

Accepted Manuscript

Title: Sulfamethoxazole photocatalytic degradation in a continuous flow reactor using artificial radiation

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PII: S2213-3437(18)30090-3
DOI: <https://doi.org/10.1016/j.jece.2018.02.018>
Reference: JECE 2210

To appear in:

Received date: 27-9-2017
Revised date: 8-2-2018
Accepted date: 12-2-2018

Please cite this article as: Pablo Ricardo Piceti Pretto, Soraya Moreno Palácio, Élvio Antonio de Campos, Claudia Regina Pazini, Márcia Teresinha Veit, Sulfamethoxazole photocatalytic degradation in a continuous flow reactor using artificial radiation, Journal of Environmental Chemical Engineering <https://doi.org/10.1016/j.jece.2018.02.018>

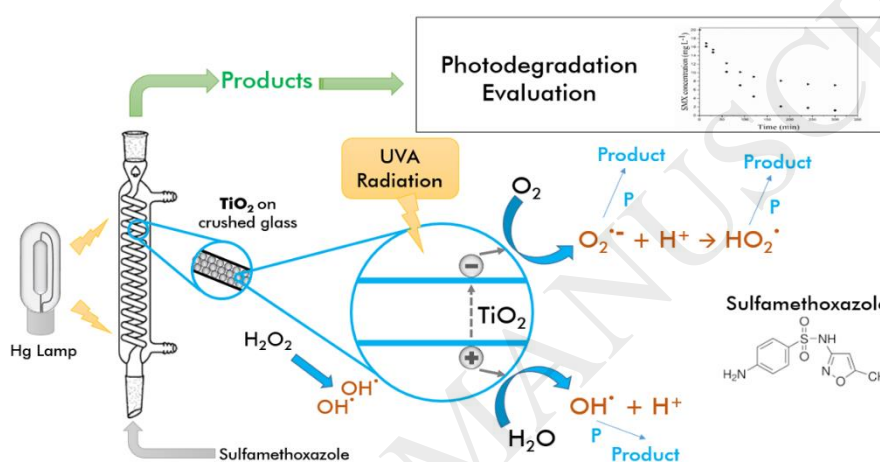
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SULFAMETHOXAZOLE PHOTOCATALYTIC DEGRADATION IN A CONTINUOUS FLOW REACTOR USING ARTIFICIAL RADIATION

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Graphical abstract



HIGHLIGHTS

- The residue from crushed glasses presented potential as a support material
- The SMX photodegradation was carried out in a fixed bed with recirculation
- Different impregnation methods resulted in different toxic effects
- There was no difference in the TiO₂ leaching among the evaluated methods
- The impregnation by immersion resulted in a higher proportion of the anatase phase

ABSTRACT

The degradation of the sulfamethoxazole (SMX) contaminant was studied using crushed borosilicate glass in two particle sizes (300 and 600 μm) impregnated with the TiO₂ catalyst. Two distinct forms of impregnation have been evaluated: i) direct immersion in a TiO₂ suspension and ii) solvothermal synthesis of the TiO₂ precursor. The TXRF and XRD analyses performed for the impregnated crushed

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