Supplementary Information

Table S1. Analysis of variance for the influence of time and irradiation on the degradation efficiency for TCS under simulated solar irradiation

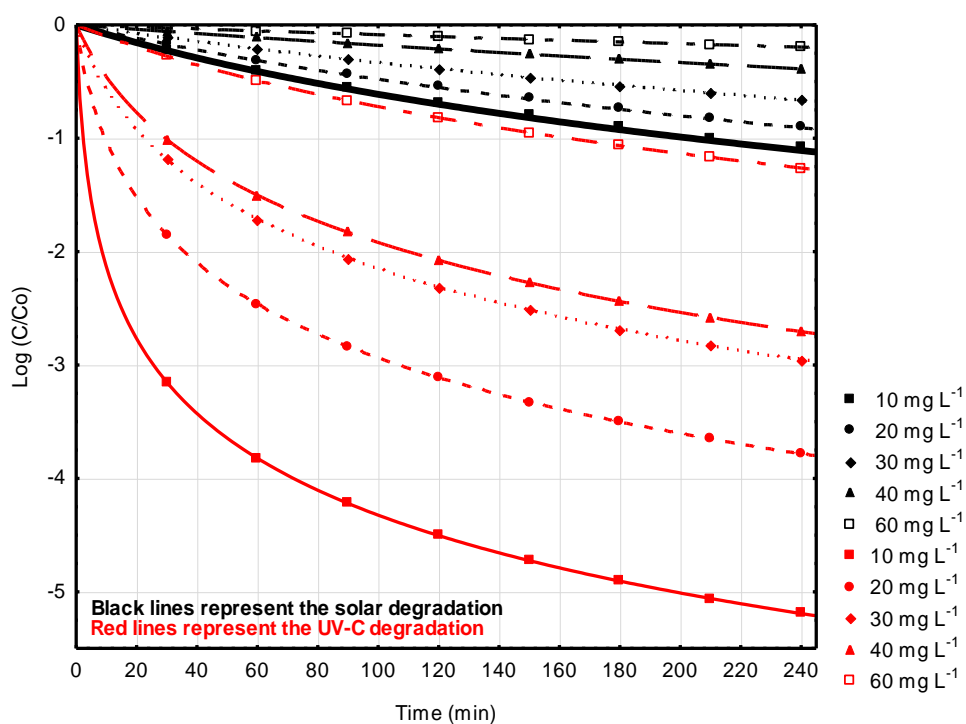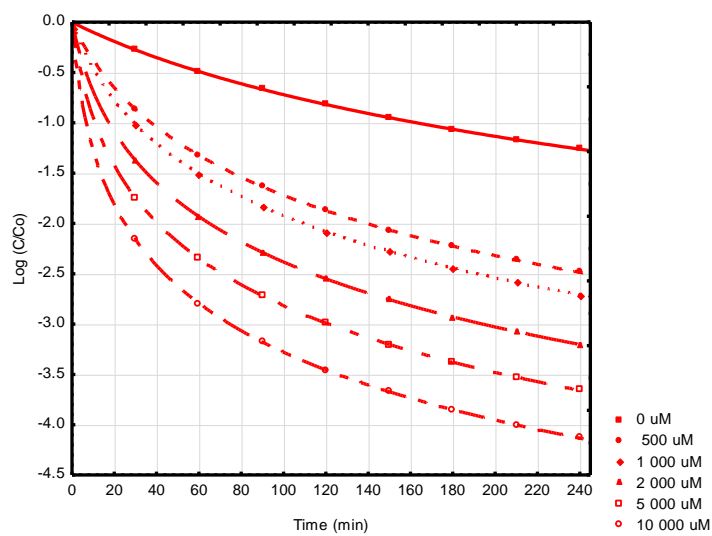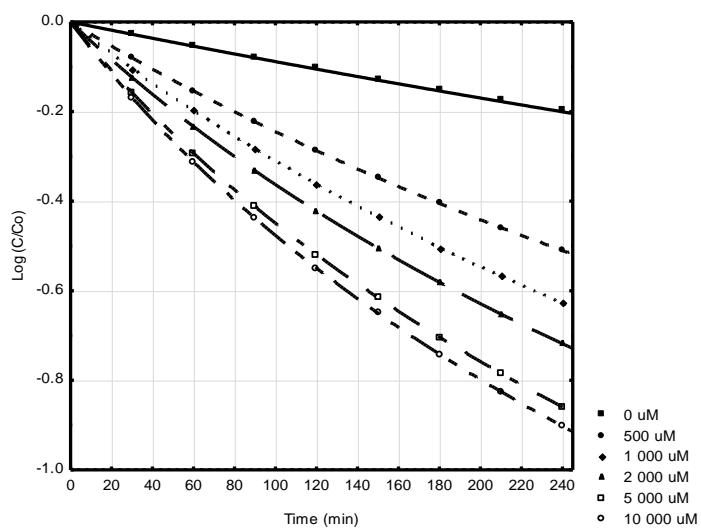| Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p-value Prob > F
Model	2346.36	5	469.27	6.14	0.0236
T	781.84	1	781.84	10.22	0.0187
I	708.73	1	708.73	9.27	0.0227
T·I	3.40	1	3.40	0.0445	0.8399
T^2	521.23	1	521.23	6.82	0.0401
I^2	548.65	1	548.65	7.18	0.0366
Residual	458.80	6	76.47		
Lack of fit	457.99	3	152.66	568.94	0.0001
Error	0.8050	3	0.2683		
Total	2805.16	11			

Figure S1. Effect of the initial concentration of TCS at 25 ºC on UV-C and solar photodegradation. Lines represent the logarithmic second- order kinetic curves.

a)

b)

Figure S2. Photodegradation degradation curves (logarithmic) of TCS in a) UV-C/$S_2O_8^{2-}$ and b) sunlight/$S_2O_8^{2-}$ systems. $[TCS]_0 = 60$ mg L^{-1}; pH = 7.0.