



## **CYCLE DE CONFÉRENCES DE CHIMIE**

*Avec le concours de : Université Clermont Auvergne  
SIGMA Clermont*

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**Jeudi 10 juin à 16 h**

En distanciel via TEAMS

**Uif HANEFELD**

Biokatalyse, Afdeling Biotechnologie, Technische Universiteit Delft, The Netherlands

### **Diastereoisomers and Chirality: Enzymes and Engineering in Action**

Ever since the first enantioselective synthesis in 1908 enzymes are central to preparing stereocentres enantioselectively. For this kinetically controlled step two 1,2 disconnections will be explored: the synthesis of cyanohydrins and of acyloins. The emphasis will be on both, enzyme and reaction engineering.

When further extending the number of stereocentres, the process can be either kinetically or thermodynamically controlled. This leads to unexpected results in the aldol reaction. But most importantly the observations of kinetic versus thermodynamic control that is textbook knowledge for the Diels-Alder-reaction, is equally applicable to diastereoselective catalysis in general.

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**Coordinateurs** : Katia GUERIN ☎ 33 473 407 567 courriel : [katia.araujo\\_da\\_silva@uca.fr](mailto:katia.araujo_da_silva@uca.fr)

Alain DEQUIDT ☎ 33 473 407 194 courriel : [alain.dequidt@uca.fr](mailto:alain.dequidt@uca.fr)

Institut de Chimie de Clermont-Ferrand (ICCF-UMR 6296)

Université Clermont Auvergne, 24, avenue Blaise Pascal, TSA 80026 63178 AUBIERE cedex-France