

Supplementary Materials file

Green Synthesis of Hydrogel-Based Adsorbent Material for the Effective Removal of Diclofenac Sodium from Wastewater

Mariana Chelu ^{1,*†}, **Monica Popa** ^{1,†}, **Jose Calderon Moreno** ^{1,*}, **Anca Ruxandra Leonties** ¹, **Emma Adriana Ozon** ², **Jeanina Pandelete Cusu** ¹, **Vasile Adrian Surdu** ³, **Ludmila Aricov** ¹ and **Adina Magdalena Musuc** ^{1,*}

¹ “Ilie Murgulescu” Institute of Physical Chemistry, 202 Spl. Independentei, 060021 Bucharest, Romania; pmonica@icf.ro (M.P.); aleonties@icf.ro (A.R.L.); jeanina@icf.ro (J.P.C); laricov@icf.ro (L.A.)

² Department of Pharmaceutical Technology and Biopharmacy, Faculty of Pharmacy, Carol Davila University of Medicine and Pharmacy, 6 Traian Vuia Street, 020945 Bucharest, Romania. emma.budura@umfcd.ro (E.A.O.)

³ Department of Science and Engineering of Oxide Materials and Nanomaterials, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, 060042 Bucharest, Romania; adrian.surdu@upb.ro (V.A.S.)

* Correspondence: mchelu@icf.ro (M.C.); calderon@icf.ro (J.C.M.); amusuc@icf.ro (A.M.M.).

† These authors contributed equally to this work.

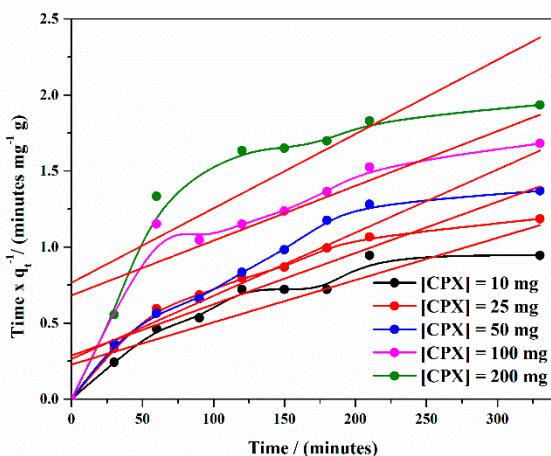


Figure S1. The plot of the non-linear form of the pseudo second-order model for different amounts of CPX hydrogel and 0.33 mg DCF

Table S1. Pseudo second-order kinetic parameters of DCF adsorption on different amounts of CPX hydrogel.

[CPX]/(mg)	Intercept	Slope	Adj. R ²
10	0.23	2.78×10^{-3}	0.78
25	0.29	3.37×10^{-3}	0.81
50	0.26	4.15×10^{-3}	0.86
100	0.77	4.88×10^{-3}	0.50
200	0.68	3.60×10^{-3}	0.53

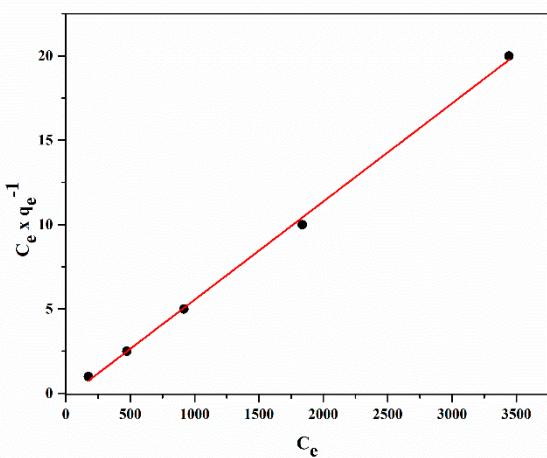


Figure S2. Langmuir isotherm representation of DCF adsorption in presence of different CPX amounts.

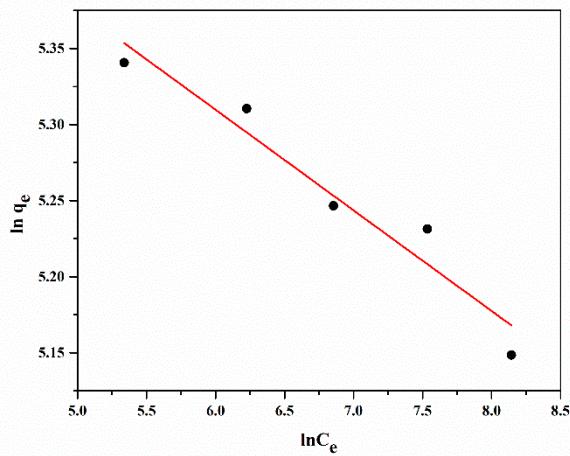


Figure S3. Freundlich isotherm representation of DCF adsorption in presence of different CPX amounts.