



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

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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.