

Schematic representation of ELECTROACROSS



Advanced analytical techniques in ELECTROACROSS. Matrix characterization and monitoring electrokinetic processes in recovery, remediation and conservation

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Introduction

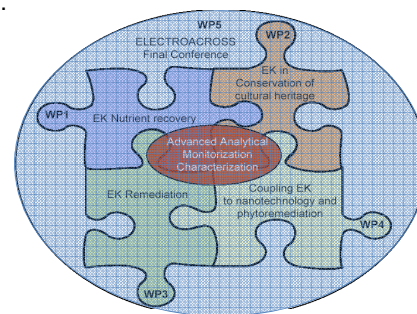
The conciliation of the electrokinetic transport processes (EK) in the recovery of secondary resources, remediation and conservation is a multidisciplinary novel approach that opens new technical possibilities for waste minimization, through upgrading of particulate waste products and the recovery of secondary resources for industrial, agricultural or social use.

This objective is achieved through knowledge transfer activities among a network of European and other continents centers of excellence, consolidating a School of Electrokinetics.



Overview of the project

ELECTROACROSS - *Electrokinetics across disciplines and continents: an integrated approach to finding new strategies to sustainable development* is a FP7 International Research Staff Exchange Scheme (IRSES) programme that started the mobility of its 40 researchers in May 2011 and will last for 4 years.



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Objectives

EK nutrient recovery

- To recover P, K, Ca
- End users - chemical industry and agricultural sector

EK in conservation of culture heritage

- To develop a new technique to restore traditional "Azulejo" tiles

EK remediation

- To remediate selected matrices contaminated with organics and inorganics

Coupling EK with other technologies

- Development of new techniques EK+Nanoremediation EK+Phytoremediation

Advanced analytical methodologies

- for characterization of complex environmental polluted matrices and monitoring of remediation processes

Researchers' exchange scheme

FROM	TO	Researchers
FFCT-UNL	Monash U	2 ER
	USM	2 ER
	PFUR	1 ER
	UFMG	2 ER
	ISSCAS	1 ER + 2 ESR
	LehighU	1 ESR
UALG	USM	2 ER + 1 ESR
UMA	USM	2 ER + 1 ESR
	PFUR	2 ER
DTU	USM	2 ER + 1 ESR
	UFMG	1 ER
USM	FFCT - UNL	2 ESR
	DTU	1 ER
ISSCAS	FFCT - UNL	1 ER + 2 ESR
	DTU	2 ER
MonashU	FFCT - UNL	2 ER + 1 ESR
	FFCT - UNL	1 ER + 1 ESR
PFUR	UMA	2 ER + 1 ESR
	DTU	1 ER + 1 ESR
UFMG	FFCT - UNL	4 ER + 2 ESR
	FFCT - UNL	2 ER
LehighU	FFCT - UNL	2 ER
	DTU	1 ER

194 secondments

40 researchers

L FFCT-UNL - Fundação da Faculdade de Ciências e Tecnologia/UNL, Portugal
UALG - Universidade do Algarve, Portugal
eUMA - Universidad de Malaga, Spain
TDTU - Technical University of Denmark, Denmark
gUSM - Universidad Técnica Federico Santa María, Chile
SISSCAS - Institute of Soil Science Chinese Academy of Sciences, China
eMonashU - Centre for Green Chemistry, Monash University, Australia
nPFUR - Peoples' Friendship University of Russia, Russia
UFMG - Universidade Federal de Minas Gerais, Brasil
dLehighU - Lehigh University, USA

ER - Experienced researcher; ESR - Early stage researcher

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