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Supporting Information

Interaction Determined Sensitization Degradation of Dye Complexes by Boron Nitride under Visible Light Irradiation: Experimental and Theoretical Studies

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Fig. S1 photos of BN sample.



Fig. S2 (a) the UV-vis spectrum of MB; (b) the UV-vis spectrum of RhB;(c) the UV-vis spectrum of MO.



Fig. S3 (a) the standard curve of MB in water; (b) the standard curve of

RhB in water; (c) the standard curve of MO in water.



Figure.S4 the standard curve of AT.



Fig. S5 (a) MB self-degradation under visible light irradiation; (b) MO self-degradation under visible light irradiation; (c) RhB self-degradation under visible light irradiation.



Fig. S6 (a) MB self-degradation under UV-light irradiation; (b) MO selfdegradation under UV-light irradiation; (c) RhB self-degradation under UV-light irradiation.



Fig. S7 (a) the structure of cationic MO; (b) the structure of cationic MB; (c) the structure of cationic RhB; (d) the structure of BN; (e) the structure of RhB-MB; (f) the structure of RhB-MO.



Fig. S8 SEM image of BN



Fig. S9 Nitrogen adsorption-desorption isotherms



Fig. S10 the UV-vis spectra of RhB removal by BN via adsorption and photo-removal under visible light irradiation (dosage: 30 mg, RhB concentration: 20 mg/L, volume: 100 mL).



Fig. S11 the removal (including adsorption and photodegradation) of AT by BN under visible light irradiation (dosage: 30 mg, AT concentration: 5 mg/L, volume: 100 ml).



Fig. S12 Changes of absorption peak before and after MB-MO mixing