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# Ultrasound/Chlorine: A Novel Synergistic Sono-Hybrid Process for Allura Red AC Degradation

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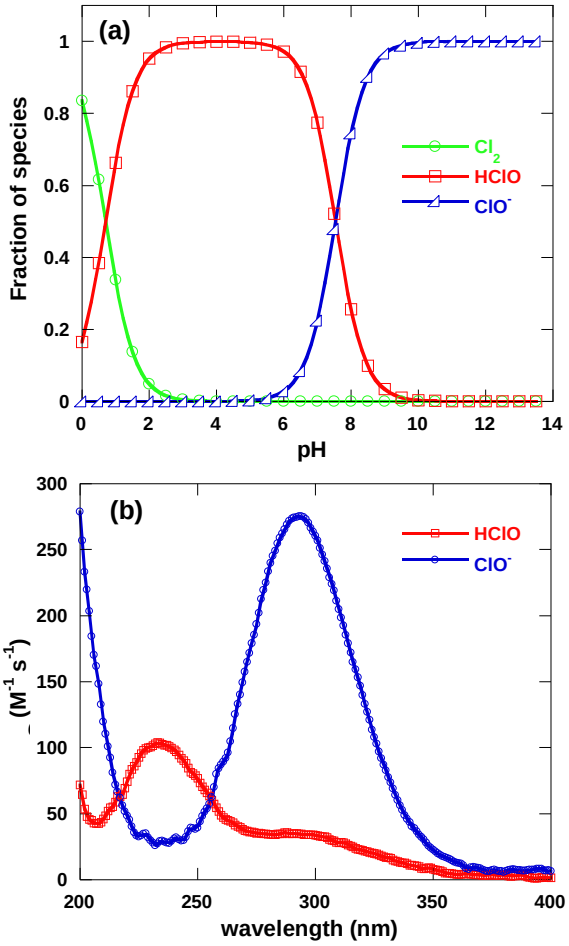


**Figure S1.** (**a**) Chlorine speciation in 0.5 mM total chlorine as function of pH and for a chloride concentration of 2 mM and (**b**) molar absorption coefficients (ε) of HOCl (pH 5) and $OCl^-$ (pH 9) as a function of wavelength.

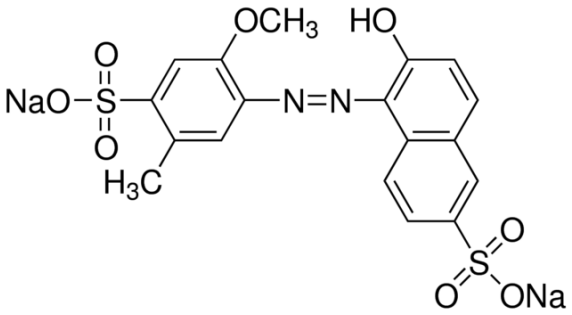


**Figure S2.** Molecular structure of Allura Red AC (ARAC). (From Sigma-Aldrich: https://www.sigmaaldrich.com/catalog/sub-stance/alluraredac496422595617611?lang=en&region=DZ).

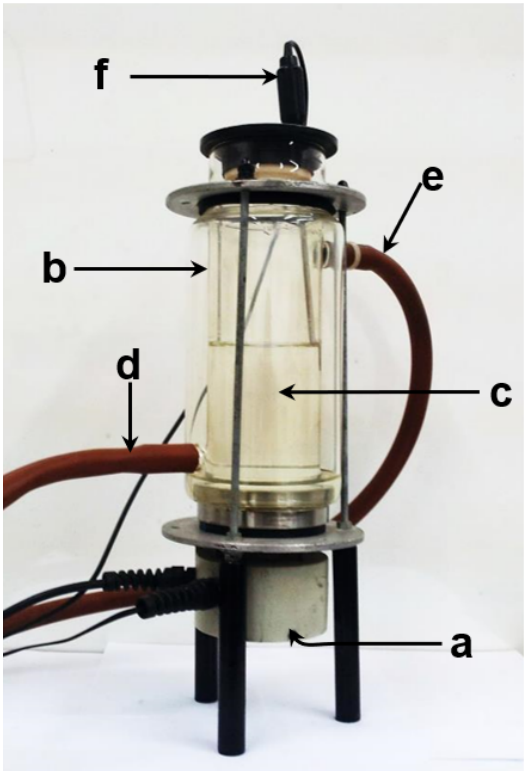


**Figure S3.** Photography of the sonochemical reactor used for the sonolytic experiments. (**a**) 600 kHz ultrasonic transducer, (**b**) cylindrical jacketed glass cell, (**c**) sonicated solution, (**d**) inlet cooling water, (**e**) outlet cooling water, (**f**) thermocouple.