

Electro-Fenton-Based Technologies for Selectively Degrading Antibiotics in Aqueous Media

Ángela Moratalla ¹, Engracia Lacasa ², Pablo Cañizares ¹, Manuel A. Rodrigo ¹ and Cristina Sáez ^{1,*}

¹ Department of Chemical Engineering, Faculty of Chemical Sciences and Technologies, University of Castilla-La Mancha, 13005 Ciudad Real, Spain; angela.moratalla@uclm.es (Á.M.); pablo.canizares@uclm.es (P.C.); manuel.rodrigo@uclm.es (M.A.R.)

² Department of Chemical Engineering, Higher Technical School of Industrial Engineering, University of Castilla-La Mancha, 02071 Albacete, Spain; engracia.lacasa@uclm.es

* Correspondence: cristina.saez@uclm.es

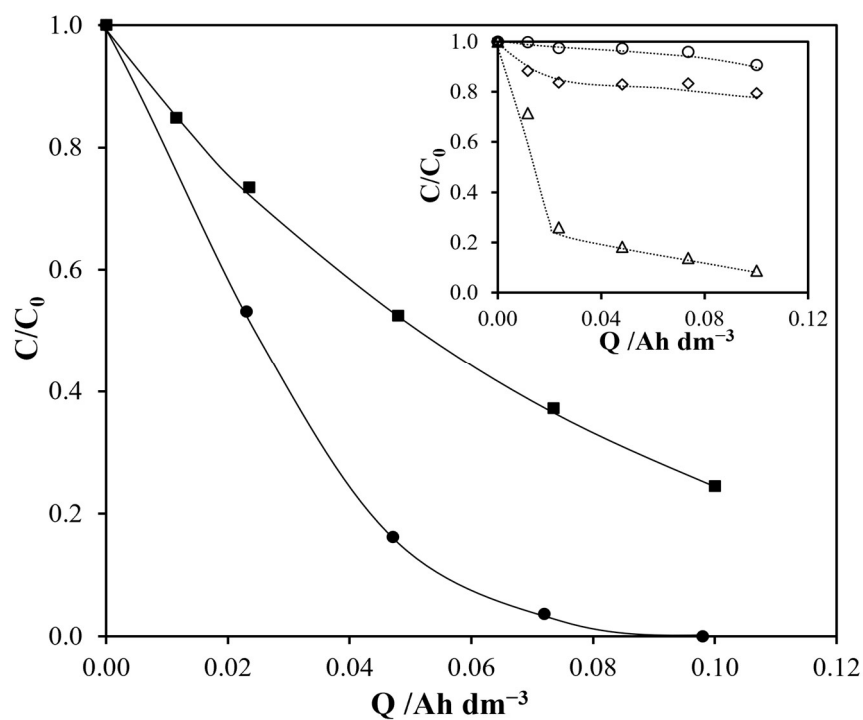


Figure S1. Evolution of Pen G concentration (C/C_0) with the electric charge passed during the EF of Pen G solutions (50 mg dm^{-3}) in 50 mM sodium sulfate medium (●) or urine (■). Onset: Evolution of the concentration of the main organics present in urine medium: urea (○), creatinine (◇) and uric acid (Δ). Experimental conditions: $j = 5 \text{ mA cm}^{-2}$, $\text{pH}_0 = 3$, MMO as anode and titanium foam with CB/PTFE as cathode.

Table S1. Composition of the synthetic urine.

Compound	Molecular Formula	Concentration /mg dm ⁻³
Urea	CH ₄ N ₂ O	3333.34
Creatinine	C ₄ H ₇ N ₃ O	166.67
Uric acid	C ₅ H ₄ N ₄ O ₃	50.00
Potassium chloride	KCl	1000.00
Magnesium sulfate	MgSO ₄	170.00
Calcium phosphate	(Ca) ₃ (PO ₄) ₂	28.34
Sodium carbonate	Na ₂ CO ₃	166.67
Diammonium hydrogen phosphate	(NH ₄) ₂ HPO ₄	83.34