



Quo Vadis Chemistry

Phosphines, carbenes and phosphorus cations with exceptional properties: New tools for chemical bond activation and catalysis



which will be delivered by

Professor Fabian Dielmann

from Leopold-Franzens-Universität
Innsbruck, Austria

on April 17, 2023 at 15:00

the Lecture Hall CH2 at the School of Chemistry, Faculty of Science, Hlavova 8

Ligand design is key to advances in materials science, coordination chemistry, and catalysis. Phosphines and N-heterocyclic carbenes are among the most versatile ligands in terms of tunability through structural variations and their success story continues to be driven by their growing structural diversity. We recently reported an approach to increase the electron donor properties of phosphines by attaching π -donor substituents. The resulting phosphines are powerful ligands in homogeneous catalysis and can activate small molecules. This lecture will focus on the recent developments towards the design and various applications of superbasic phosphines, highly electrophilic phosphorus cations and carbenes.

