Exploring Iridium Complexes; From Bond Activations to their Use as Catalysts in Asymmetric Hydroamination Reactions

The preparation and study of new organometallic iridium species has been a central part of my curriculum since first studying the properties of iridium-DMSO complexes during my doctoral studies. In this presentation, I will give an overview of discoveries that span almost two decades and include results from both my supervised and my independent career. The major emphasis will lie on recent work from my group where we are studying cationic $\text{[Ir(NHC)(COD)]}^+$ complexes (NHC = N-heterocyclic carbene) as catalysts in the (asymmetric) intramolecular hydroamination of unactivated aminoolefins.\(^1\)

Biography:

Reto Dorta studied chemistry at the University of Neuchatel and the University of Salerno. He joined Professor Georg Süss-Fink's group at the University of Neuchatel for his Diploma work (1997) and subsequently moved to the Weizmann Institute of Science (Israel), where he earned his doctoral degree under Professor David Milstein in 2002/2003. He then transferred to the University of New Orleans for a one-year postdoctoral stay with Professor Steven P. Nolan. Soon after joining Professor John E. Bercaw at the California Institute of Technology for a second postdoc, he was awarded an Alfred Werner Assistant Professorship and moved to the Organic Chemistry Institute at the University of Zürich in June 2005. In December 2011, he took up a position as Professor at the School of Chemistry and Biochemistry (now School of Molecular Sciences) at the University of Western Australia where he has been ever since.