

Accepted Manuscript

Title: Photochemical, thermal, biological and long-term degradation of celecoxib in river water. Degradation products and adsorption to sediment

Authors: Juan J. Jiménez, Rafael Pardo, María I. Sánchez, Beatriz E. Muñoz



PII: S0304-3894(17)30630-1
DOI: <http://dx.doi.org/10.1016/j.jhazmat.2017.08.037>
Reference: HAZMAT 18802

To appear in: *Journal of Hazardous Materials*

Received date: 27-5-2017
Revised date: 11-8-2017
Accepted date: 14-8-2017

Please cite this article as: Juan J. Jiménez, Rafael Pardo, María I. Sánchez, Beatriz E. Muñoz, Photochemical, thermal, biological and long-term degradation of celecoxib in river water. Degradation products and adsorption to sediment, *Journal of Hazardous Materials* <http://dx.doi.org/10.1016/j.jhazmat.2017.08.037>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Photochemical, thermal, biological and long-term degradation of celecoxib in river water. Degradation products and adsorption to sediment.

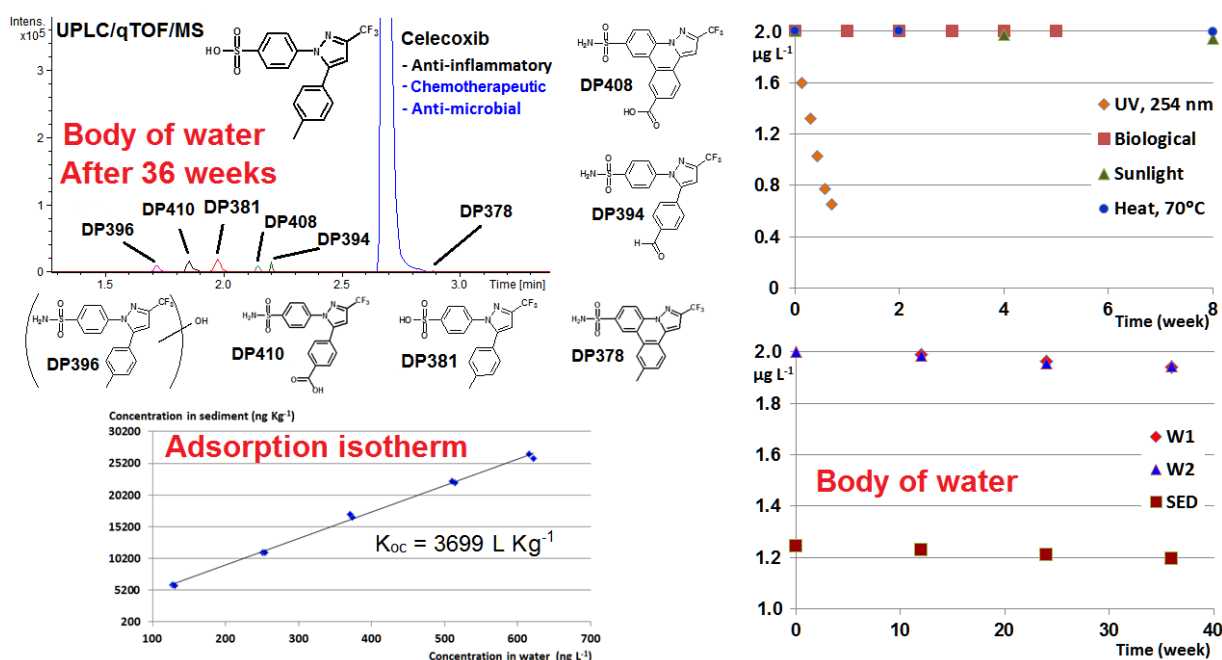
Juan J. Jiménez^{1,2*}, Rafael Pardo¹, María I. Sánchez³, Beatriz E. Muñoz³

¹Department of Analytical Chemistry (UIC090), Faculty of Sciences, Campus Miguel Delibes, University of Valladolid, Paseo de Belén 7, 47011-Valladolid, Spain

²I.U. CINQUIMA, Campus Miguel Delibes, University of Valladolid, Paseo de Belén 5, 47011-Valladolid, Spain

³Department of Analytical Chemistry, School of Industrial Engineers, University of Valladolid, Francisco Mendizábal 1, 47014-Valladolid, Spain

Graphical abstract



HIGHLIGHTS

- Celecoxib is a persistent drug in surface water.
- The solar radiation promotes its slow degradation.
- 11 degradation products tentatively identified from high-resolution MS/MS spectra.
- Sulfonic, carboxylic and hydroxylated derivatives are the main degradation products.
- Celecoxib can be partially adsorbed onto aquatic sediment.

*Corresponding author; e-mail: jjimenez@qa.uva.es; Tel.: +34 983423262; fax +34 983423013

Download English Version:

<https://daneshyari.com/en/article/4979081>

Download Persian Version:

<https://daneshyari.com/article/4979081>

[Daneshyari.com](https://daneshyari.com)