

**Catalysis at Johnson Matthey:
On the Cost Effective Use of Catalysis for Complex Synthesis**

Antonio Zanotti-Gerosa

Johnson Matthey, Cambridge, UK

Catalysis offers a great opportunity for cost-effective, sustainable routes to the complex synthetic targets of the fine chemicals, pharmaceutical, agro and F&F spaces. However, a number of hurdles must be overcome to achieve the most efficient processes, including optimization of catalyst loadings, catalyst commercial availability, catalyst recycling (when possible), understanding of the impact of reaction conditions and substrate purity on the reaction. The talk will focus on hydrogenation and transfer hydrogenation using homogeneous and heterogeneous catalysts. New research directions and opportunities associated with the use of achiral, highly active homogeneous catalysts will be discussed (e.g. ester hydrogenation).