



New Trends in the Photocatalytic Removal of Organic Dyes

Guest Editor:

Dr. Vincenzo Vaiano

Department of Industrial
Engineering, University Salerno,
Via Giovanni Paolo 2 132, I-84084
Fisciano, Salerno, Italy

Deadline for manuscript
submissions:

closed (30 June 2019)

Message from the Guest Editor

Currently, different types of dyes consisting of varied chemical compounds are used in the production of consumer products. The effluent generated by these activities are one of the main causes of environmental pollution, because the effluent coming from the dyeing industry is highly colored, causing damage to aquatic life. For this reason, water pollution due to the dyeing industry is a matter of great concern, as large quantities of effluent are discharged into water bodies. However, due to the low biodegradability of dyes, the typical biological treatment processes are not very effective in the treatment of wastewater containing dyes. In this context, heterogeneous photocatalysis can be effectively exploited for the removal of various dye pollutants present in liquid media. Heterogeneous photocatalysis may represent one of the main challenges in the field of the treatment and decontamination of water, because it is able to work at ambient temperature and atmospheric pressure. Its operating principle is based on the simultaneous action of the light source and a catalyst (semi-conductor), which allows the degradation of organic pollutants.

