Supplementary Information

for

Aqueous photochemical reactions of chloride, bromide, and iodide ions in a diode-array spectrophotometer. Autoinhibition in the photolysis of iodide ion

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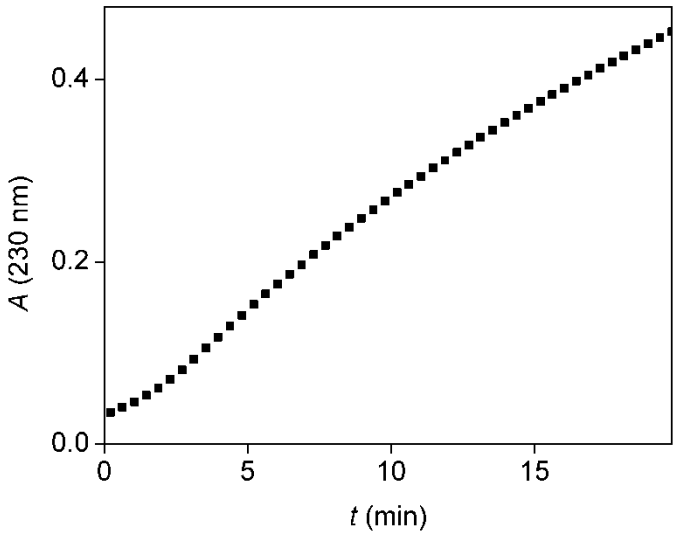

Fig. S1. Sample kinetic trace in a HCl solution upon continuous UV illumination. [HCl] = 5.056 M, *T* = 25.0 °C.

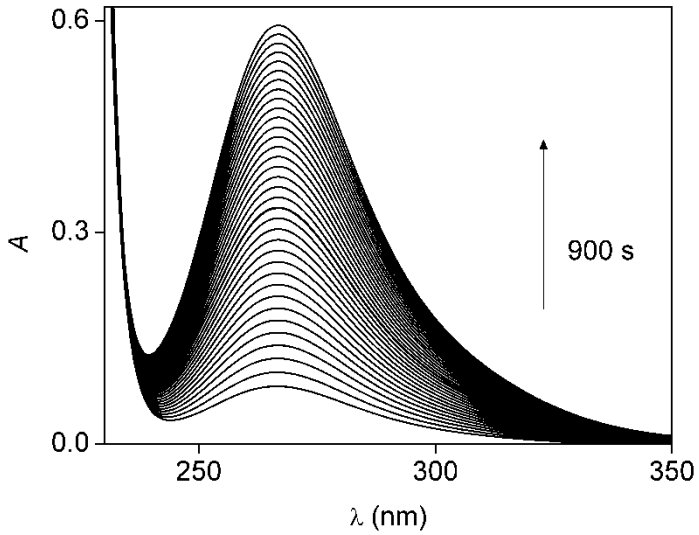

Fig. S2. Spectral changes in a HBr solution upon continuous illumination. [HBr] = 0.322 M, *T* = 25.0 °C.

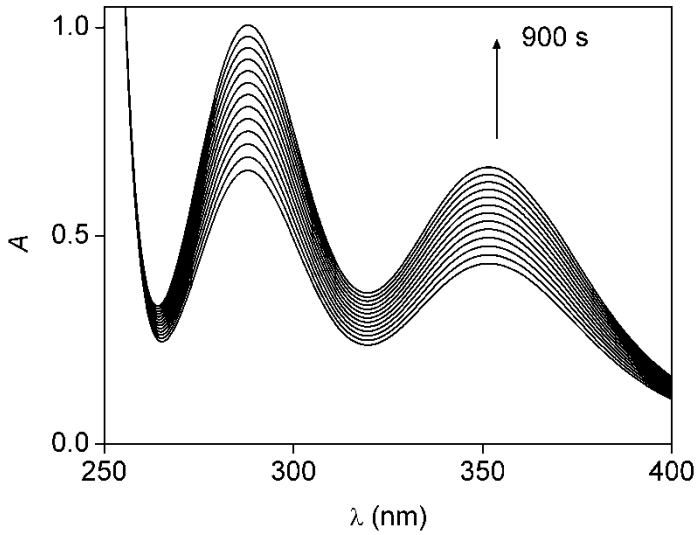

Fig. S3. Spectral changes in a HI solution upon continuous illumination. [HI] = 5.8 mM, *T* = 25.0 °C.

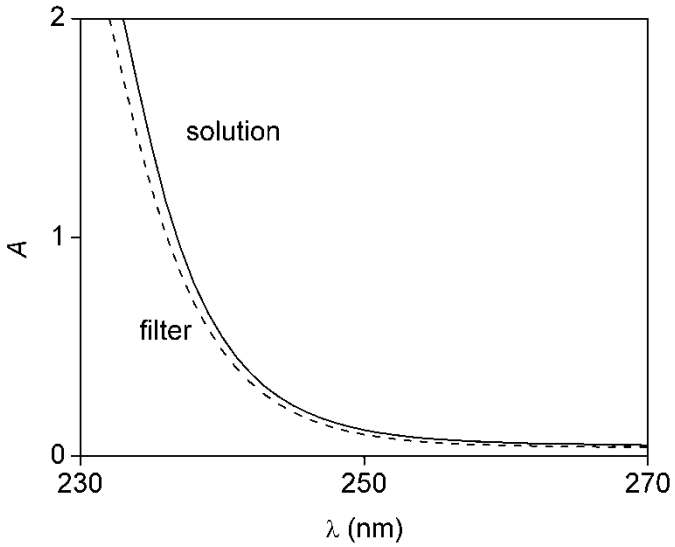

Fig. S4. Spectra of the HBr solution and the filter used in the experiment displayed in Fig. 2.

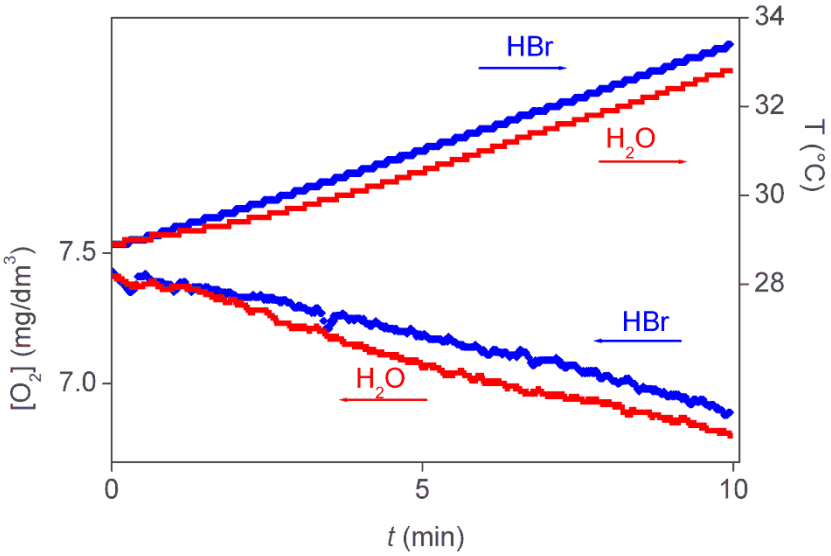

Fig. S5. Temperature and dissolved oxygen concentration as a function of time in a solution of HBr upon continuous illumination. [HBr] = 5.056 M, T = 25.0 °C. Temperature is shown by the red points (right axis) as the powerful lamp used in the experiment heated the sample despite the fact a thermostatting system was used.

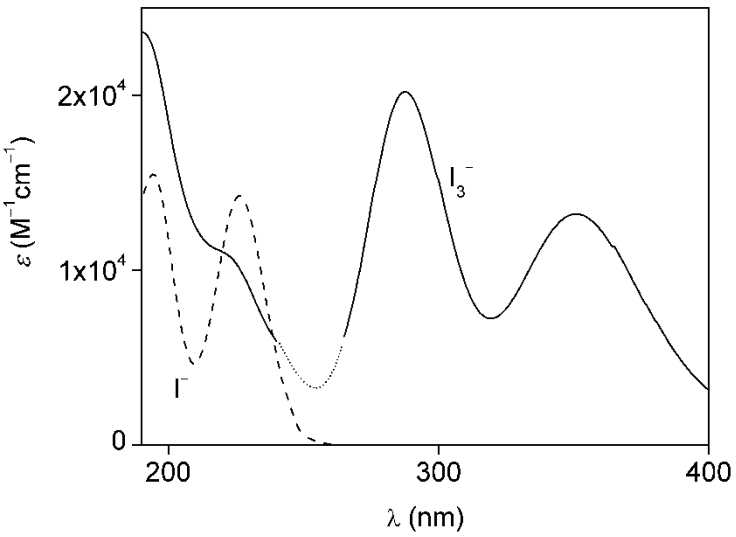

Fig. S6. Spectra of triioidie and iodide ions.

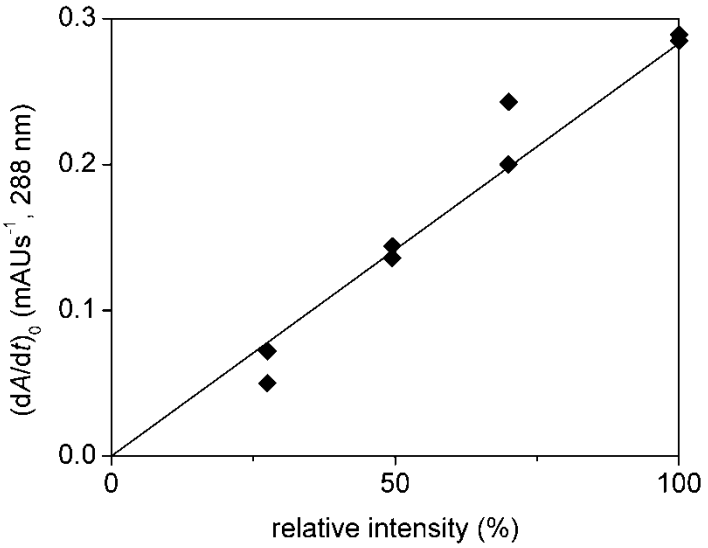

Fig. S7. Reaction rate as a function of relative intensity during the photolysis of a HI solution. [HI] = 2.00 mM, T = 25.0 °C.