MiEl

Doctoral network for microprocess engineering for electrosynthesis

PRESS RELEASE

Sustainable syntheses for the production of fine chemicals

The international research network "MiEl" aims to develop novel synthesis technologies that use renewable and sustainable electricity for the production of pharmaceuticals and other valuable chemicals.

Electrochemical synthesis pathways are an efficient use of renewable energies. In the research net-work "MiEl" (Grant Agreement No. 101073003), led by the Fraunhofer Institute for Chemical Tech-nology ICT and funded by the Marie Sklodowska-Curie Program of the European Union, 12 interna-tional PhD students will develop electrochemical synthesis processes for mass production, applying concepts of microfluidic cells. To make the syntheses efficient and powerful, simulations and model-ling will accompany the system development. The technologies will be developed for industrial appli-cations in collaboration with relevant industry.

The special feature of this type of project is that the doctoral students will have the opportunity to be trained by an interdisciplinary European consortium of industrial companies and research organiza-tions. The PhD students recruited by the industrial partners will complete research stays at the aca-demic partners, while the PhD students at the academic institutions will complete secondments mainly in industry. All 12 doctoral candidates are linked together in a scientific program to solve in-terdisciplinary research questions in the very promising field of electrosynthesis. This creates a valua-ble network where academic know-how can be quickly transferred into applications for industry or society. The doctoral students will receive excellent training in both scientific, technical and soft skills like management or presentation techniques. Their new knowledge of research and development methods will be trained in practice applying the newly developed models, materials, and processes to develop new synthetic routes for fine chemicals and pharmaceuticals.

To find out more about the project, please visit the webpage http://project-miel.eu and/or contact the project coordinators at the Fraunhofer Institute for Chemical Technology ICT, Pfinztal, Germany.

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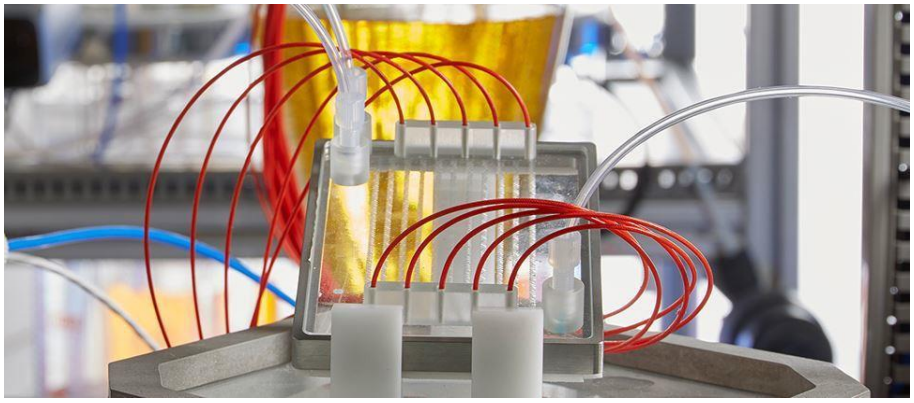

Flow reactor with spatially resolved inline spectroscopy using fiber optics

The MiEI consortium at the kick-off meeting in Pfinztal, Germany, 24th January 2023