

Supplementary Information

Plasma-liquid synthesis of MoO_x and WO₃ as potential photocatalysts

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I. Analysis of dyes solution after photocatalysis

The products of the destruction process were analyzed by gas chromatography-mass spectrometry (GC/MS) (Shimadzu GCMS QP2010 Ultra) in positive electrospray mode. Samples were extracted by organic solvents before analysis.

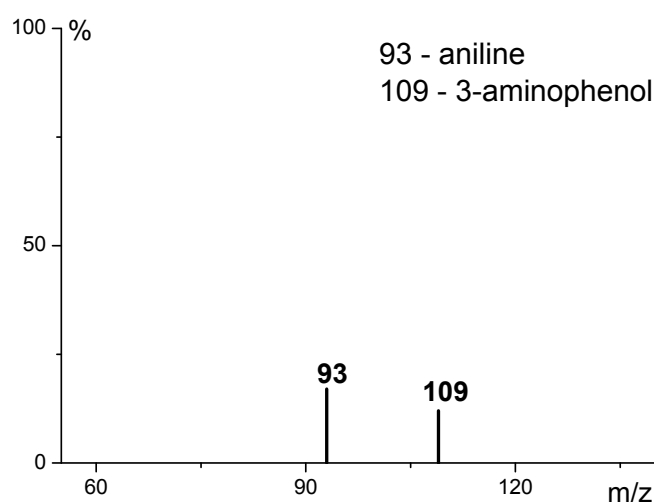


FIG. S1 Chromato-mass-spectrum of dyes solution after photocatalysis (destruction degree <100%)

Two kinetic models are analyzed and proved for all dyes adsorption. Figures S1-S2 (a-d) show the $\ln(q_e - q_t) = f(t)$ and t/q_t versus t for MoO_x and WO_3 , respectively.

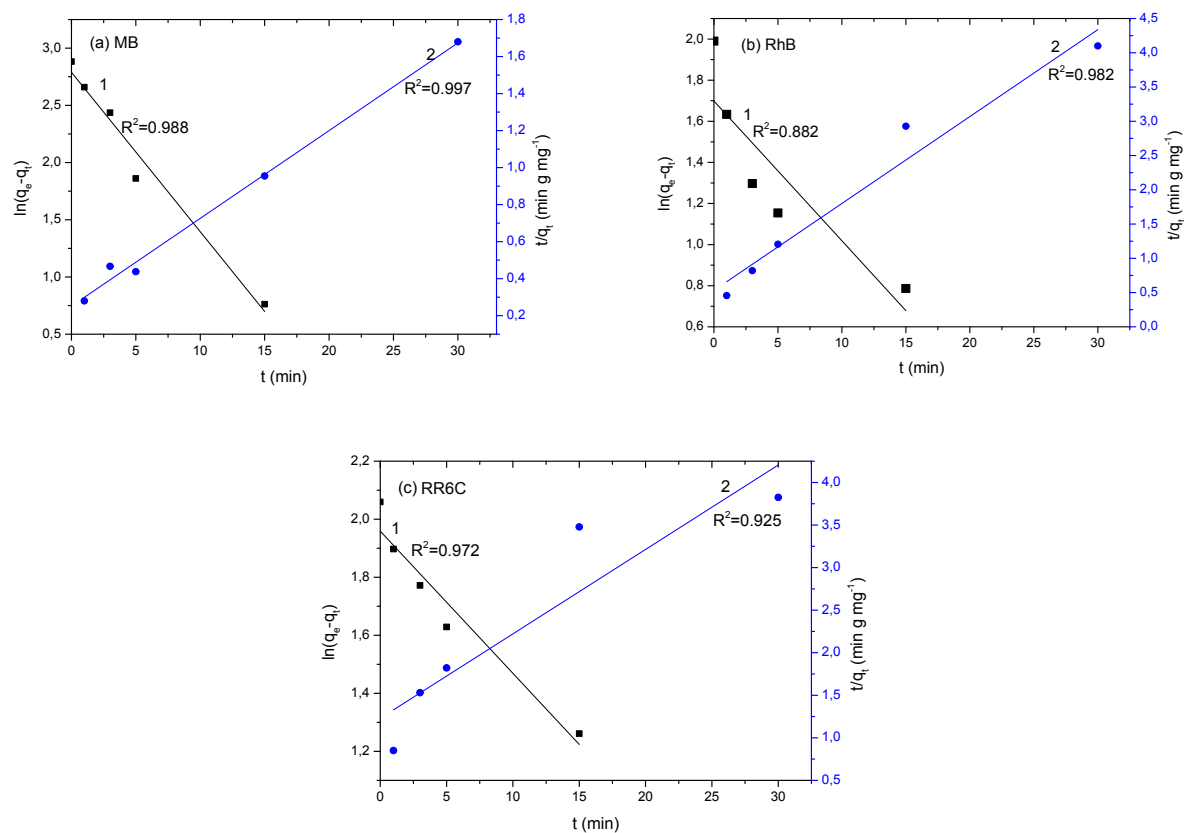


FIG. S2 The pseudo-first (1) and pseudo-second (2) order kinetic models plots for the adsorption of MB (a), RhB (b), and RR6C (c) dyes on the MoO_x

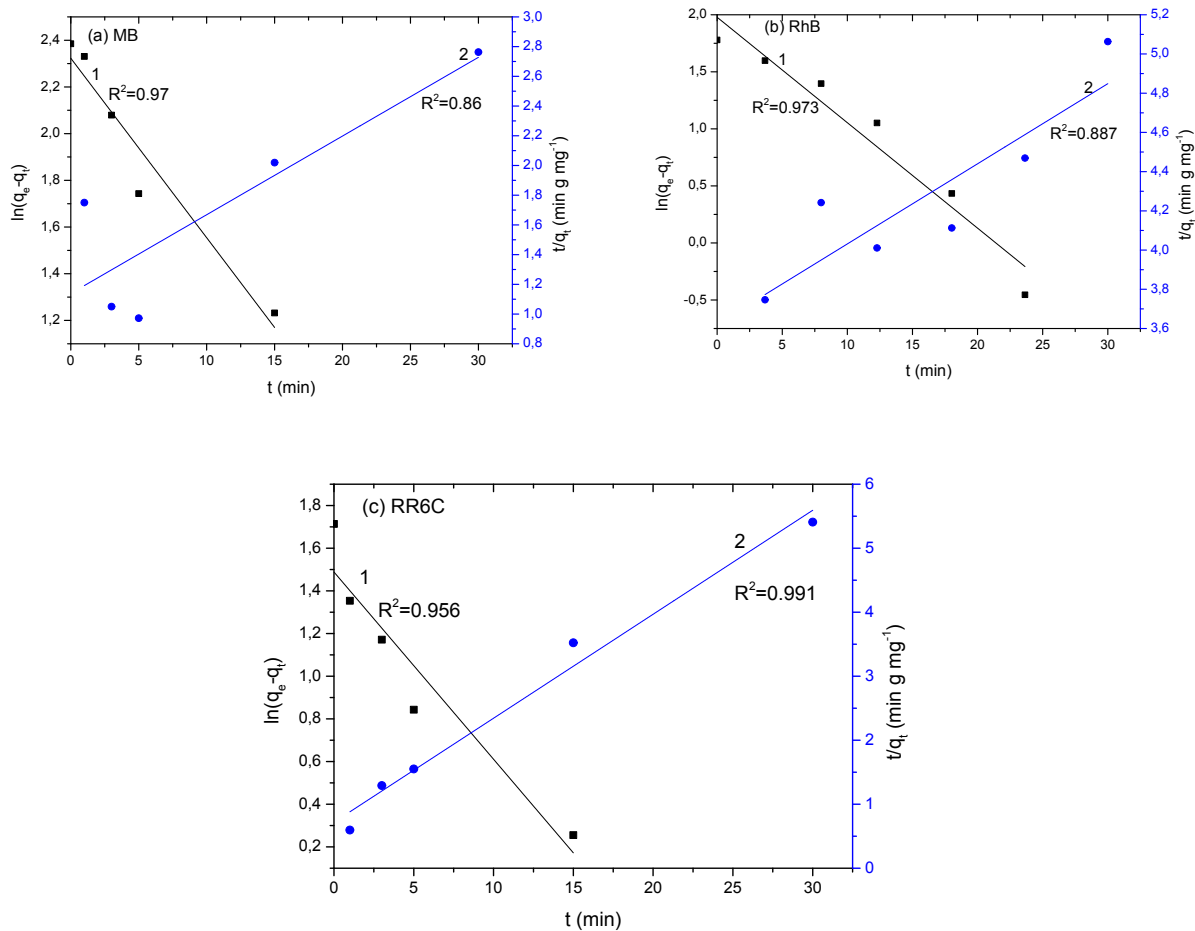


FIG. S3 The pseudo-first (1) and pseudo-second (2) order kinetic models plots for the adsorption of MB (a), RhB (b), and RR6C (c) dyes on the WO_3

Figure S4 (a-b) presents the q_t versus $t^{1/2}$ for intraparticle diffusion model.

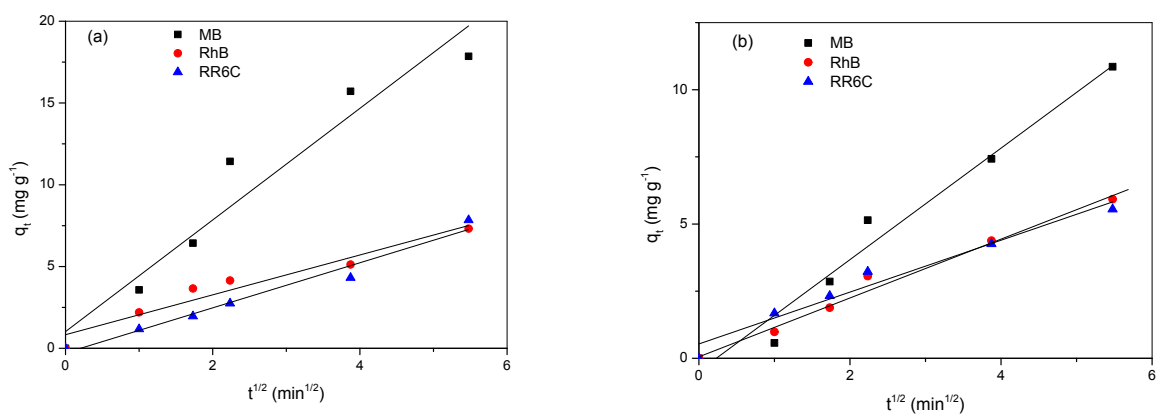


FIG. S4 Intraparticle diffusion model for adsorption of four dyes on MoO_x (a) and WO_3 (b)