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Research Interests: Homogeneous catalysis
Organometallic chemistry

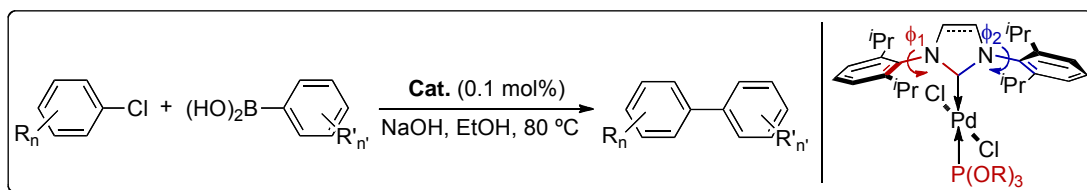
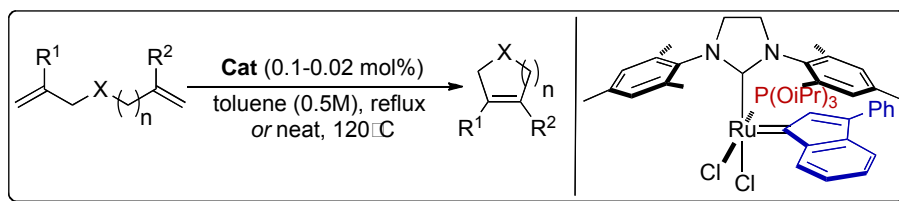


Our research interest mainly focuses on the development of *homogeneous catalytic systems* promoting organic reactions. Targeted applications are **pharmaceutical**, **environmental** and **cosmetic**.

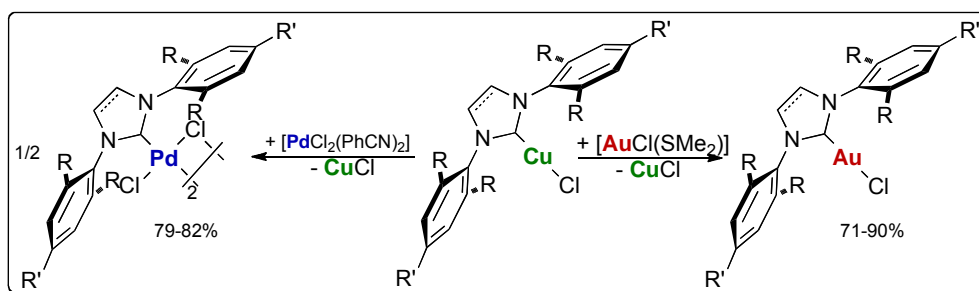
See group website: <http://ch-www.st-and.ac.uk/staff/cc/group/CSJ%20Cazin/Home.html>

We have generated novel catalyst composition exhibiting high thermal and reactivity characteristics. In the group, we target simple organometallic complexes for useful catalytic reactions. We make use of all modern synthetic methods and explore novel systems with an arsenal of physico-chemical techniques ranging from NMR to X-Ray diffraction studies

Examples of efficient systems that were recently developed by the group are given below.



The usefulness of catalysts is often associated with the cost of their synthesis. In this respect, we also work on synthetic methods for catalytically relevant complexes. An example is given below.



SELECTED RECENT PUBLICATIONS

Mixed N-Heterocyclic Carbene/Phosphite Ruthenium Complexes: Towards a New Generation of Olefin Metathesis Catalysts. X. Bantreil, T. E. Schmid, R. A. M. Randall, A. M. Z. Slawin, C. S. J. Cazin*, *Chem. Commun.* **2010**, 46, 7115–7117.

Mixed Phosphite/N-Heterocyclic Carbene Complexes: Synthesis, Characterization and Catalytic Studies. O. Diebolt, V. Jurčik, R. Correa da Costa, P. Braunstein, L. Cavallo, S. P. Nolan, A. M. Z. Slawin, C. S. J. Cazin*, *Organometallics* **2010**, 29, 1443-1450

Copper N-Heterocyclic Carbene (NHC) Complexes as Carbene Transfer Reagents. Marc R. L. Furst and Catherine S. J. Cazin*, *Chem. Commun.* **2010**, 46, 6924-6925.