



FACULTY OF SCIENCE
Charles University

School of Chemistry, Faculty of Science,
Charles University invites for the lecture

Quo Vadis Chemistry

News from Phosphorus in Low Coordination

From aromatic phosphorus heterocycles
to photochemical C-C bond activation reactions



which will be delivered by

Professor Christian Müller

Institute for Chemistry and Biochemistry,
Free University Berlin, Germany

on October 24, 2022 at 15:40

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

The most intriguing aspects of the current research in the field of low-coordinate phosphorus compounds reflect the fact that low-coordinate phosphorus compounds are rarely comparable with classical phosphines. In contrast, the isolobal relationship between a C-H group and a trivalent phosphorus atom is reflected in pronounced similarities between unsaturated hydrocarbons and low-coordinate organophosphorus compounds. This lecture will focus on the preparation of functionalized phosphabenzenes, modification of their electronic and steric properties, and unprecedented reactivities recently observed in our group (**A**). The second part will deal with the photochemical activation of the C(sp)-C(sp²) bond in Pt(0)- η^2 -aryl-phosphaalkyne complexes, that leads selectively to complexes of the type L_nPt(aryl)(CP). The oxidative addition reaction is a novel, clean, and atom-economic route toward reactive, terminal Pt(II)-cyaphido complexes (**B**).

