

Complete Benzothiazole elimination by solar photo-Fenton in aqueous and β -cyclodextrin solutions

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1. Simulated freshwater preparation

The following table summarizes the stock solutions used for the acidic simulated water preparation according to Smith *et. al.* ¹:

Stock Solution	Mass of salt added to 100 mL of mQ water	Final required concentration (x10 ³ mg.L ⁻¹)	
		C ^{Z+}	A ^{Z-}
Solution A1			
NaCl	0.43	1.69	2.61
MgCl ₂ ·6H ₂ O	0.65	0.77	2.26
CaCl ₂ ·6H ₂ O	0.62	1.13	2.01
KCl	0.075	0.39	0.35
NaNO ₃	0.31	0.84	2.26
Solution A2			
Na ₂ SO ₄	0.6	1.94	4.05
Solution A3			
AlCl ₃ ·6H ₂ O	0.15	0.16	0.66
HCl	0.7mL 1M in 100mL	0.07	2.48

1L of acidic water was prepared by the addition of the appropriate volumes of the previously prepared stock solutions A1, A2 and A3 using a 1: 1000 dilution factor. To do so, 3/4 of the bottle was filled with triple-distilled water and then 1mL of the stock solutions was added following the order A3, A1, and A2 while stirring continuously. It was left stirring for 12 hours. The resulting pH of the solution was 2.7.

2. Figures

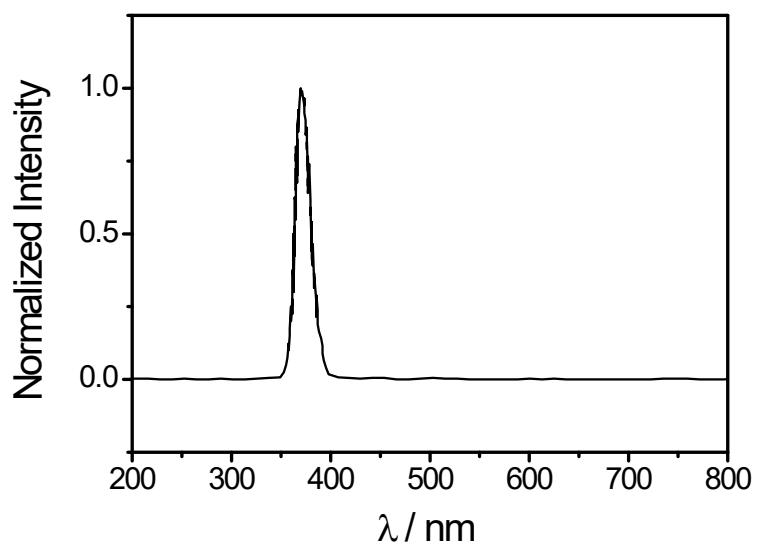


Figure S1: Emission spectra of GE F8T5BLB Fluorescent T5 Black Light Blue measured with a Spex Fluoromax spectro-fluorometer.

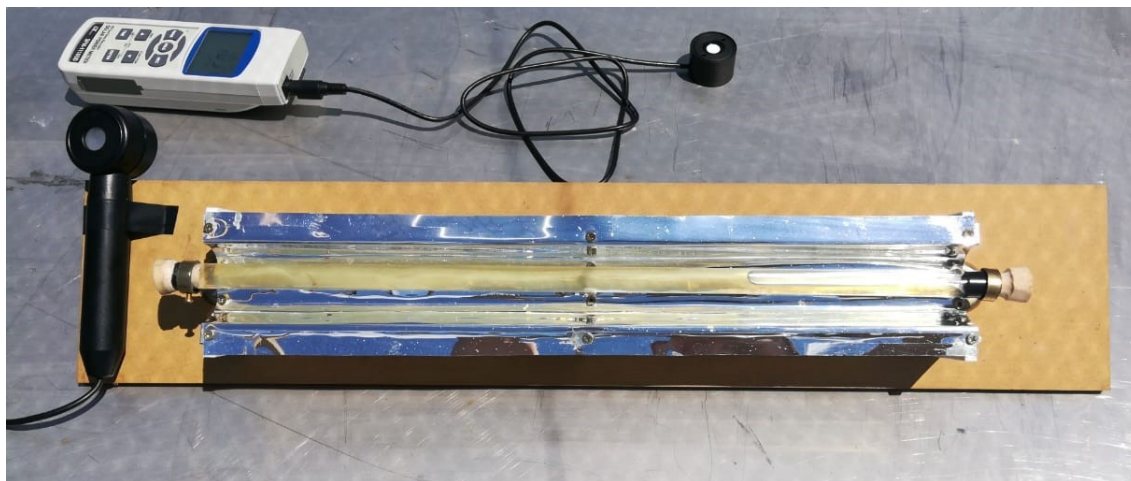


Figure S2. Reactor Solar with a cylindrical-parabolic solar collector (CPC)

References

1 E. J. Smith, W. Davison and J. Hamilton-Taylor, *Water Res.*, 2002, **36**, 1286–1296.