

Supplementary Information

Performance and Kinetic-Mechanistic Aspects in the Electrochemical Degradation of Sulfadiazine on Boron-Doped Diamond Electrode

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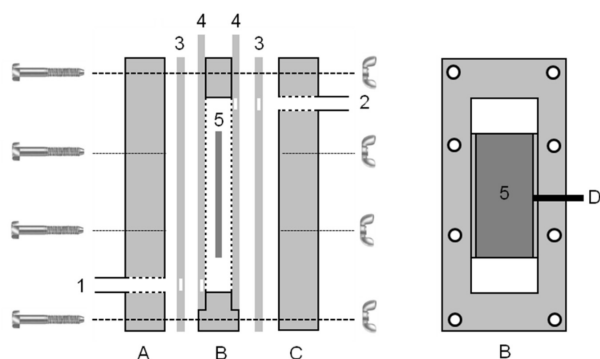


Figure S1. Schematic representation of the filter-press reactor used in the SDZ electrochemical degradation. (A) and (C) end plates; (B) anode holder (and its frontal vision); (D) electrical contact. (1) Solution inlet and (2) solution outlet; (3) silicone gaskets; (4) stainless steel plates (cathode); (5) BDD electrode (anode).

Table S1. Current limit (I_{lim}), mass coefficient transport (k_m) and current limit density (i_{lim}) values obtained from reference 1 and equations S1 and S2

Flow rate / (L min ⁻¹)	I_{lim} / A	$k_m \times 10^{-5}$ / (m s ⁻¹)	i_{lim} / (mA cm ⁻²)
1.0	0.140	0.81	3.43
2.0	0.244	1.40	5.90
3.0	0.333	1.92	8.37
4.0	0.442	2.54	10.9
5.0	0.543	3.13	13.5

$$I_{lim} = nFk_m AC \quad (S1)$$

$$i_{lim}(t) = 4Fk_m COD_{SDZ} \quad (S2)$$

Reference

- de Amorim, K. P.; Romualdo, L. L.; Andrade, L. S.; *Sep. Purif. Technol.* **2013**, *120*, 319.