

SINCHEM
Sustainable Industrial CHEMistry

Duration: 36 months

Course description:

SINCHEM is a proposal to the EU Erasmus Mundus Joint Doctorates (EMJD) program to create an International joint Doctoral School in Sustainable Industrial Chemistry. The role of sustainable chemistry as catalyst for innovation and growth in Europe is well demonstrated (ETP SusChem), but surprising there are not an EMJD on this topic currently.

This Joint Doctorate School combines a well-structured, interdisciplinary training programme with high quality research work in leading laboratories from four countries: The Universities of Bologna and Messina, and the Politecnico of Torino in Italy, Université de Lyon (CPE Lyon - CNRS) and Ecole Nat. Sup. de Chimie de Montpellier (Inst. C. Gerhard) in France, RWTH Aachen in Germany, and Nottingham University in UK. In addition to these seven full partners there are 17 associated partners (mainly companies in the field of sustainable chemistry and energy) from seven countries. SINCHEM is thus a strategic partnership to promote education in Sustainable Industrial Chemistry. SINCHEM programme represents a coherent action which extends and gives continuity to the work-package dedicated to Education in the European Network of Excellence IDECAT. Most of the SINCHEM partners operated within the well-structured and integrated IDECAT environment for 5.5 years of strong collaborations.

This joint doctorate extends these core activities on catalytic sustainable processes to include other relevant area, from novel green solvents to renewable energy/feedstock and process intensification, to provide a more complete view of the strategies and scientific tools to realize sustainable industrial chemical processes. The mission of the international joint Doctoral School in sustainable industrial chemistry is to bridge fundamental knowledge to applied development by joining different top-level competences across Europe. It is emphasized the concept of transferring sustainable/green chemistry from idea to innovation.

In addition to knowledge on science and technology tools on sustainable industrial chemistry (with focus on catalysis, novel green solvents, renewable energy and raw materials, and process intensification) and laboratory-based core of research activities, the Doctorate will offer to the students additional skills relevant for their professional career development and employability: i) two mobility periods for at least 6th months in total in a different country from that of the home University (one of the two periods preferably in a company); ii) Local-based educational/training and e-learning/remote training, summer schools or analogous activities, and training course on some equipment with practical experiments; iii) activities to promote personal awareness and capacities, and activities to promote professional skills; iv) activities for publication of the scientific results in high IF journals and scientific presentations in international con-gresses as well as periodic SINCHEM meetings.

Website: <http://www.sinchem.eu>

Partners:

ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA, Italy (Co-ordinating Institution)
ECOLE NATIONALE SUPÉRIEURE DE CHIMIE DE MONTPELLIER, France
UNIVERSITÉ DE LYON, France
RWTH AACHEN UNIVERSITY, Germany
POLITECNICO DI TORINO, Italy
UNIVERSITY OF MESSINA, Italy
UNIVERSITY OF NOTTINGHAM, United Kingdom

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Maximum grant:

1 196 600 € (50 000 € consortium + 1 146 600 € fellowships), 2013