

PhD Candidate Profile

Name:

Ángela García Gil

Department:

Department of Chemical and Environmental Technology (ESCET)

College:

Rey Juan Carlos University

Supervisor:

Javier Marugán Aguado

Funding body:

N/A

Area (field) of study:

Water Treatment and CFD Design of reactors.

Thesis Title:

Computational modelling of solar water disinfection processes.

Abstract:

The lack of safe drinking water (mainly developing countries) is a serious worldwide challenge. Solar water disinfection (SODIS) is an eco-friendly, cheap and sustainable process, which uses sunlight as disinfectant agent. The pathogens damage varies with the sun spectrum. The sun spectrum that arrives to the Earth surface changes with moment and place (latitude, longitude and datetime). Thus, the water disinfection time is different. The goal of this thesis is to model the process for different pathogens in function of the world place and develop it in a computational simulation to optimize the time and scale up to any reactor.

Presentations:

5th European Conference on Enviromental Applications of Advanced Oxidation Processes (EAAOP5). Prague, Czech Republic, 25th-29th June, 2017.

10th World Congress of Chemical Engineering (WCCE10). Barcelona, Spain, 1st-5th October, 2017.

