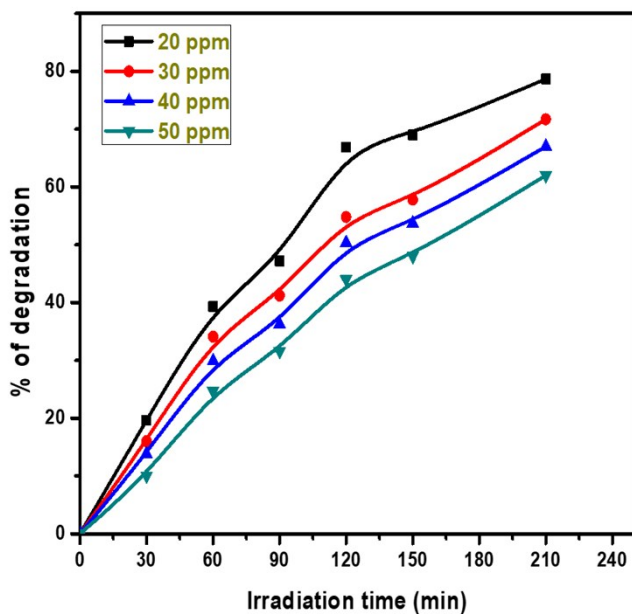


Figure S2: The degradation percentages of various phenol concentration. Irradiation time = 210 min, catalyst amount = 40 mg/L.

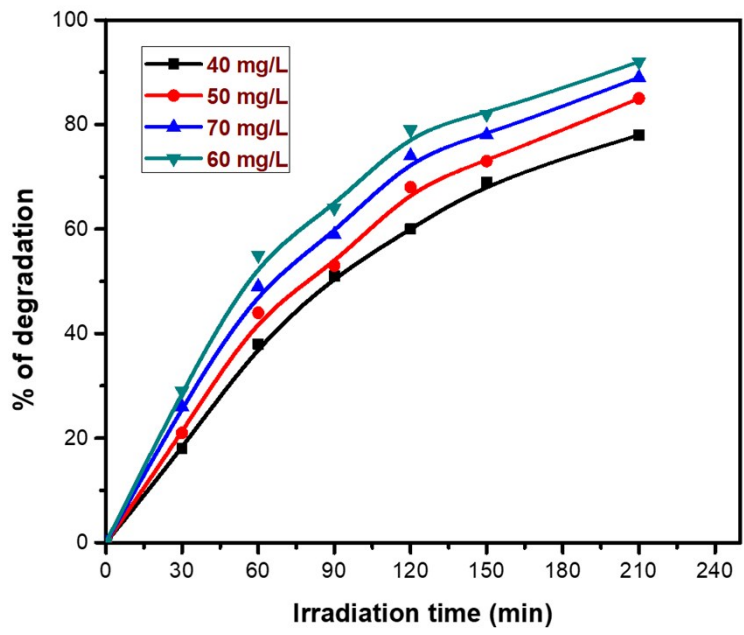


Figure S3: The degradation percentages of different amounts of catalysts. Irradiation time = 210 min, phenol concentration = 30 ppm.

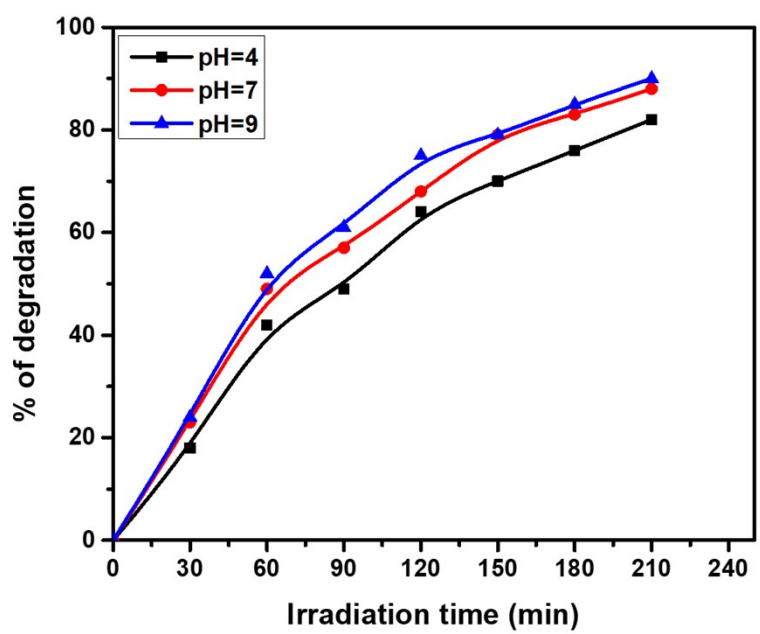


Figure S4: The degradation percentages of various pH values. Irradiation time = 210 min, catalyst amount = 40 mg/L, phenol concentration = 30 ppm.

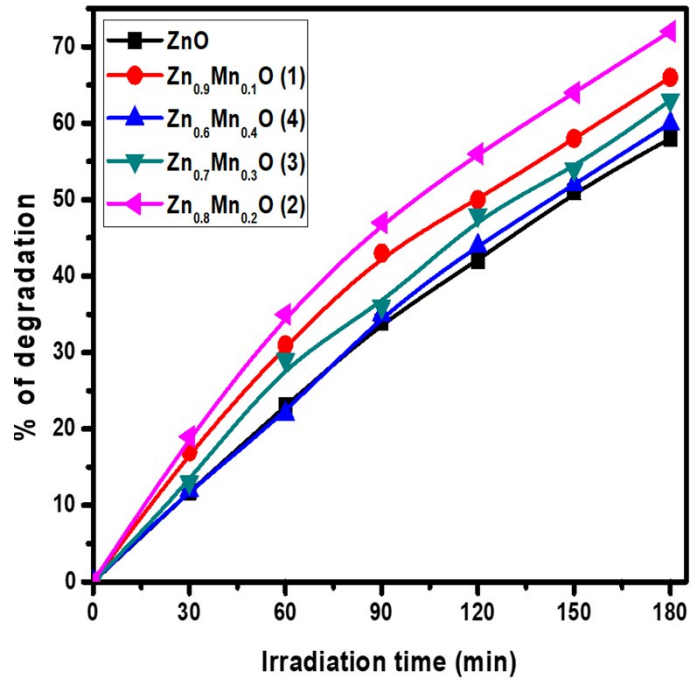


Figure S5: The degradation percentages of pure ZnO and 1-4 nanomaterials. catalyst amount=40 mg/L, Cr(VI) concentration= 30 ppm, Irradiation time=180 min.

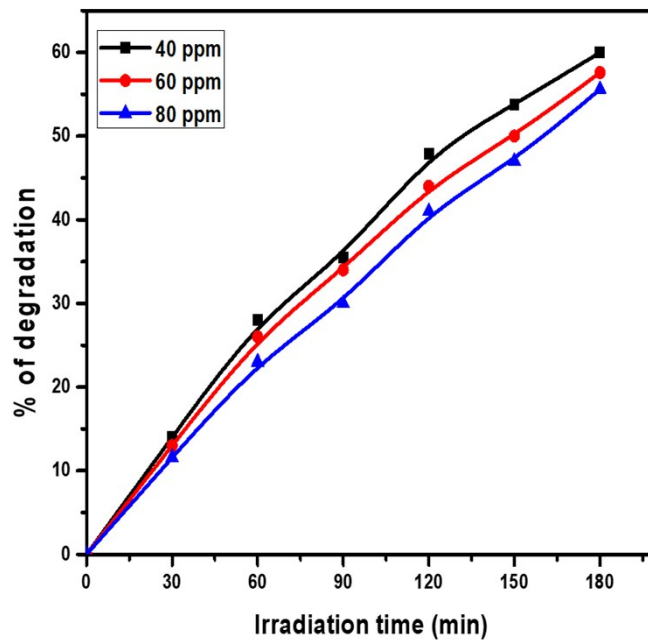


Figure S6: The percentages of degradation with different concentrations of Cr(VI). Irradiation time = 180 min. catalyst amount = 40 mg/L.

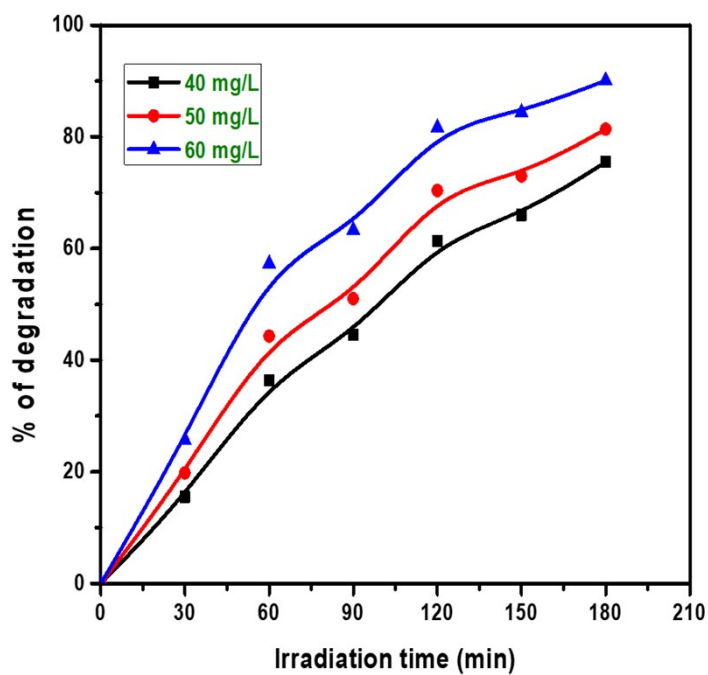


Figure S7: The degradation percentages with varying the catalyst amount. Irradiation time = 180 min. concentration of Cr(VI) = 40 ppm.

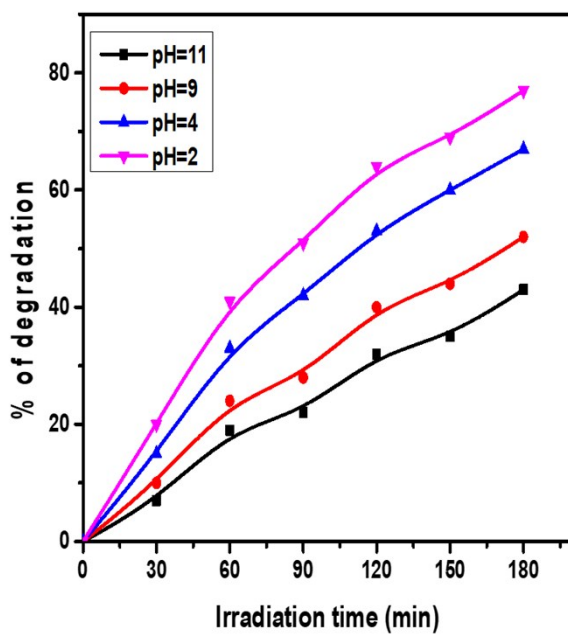


Figure S8: The degradation percentages of effect of pH on Cr(VI). Irradiation time = 180 minutes, catalyst amount = 40 mg/L, concentration of Cr(VI) = 40 ppm.

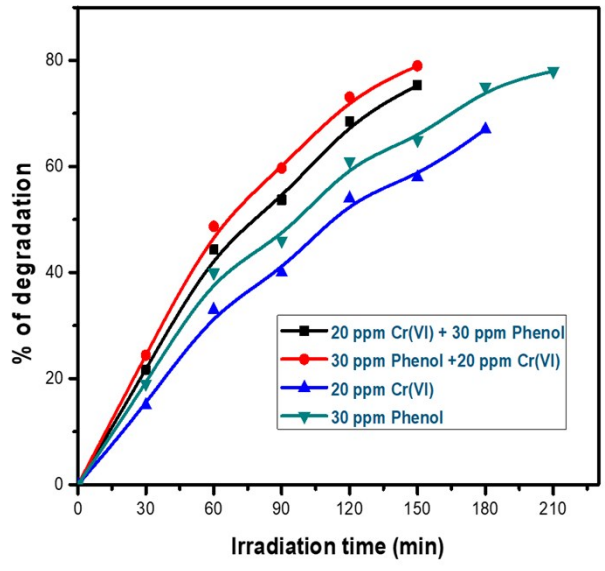


Figure S9: The degradation plots for individual and simultaneous oxidation of phenol and reduction of Cr(VI) in presence of ZnO: Mn (0.2%) photocatalyst.