



Univerzita Karlova v Praze, Přírodovědecká fakulta

Katedra organické a jaderné chemie
zve všechny zájemce na přednášku z cyklu

Quo Vadis Chemie

Organometallic Ate Complexes



kterou přednese

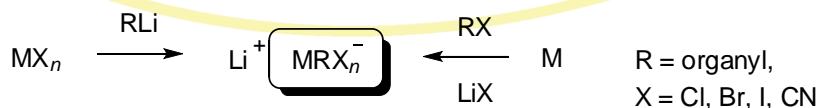
Dr. Konrad Koszinowski

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dne 18.5. 2010 v 10:00 hod.
v posluchárně CH2, v budově chemických kateder PŘF UK
Hlavova 8, Praha 2

Abstrakt:

Organometallic ate complexes are known as highly reactive intermediates, which readily undergo Michael-type additions, nucleophilic substitutions, or halogen-metal exchange reactions. Traditionally, these complexes have been generated by transmetalation of metal halides or cyanides with organolithium or Grignard reagents. We show that organometallic ate complexes may moreover form by spontaneous ionic disproportionation of neutral organometallics or by their complexation with lithium chloride. We use a combination of electrospray ionization mass spectrometry, electrical conductivity measurements, and NMR spectroscopy to characterize these ate complexes. In particular, we aim at determining their aggregation states and their ion-pairing behavior in different solvents. The thus obtained insight should be instrumental in the rational development and optimization of these important organometallic reagents.



transmetalation

M = Cu, Zn

LiCl-mediated metal insertion

M = Zn

