

Degradation of paracetamol in dynamic mode in a reactor with a spiral geometry by photo catalytic material.

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Abstract.

Heavy metals, organic dyes, pesticides, drugs are known to be frequent pollutants that threaten human health and the environment.

The study of the photocatalytic degradation of micro pollutants (secondary pollution), including the pharmaceutical compound reveals a great importance for the process of degradation and environment.

The presence of pharmaceuticals in aqueous matrices was confirmed since the 70 s, many recent studies show the universality of the presence of pharmaceutical compounds in aquatic.

The accumulation of drug residues, used in health centers, households and veterinary medicine, in natural environments can have adverse consequences on aquatic environments. This work aims to study the elimination of a non-steroidal anti-inflammatory drug by the photo-catalytic process. The monitoring of the degradation was carried out in the presence of a ZnO photo catalytic material in a spiral-geometry reactor. Key words: Drug, pollution, photo catalysis, tubular reactor, paracetamol

Keywords: Environment, drug residues, photo catalytic degradation, spiral-geometry reactor.