

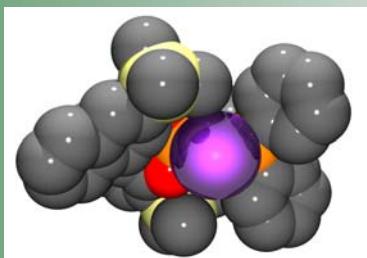
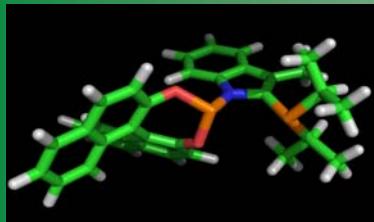


# Homogeneous and Supramolecular Catalysis

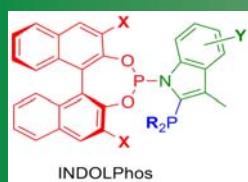
Joost NH Reek, Bas de Bruin and Jarl Ivar van der Vlugt

Homogeneous and Supramolecular Catalysis, Van 't Hoff Institute for Molecular Sciences,  
University of Amsterdam, Science Park 904, 1098 XH, Amsterdam

## Catalysis as technology for sustainable chemistry



Spectroscopic techniques  
HP-NMR, HP-IR, UV-Vis, CV, EPR, or Kinetics)



Asymmetric hydrogenation to access chiral intermediates



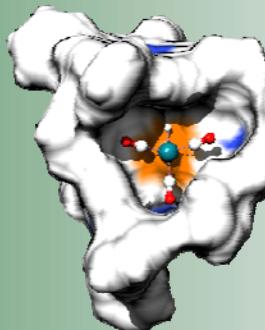
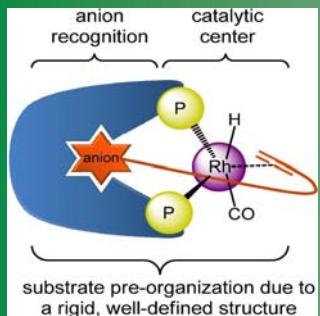
### Rational Ligand design

Unprecedented reactivity and selectivity

New technology to convert renewable feedstocks

Catalysis for green energy applications

### Supramolecular approaches



### Bio-inspired Catalysis

