FACULTY OF SCIENCE
Charles University

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

Quo Vadis Chemie

Molecular Hydrides of Electropositive Metals

which will be delivered by

Professor Jun Okuda

Institute of Inorganic Chemistry,
RWTH Aachen University, Germany

on April 15, 2024 at 14:50

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

Dihydrogen has been recognized as a carbon-free energy carrier an a versatile reducing agent in synthesis such as hydrogenation of C=X double bonds (X = CR_2, NR, O). In contrast to the activation of H_2 by precious metals, electropositive metals form insoluble metal hydrides some of which act as reversible hydrogen storage materials. By using ligands derived from 1,4,7,10-tetraaza-cyclododecane, a number of structurally defined, molecular metal hydrides of Mg, Ca, Zn, lanthanides, Al and Ga have been prepared which are soluble in organic solvents. The synthesis of these compounds, their role in H_2 activation and use as hydride nucleophiles will be presented.