

Catalytic Removal of Alizarin Red using Chromium Manganese Oxide Nanorods: Degradation and Kinetic Studies

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Supplementary Data

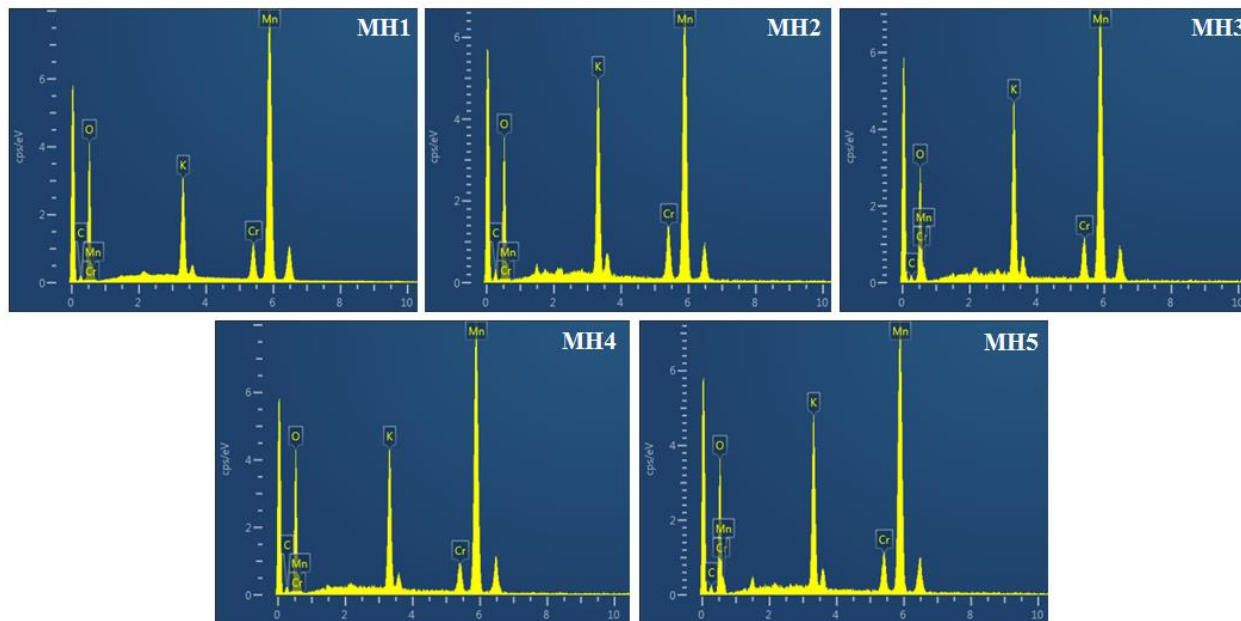


Figure S1: Energy dispersive X-ray (EDX) Spectra of Chromium Doped Manganese Oxide Nanomaterials (MH1-MH5)

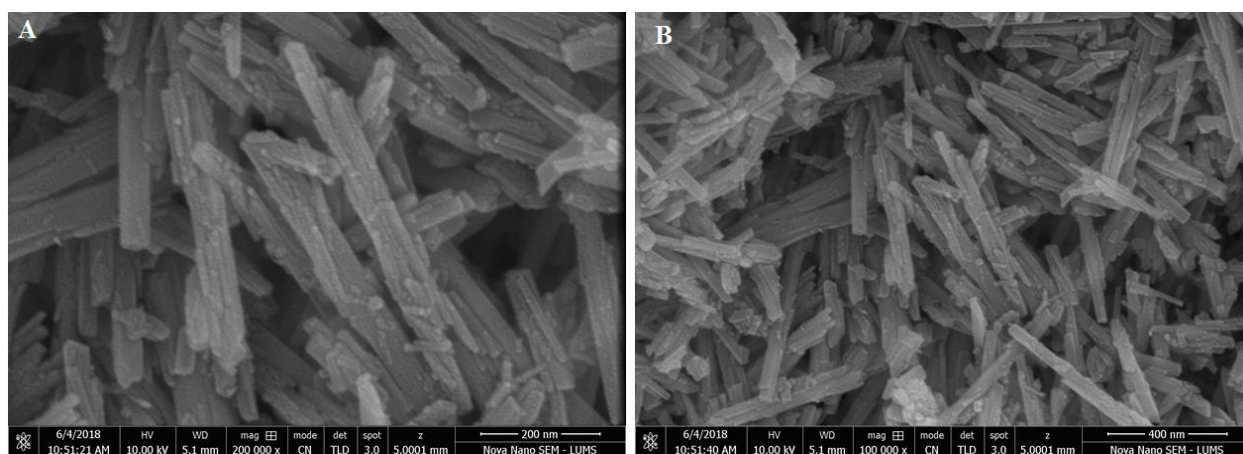


Figure S2(a): SEM Images of MH1; [A(200nm) and B(400nm)]

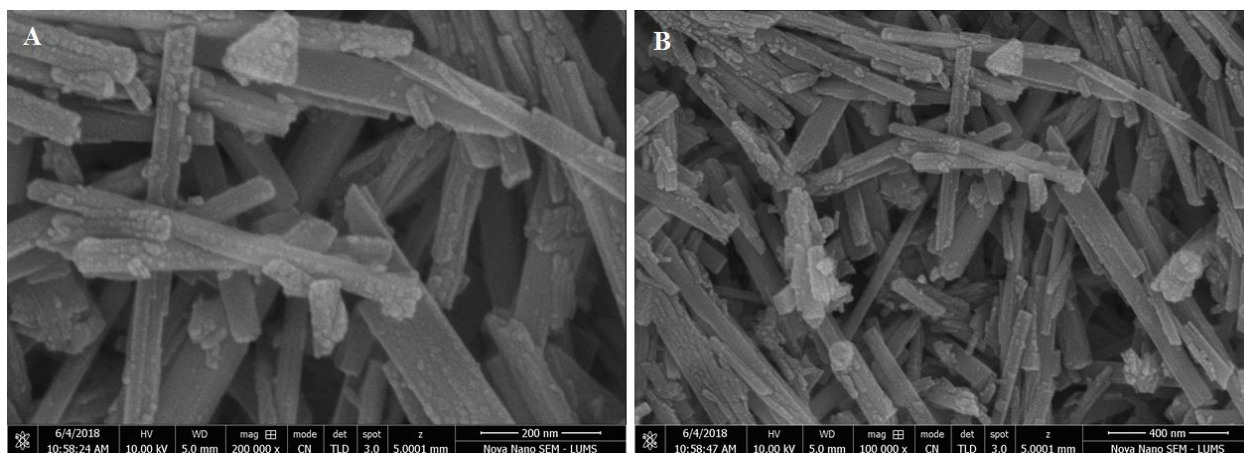


Figure S2(b): SEM Images of MH2; [A(200nm) and B(400nm)]

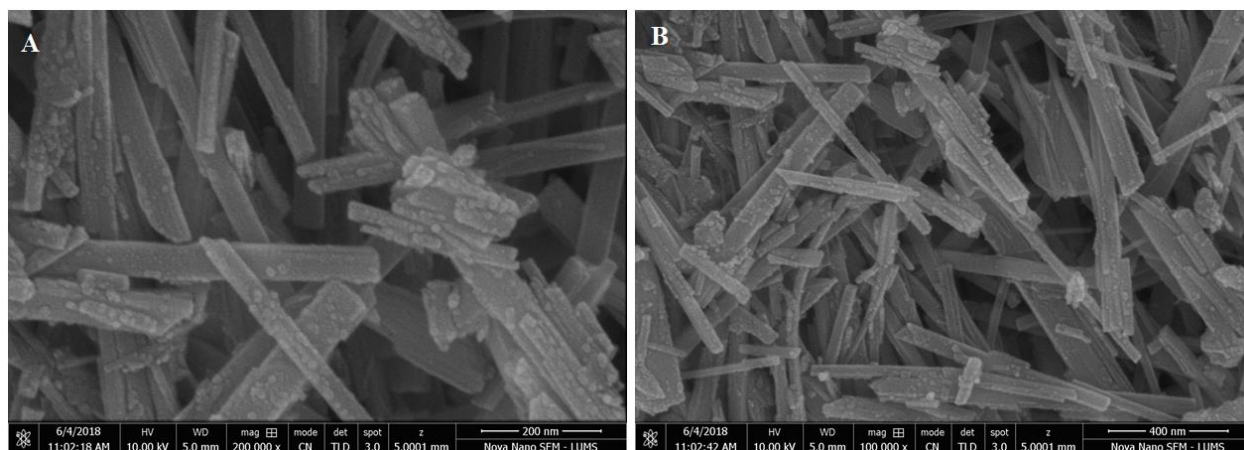


Figure S2(c): SEM Images of MH3; [A(200nm) and B(400nm)]

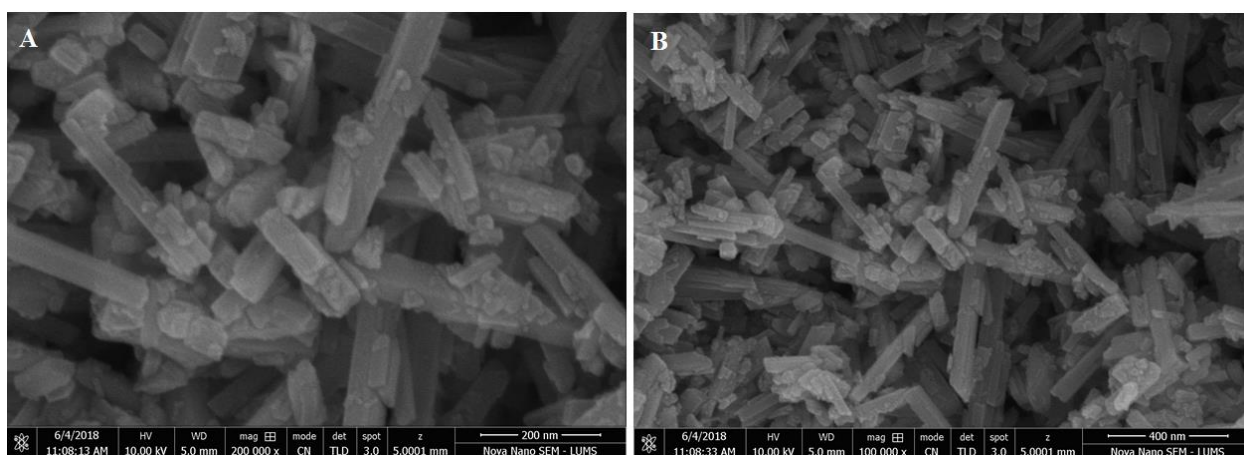


Figure S2(d): SEM Images of MH4; [A(200nm) and B(400nm)]

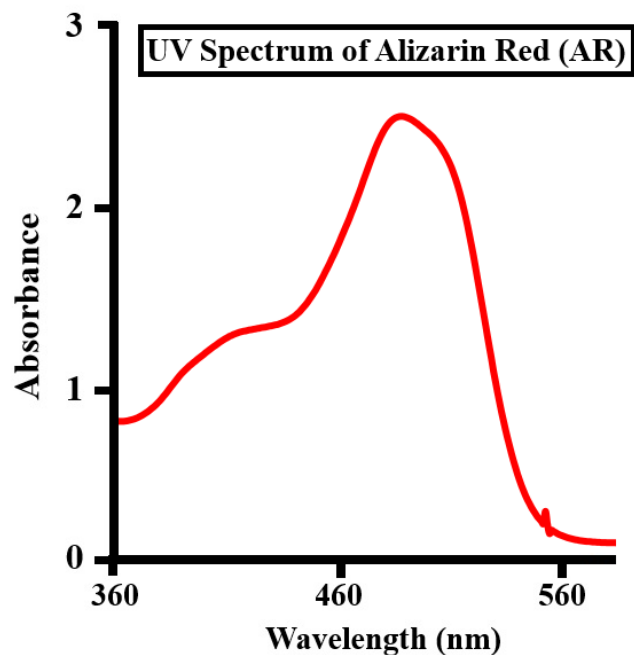


Figure S3(a): UV Absorption Spectrum of AR Dye; [No change was observed in UV spectrum taken before and after 180 min of AR degradation activity without UV light irradiation and catalyst]

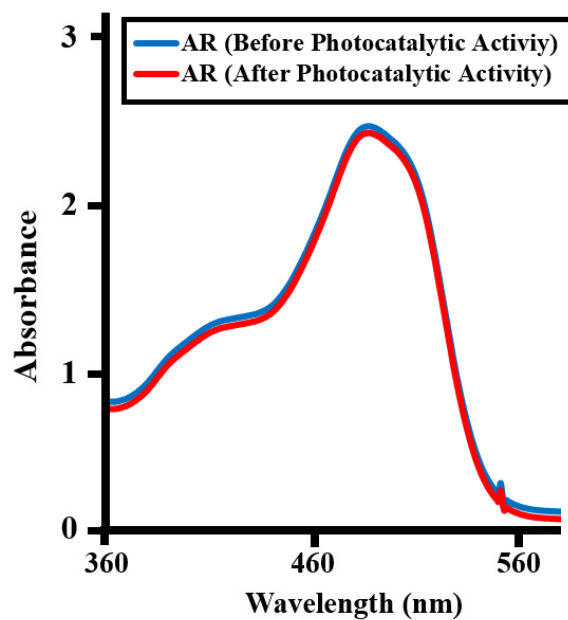


Figure S3(b): UV Absorption Spectra of AR Dye; [before starting Photocatalytic AR degradation and after 180 min of AR degradation activity with UV light irradiation without catalyst]

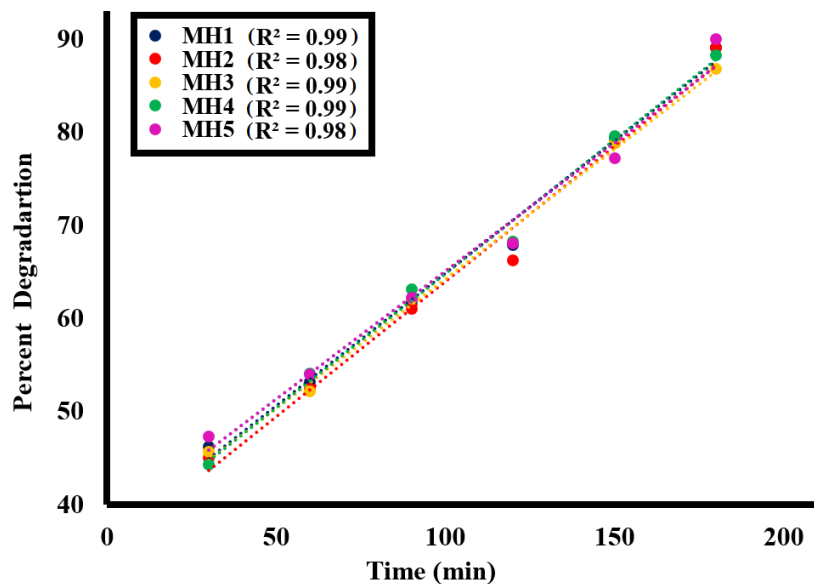


Figure S4: Percent AR Dye Degradation at Different Time Intervals (30, 60, 90, 120, 150 and 180 min) by Photocatalysts (MH1-MH5)

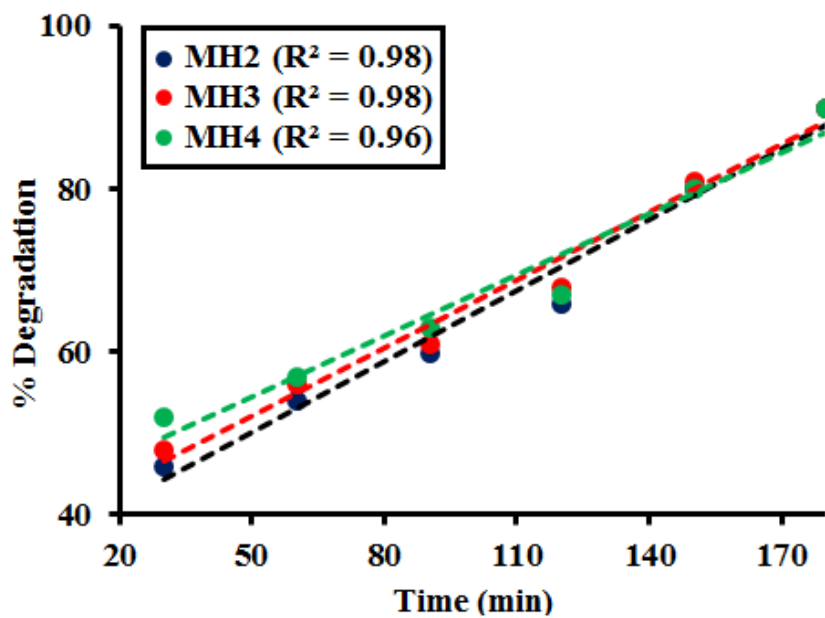


Fig S5: Correlation between Time and %Degradation of Alizarin Red (AR) Dye (200ppm) by 0.02g of Nanomaterials MH2-MH4

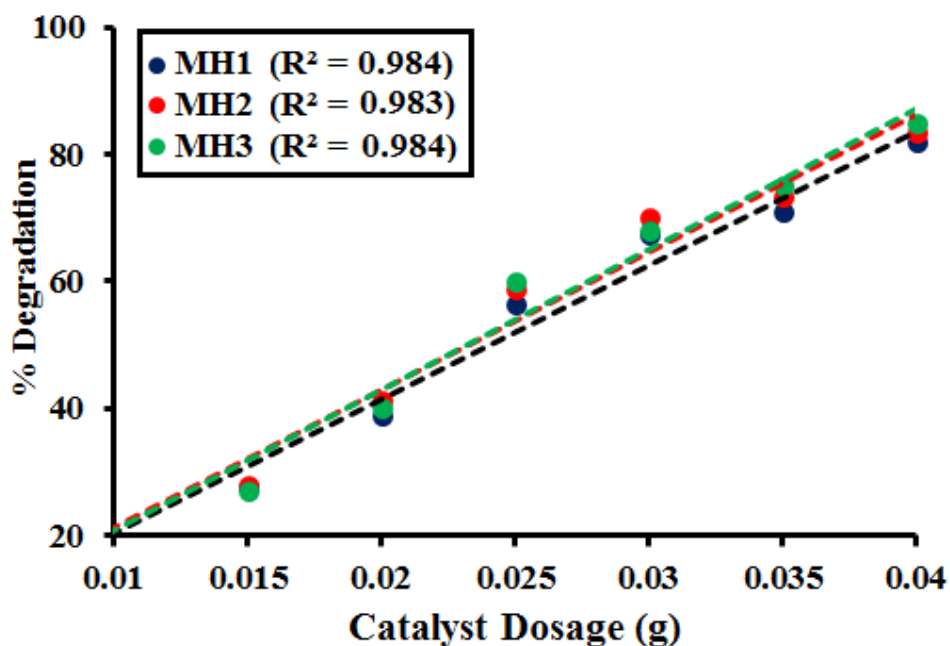


Figure S6: Correlation between %Degradation of Alizarin Red (AR) Dye (200 ppm) and Different Catalyst Doses of **MH1-MH3** after 60min of Photocatalytic Activity

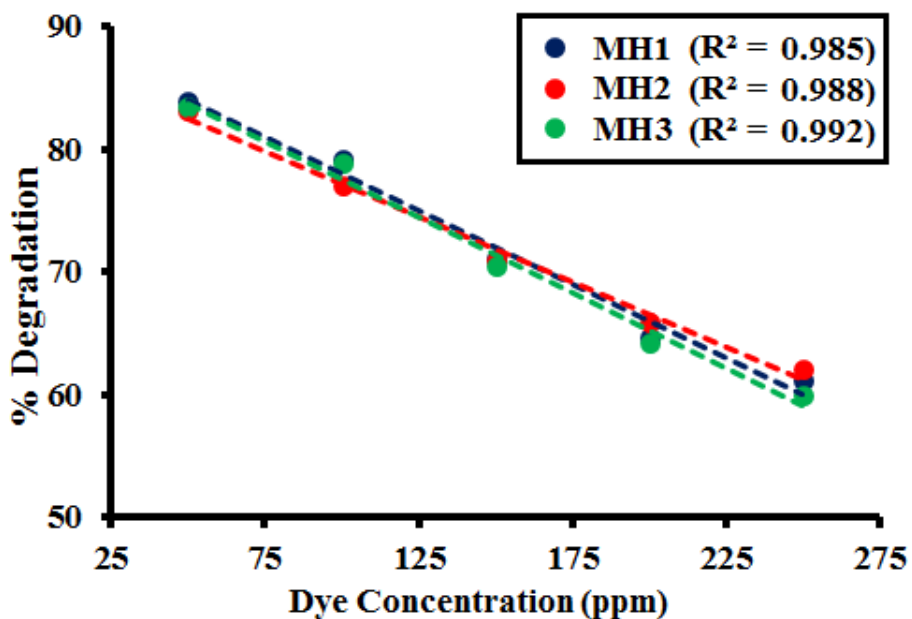


Figure S7: Correlation between %Degradation of Alizarin Red (AR) Dye by 0.02g of Nanomaterials **MH1-MH3** at Different Dye Concentrations (50-250ppm)

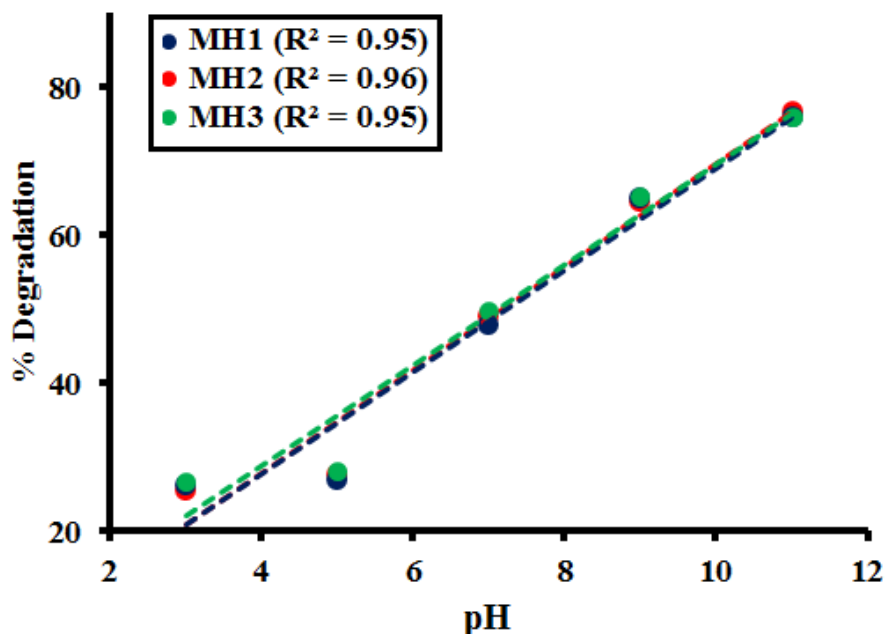


Figure S8: Correlation between % Degradation of Alizarin Red (AR) Dye (200ppm) by 0.02g of Nanomaterials **MH1-MH3** and Different Time Intervals

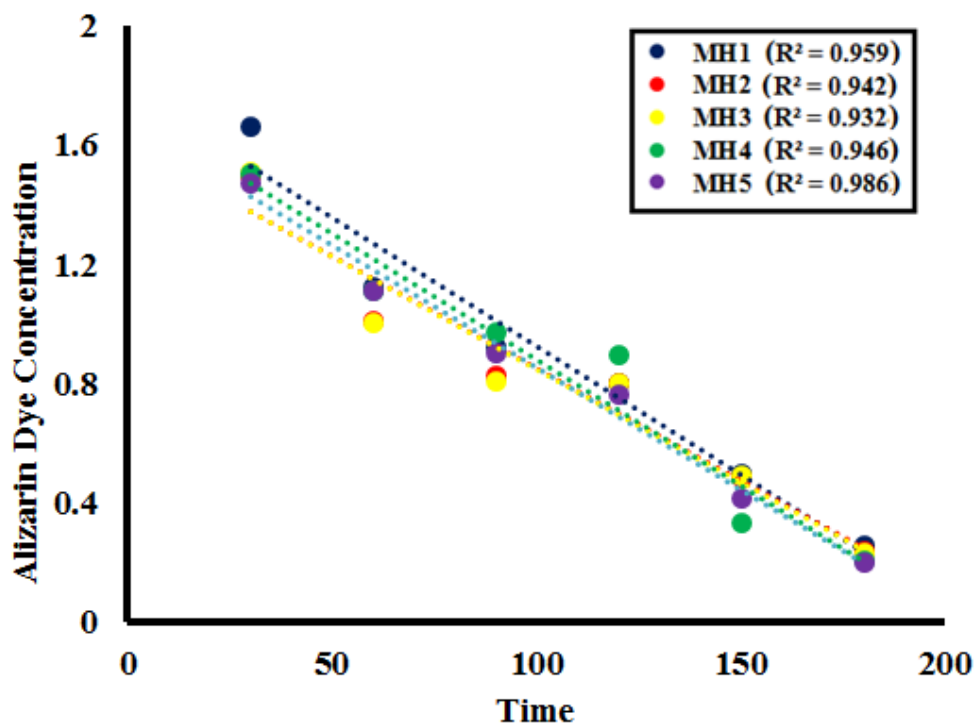


Figure S9: Correlation between Alizarin Red (AR) Dye Concentration of Photocatalytic Activity by 0.02g of Nanomaterials (**MH1-MH5**) at Different Time Intervals

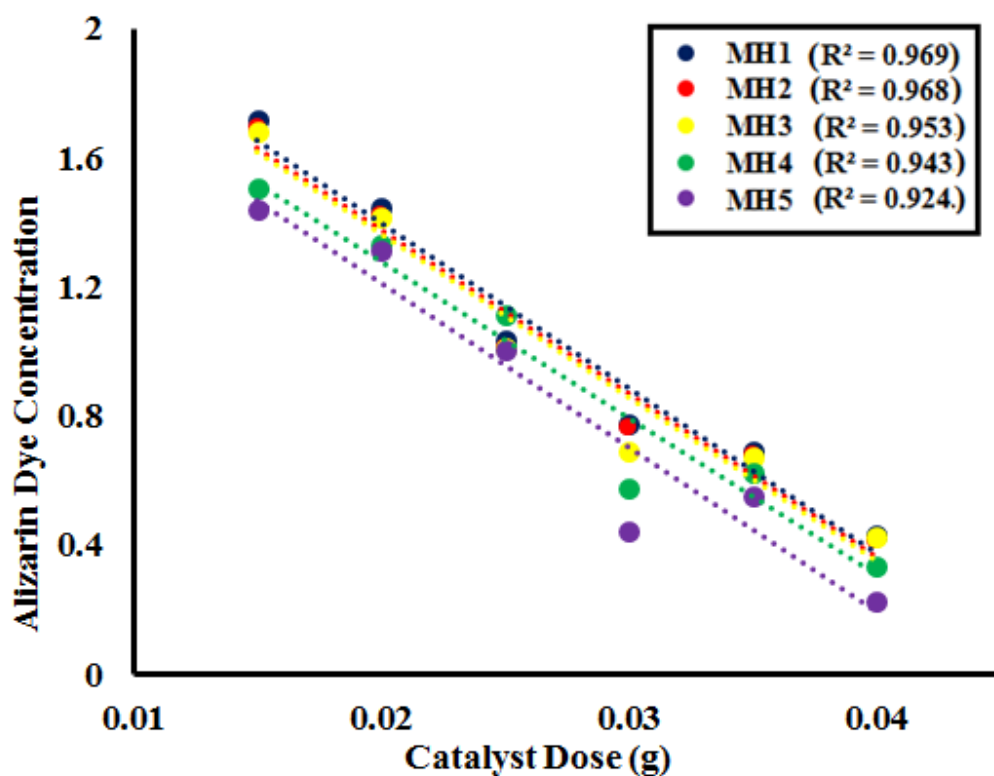


Figure S10: Correlation between Alizarin Red (AR) Dye Concentration after 60min of Photocatalytic Activity by Nanomaterials (MH1-MH5) at Different Catalyst Doses

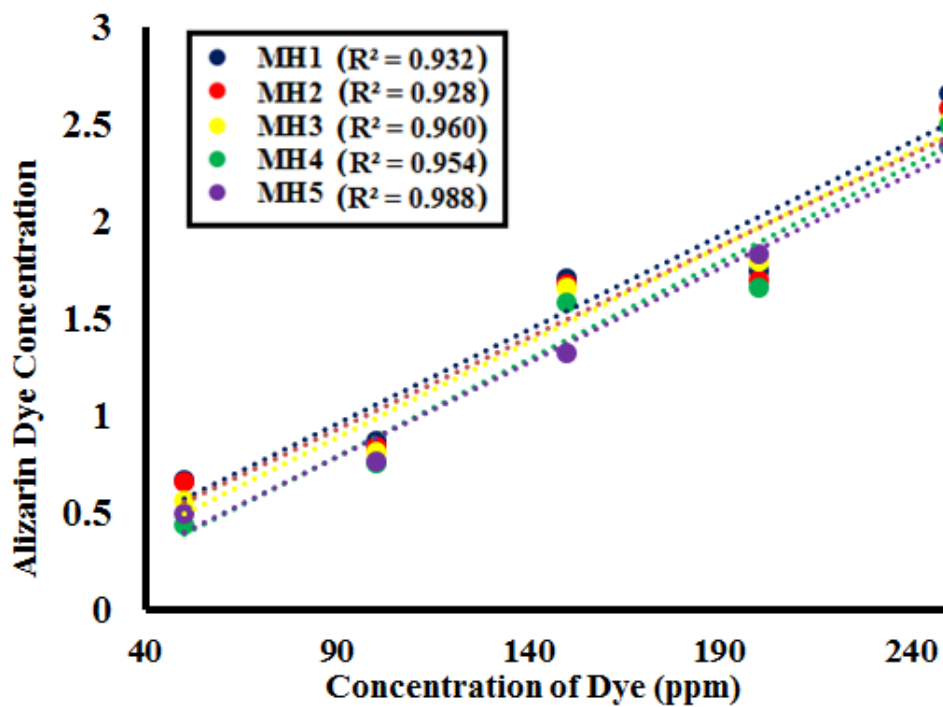


Figure S11: Correlation between Alizarin Red (AR) Dye Concentration after 60min of Photocatalytic Activity by Nanomaterials (MH1-MH5) at Different Dye Concentrations

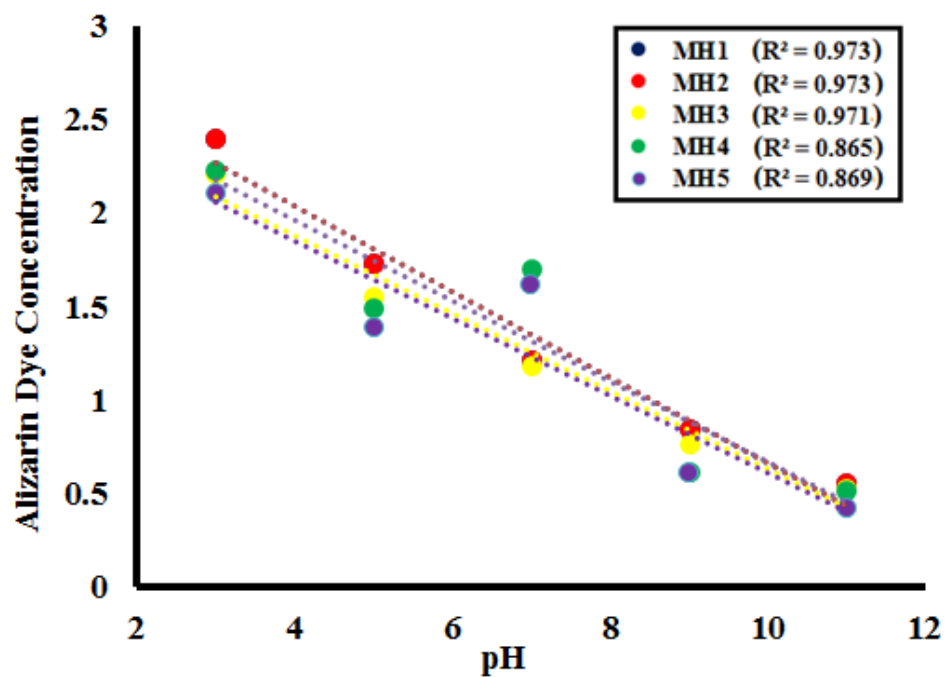


Figure S12: Correlation between Alizarin Red (AR) Dye Concentration after 60min of Photocatalytic Activity by Nanomaterials (MH1-MH5) at Different pH