

PhD Candidate Profile

Name:

Flores Garcia, Jenny

Research Group (if relevant):

Photochemistry

Research Centre (if relevant):

Universitat Politècnica de València

Department/School(s) (if relevant):

Instituto mixto de Tecnología Química, ITQ (UPV-CSIC)

College:

Universitat Politècnica de València, Valencia.

Supervisor(s):

Dra. Maria Luisa Marin

Dr. Francisco Bosca

Funding body:

CONSEJO NACIONAL DE CIENCIA Y TECNOLOGÍA (CONACYT)

Area (field) of study:

Wastewater treatment by heterogeneous photocatalysts

Thesis Title:

Synthesis and characterization of new heterogeneous photocatalysts for the photodegradation of drugs in aqueous medium

Abstract:

In the last decade, there has been a growing concern related to environmental and health impacts related to the presence of recalcitrant pollutants in aquatic media. The use of fluoroquinolone antibiotics (FQs) as therapeutic agents and growth promoters is increasing all over the world. They are not completely eliminated during the conventional wastewater treatment processes, becoming a family of pollutants of environmental concern. This project aims to develop new photocatalysts for the elimination of FQs. We propose the synthesis of new photocatalysts based on $\text{Fe}_3\text{O}_4@\text{SiO}_2$ core@shell nanoparticles (NP) covalently derivatized with Rose Bengal (RB) or other organic molecules able to absorb visible light. The presence of a magnetic core will ultimately facilitate separation.

Collaborations:

N/A



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Publications:

N/A

Presentations:

3rd Summer School of the European PhD School on Advanced Oxidation Processes (AOPs).
Alcoy, Spain, 3-7 June 2018.