EnvironBos

Project ID: 269128
Funded under: FP7-PEOPLE

Isolation, Characterization and screening of environmental applications of Bio-Organic substances obtained from urban biomasses (EnvironBOS)

From 2011-06-01 **to** 2014-09-30, closed project

Project details

Total cost:	**Topic(s):**
EUR 119 700	FP7-PEOPLE-2010-IRSES - Marie Curie Action "International Research Staff Exchange Scheme"
EU contribution:	**Call for proposal:**
EUR 119 700	FP7-PEOPLE-2010-IRSES See other projects for this call
Coordinated in:	**Funding scheme:**
Spain	MC-IRSES - International research staff exchange scheme (IRSES)

Objective

The organic fraction of urban wastes can represent a rich source of bio-organic substances (BOS) easily available from urban facilities performing aerobic or anaerobic biodegradation of biomass residues; they may provide a large variety of BOS fitting a wide range of uses. The aim of the project is to explore the valorization of these residues by their use in the detoxification of other aqueous wastes. In particular, three research lines are of our interest:
1- Determination of the photophysical and photochemical properties of BOS and main reactive species that are able to generate.
2- Use of BOS as solar photocatalysts, possible participation in the self cleaning of the effluents and other related strategies for waste minimization.
3- Use as templates for the synthesis of materials for environmental purposes, such as mesoporous titanium dioxide or nanoparticles of Ag, Si or Au.
Four multidisciplinary groups from Argentina (Laboratorio de Especies Altamente Reactivas, from Universidad Nacional La Plata), with research lines focused on environmental chemistry and materials science, Brazil (Instituto de Química; Universidade de Sao Paulo) with research interests in laboratory and pilot waste treatment and development of industrial simulation procedures, Italy (University of Torino) with research interests in photochemistry, environmental and analytical chemistry as well as material science and Spain (Grupo Procesos de Oxidación Avanzada, Universidad Politécnica de Valencia), that investigates in solar photocatalysis, photophysics and textile engineering, will collaborate to carry out this group. A training program focused on early researchers and a diffusion program for the obtained results will also be implemented. With this background a exchange program to benefit the synergies between the groups is planed, as explained in detail at section B.

Related information

Result In Brief	Using urban waste to fight pollution
Report Summaries	Final Report Summary - ENVIRONBOS (Isolation, Characterization and screening of environmental applications of Bio-Organic substances obtained from urban biomasses (EnvironBOS))

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Subjects

Employment issues - Social sciences and humanities

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