

Optimization of photocatalytic degradation of Acid Blue 113 and Acid Red 88 textile dyes in a UV-C/TiO₂ suspension system: Application of Response Surface Methodology (RSM)

Soroosh Mortazavian¹, Ali Saber^{2,*} and David E. James²

¹ Department of Mechanical Engineering, University of Nevada, Las Vegas, Las Vegas, NV 89154, USA; mortazav@unlv.nevada.edu

² Department of Civil and Environmental Engineering and Construction, University of Nevada, Las Vegas, Las Vegas, NV 89154, USA; dave.james@unlv.edu

* Correspondence: sabersic@unlv.nevada.edu; Tel.: (+1 702-285-2836)

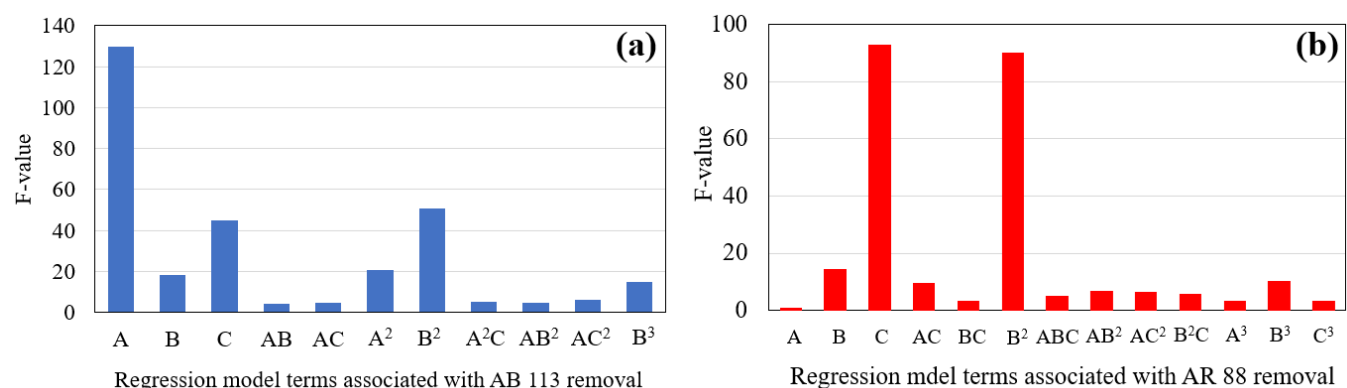


Figure S1. Computed F-values for significant ($p < 0.05$) regression model terms associated with photocatalytic degradation of (a) AB 113 (a), and (b) AR 88 [A: pH, B: TiO₂ dose (g/L), and C: Initial dye concentration: (mg/L)].

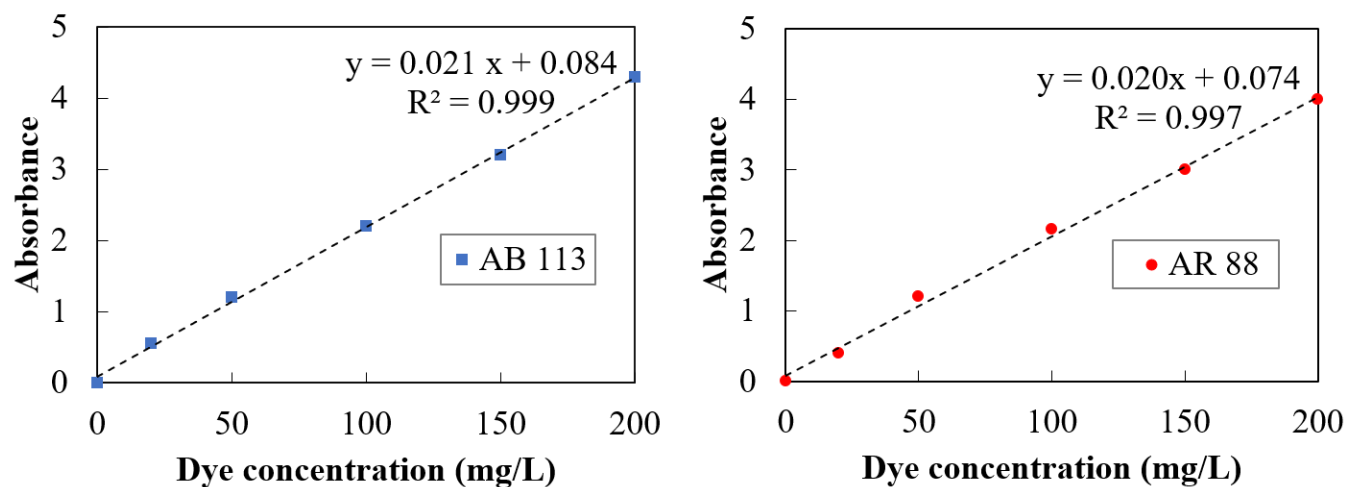


Figure S2. Absorbance versus dye concentrations graphs for (a) AB 113, and (b) AR 88, showing linearity of data for both dyes in the studied dye concentration between 0 mg/L to 200 mg/L.