



Univerzita Karlova v Praze, Přírodovědecká fakulta

Sekce chemie PŘF UK v Praze
zve všechny zájemce na přednášku z cyklu

Quo Vadis Chemie

Palladium-Ligands Chemistry Exploiting Efficiently Chloroarenes and C-H Activation in C-C and C-X (X=O, S, N, F) bonds Formation



kterou přednese

Jean-Cyrille Hierso

Université de Bourgogne
Dijon

**dne 10.10.2016 v 15:00 hod.
v posluchárně CH2, v budově chemických kateder PŘF UK
Hlavova 8, Praha 2**

Polyphosphine ligands based on ferrocene platform have driven progress in applied, and fundamental homogeneous catalysis. Catalyst longevity and ultra-low catalyst loadings can be profitable to reach high turnover numbers in C–C couplings (high TONs). Such performances are based on original polyphosphine cooperative effects, and are now used to efficient methods for Pd-catalyzed C–N, C–O and C–S bond formation. Mechanisms in oxidative addition and reductive elimination to Pd (electroanalysis, kinetics, DFT modeling) have revealed net differences with traditional monophosphine ligands. C–H activation from palladium *N*-directing ligand chemistry has been also successfully used for direct C–F fluorination of demanding *N*-heterocyclic substrates.