Advanced oxidation degradation of organic pollutants in water media, coupled with electrochemical monitoring of the process.

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Abstract

Advanced oxidation processes are very effective methods for organic pollutants destruction in water media. These can be brought about chemically, electrochemically, and in other physical-chemical processes, where hydroxyl radical are the oxidizing species generated which in turn degrade organic molecules [1]. Usually, the monitoring of the degradation trail of the given molecules is performed with advanced analytical techniques such as f HPLC, however in this work the monitoring of the targeted molecules is performed with an electroanalytical method. This type of monitoring is being attempted in order to reduce cost, time, and complexity of the process. An electrolytic cell containing a set of electrodes; graphite fibre cathode and platinum coated titanium anode is employed for the degradation process, as well as the Fenton process [2]. For electrochemical analysis of the solution under treatment a potentiostat with an electrochemical cell is used [3].

References

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