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Title: STUDY OF THE INTENSIFICATION OF SOLAR PHOTO-FENTON DEGRADATION OF CARBAMAZEPINE WITH FERRIOXALATE COMPLEXES AND ULTRASOUND

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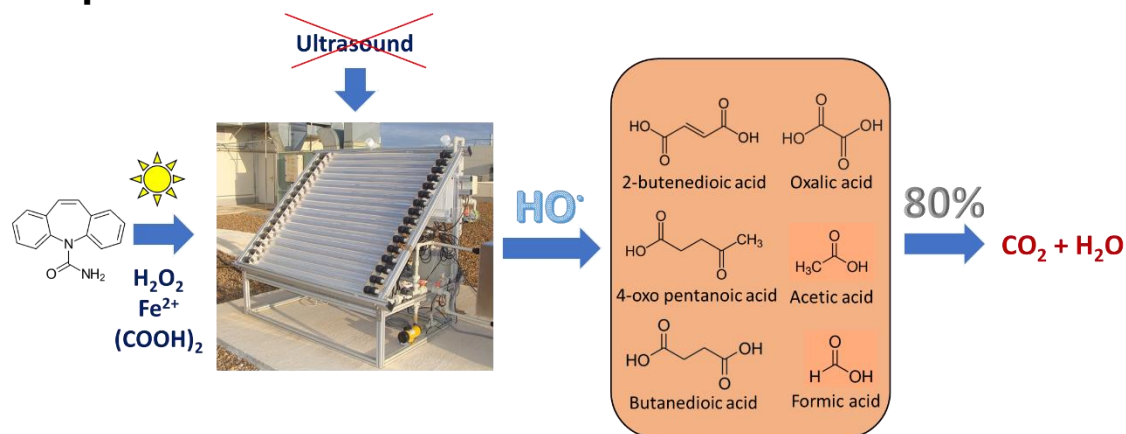
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STUDY OF THE INTENSIFICATION OF SOLAR PHOTO-FENTON DEGRADATION OF CARBAMAZEPINE WITH FERRIOXALATE COMPLEXES AND ULTRASOUND

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Graphical abstract



Highlights

- We have studied the mineralization of carbamazepine aqueous solutions.
- 80% TOC removal from the treated water was reached.
- A reaction pathway for the CBZ mineralization was proposed.

ABSTRACT

The intensification of the solar photo-Fenton system with ferrioxalate photoactive complexes and ultrasound applied to the mineralization of 15 mg/L carbamazepine aqueous solution (CBZ) was evaluated. The experiments were carried out in a solar compound parabolic collector (CPC) pilot plant reactor coupled to an ultrasonic processor. The dynamic behavior of hydroxyl radicals generated under the different

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