



FACULTY OF SCIENCE
Charles University

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

Quo Vadis Chemie

Catalytic Applications of Mn(I) and Fe(II) Complexes Involving E-H (E = H, C, Si, B) Bond Activation

which will be delivered by

Professor Karl Kirchner

Institute of Applied Synthetic Chemistry
Vienna University of Technology, Austria



on March 17, 2025 at 15:00

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

The utilization of base-metal catalysts is an emerging field in homogeneous catalysis. Among others, manganese-based complexes were proven to be highly competitive catalysts for (de)hydrogenation reactions. This lecture outlines the potential of Mn(I)- and Fe(II)-carbonyl alkyl and related complexes for the activation of non-polar and moderately polar E-H (E = H, C, Si, B) bonds and discloses our successful approach for the utilization of complexes in the field of homogeneous catalysis. Our investigations unveiled novel insights in reaction pathways of the hydrosilylation and hydroboration of alkenes and alkynes, hydrogenations of alkenes, alkynes, ketones and isomerization of alkenes.

