



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

Quo Vadis Chemie

Catalytic Enantioselective Synthesis of Planar-Chiral Transition-Metal Complexes



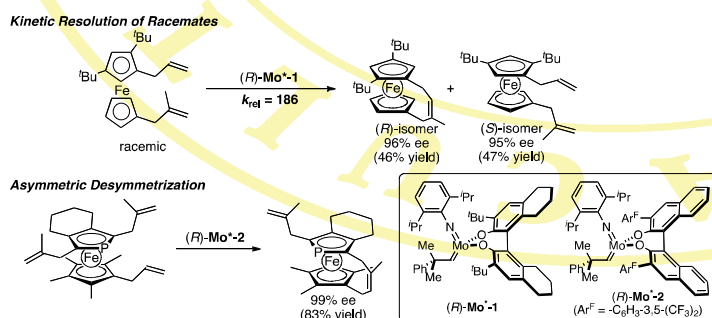
kterou přednese

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v posluchárně CH2, v budově chemických kateder PŘF UK
Hlavova 8, Praha 2



Abstrakt: Planar-chiral metallocenes are important chiral scaffolds in organic and organometallic chemistry. Their synthesis in optically active form, however, is still a challenging problem, and examples of catalytic asymmetric reactions of preparing scalemic planar chiral metallocenes are extremely rare. In this

presentation, novel asymmetric protocols of preparing planar-chiral metallocene derivatives based on the RCM reaction will be described. The first method is kinetic resolution of racemic planar-chiral 1,1'-diallylferrocene derivatives by asymmetric ring-closing metathesis (ARCM). The reaction proceeds efficiently to afford planar-chiral ferrocenes in high yield with excellent enantiomeric discrimination. The second method is asymmetric desymmetrization of the prochiral triallylphosphoferrocenes. The ARCM proceeds with excellent enantioselectivity and the planar-chiral phosphoferrocenes are obtained in up to 99% ee. Scope and limitation of these methods as well as asymmetric synthesis of planar-chiral (π -arene)chromium complexes by the similar method will be described.