



FACULTY OF SCIENCE
Charles University

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

Quo Vadis Chemie

Stable N-Heterocyclic Carbenes with a 1,1'-Ferrocenediyl Backbone and Their Heavier Analogues



which will be delivered by

Professor Ulrich Siemeling

Institute of Chemistry,
University of Kassel, Germany

on October 23, 2023 at 15:40

in the Lecture Hall CH2 at the School of Chemistry, Faculty of Science, Hlavova 2030

We recently demonstrated that stable N-heterocyclic carbenes (NHCs) with a 1,1'-ferrocenediyl backbone can add ammonia, dichloromethane, methyl acrylate, *tert*-butyl isocyanide, and carbon monoxide under mild conditions. Such small-molecule activation reactions are typical of (alkyl)(amino)carbenes (CAACs), but were unprecedented for diaminocarbenes. In view of the surprising reactivity of our ferrocene-based NHCs, which is due to their ambiphilic nature, we surmised that their heavier analogues can also show unconventional chemical behaviour. This indeed turned out to be the case. Particularly interesting results were obtained with corresponding silylenes and plumbylenes.

