



Catalysis in Flow

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The presentation showcases our ‘Catalysis in Flow’ programme at Imperial College London, involving >12 years of collaborative work between Chemists and Chemical Engineers.

The aim of the programme is to demonstrate the advantages of utilising continuous flow technology to enhance the efficiency of heterogeneous catalytic reactions, in ways that cannot be achieved easily in conventional batch reactors.

The presentation is divided into three parts:

- (i) A general introduction to the concepts of flow chemistry, demonstrated with aerobic oxidation of alcohols;^[1]
- (ii) Development of sustainable catalytic processes;^[2]
- (iii) The design and implementation of a tandem flow system to examine catalyst leaching.^[3]

The overall message is to show how we can combine knowledge of chemistry and engineering, not only to design better and more efficient and sustainable processes, but also to gain better understanding of the underlying catalytic cycle, including mechanism, deactivation and leaching.

References

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