



Centre en chimie verte et catalyse

Center in Green Chemistry and Catalysis

Green Chemistry and Catalysis Seminar: Francesca Paradisi- Enzymes: making them part of the chemist's standard toolbox

Abstract:

The move towards sustainable syntheses is a widespread effort which sees academia and industry developing new strategies and solutions. But why is it that biocatalysis, in general, is still not part of the standard toolbox of a chemist? Enzymes are felt to be challenging to work with, they would require a major revolution of the setup of an existing process, it appears easier to just replace the catalyst with a more efficient newer one which can be just slotted in in a well established multi-step chemical cascade. We are trying to change this by making enzymatic steps just as easy to be at least considered. Flow chemistry for example, and in general the flow set up, with the compartmentalization of different steps in dedicated reactors, offers new possibility to integrate biocatalytic steps within a chemical cascade, often without the need to redesign the whole pathway. Here I will present a challenges we feel are still very much a hurdle in the field, and how we have approached them.

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