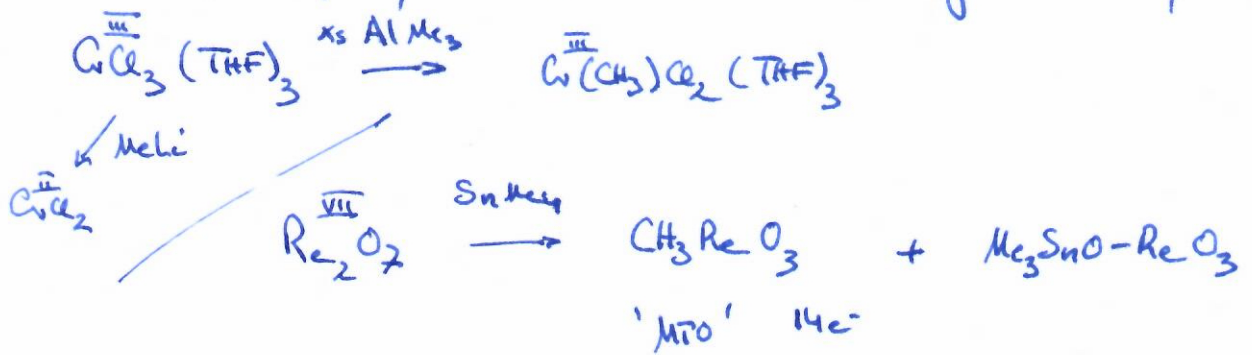


Synthesis of alkyls etc.

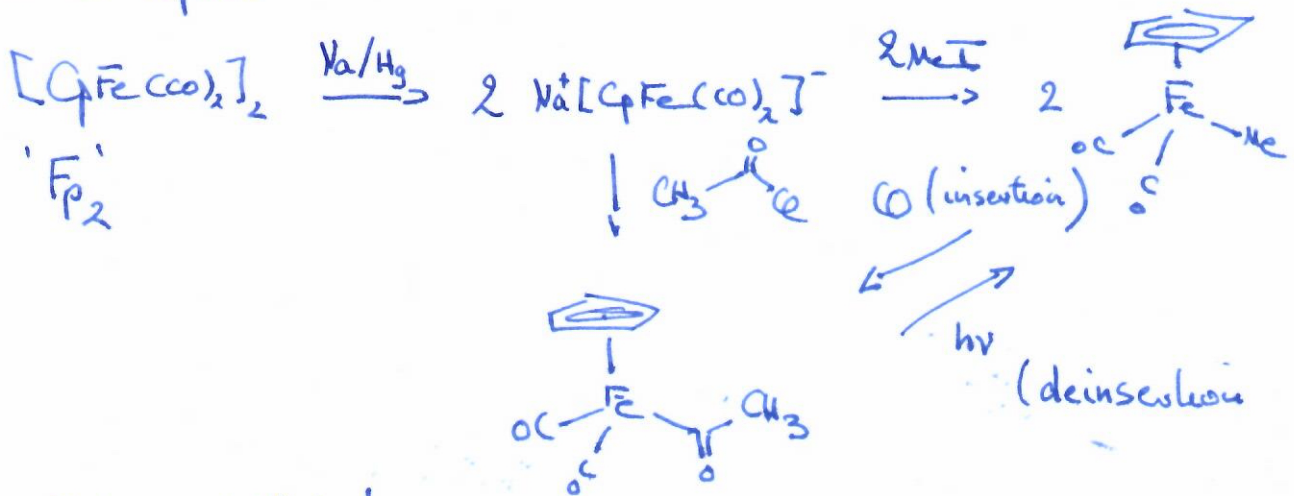
1) metathesis \overline{M} -halide + main group alkyl
(triflate, alkoxides, carboxylates...)



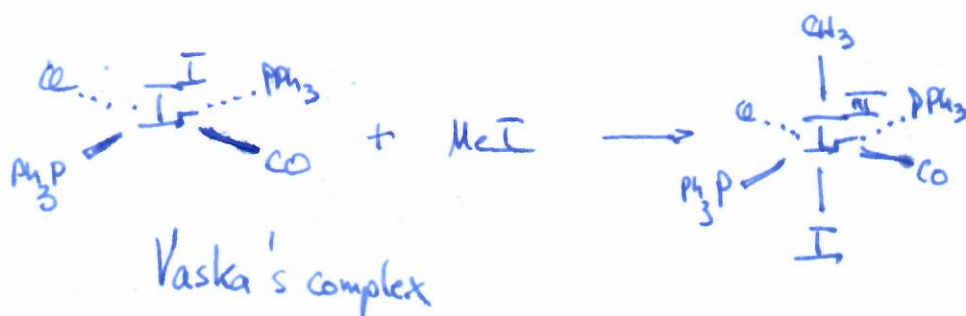
problems: reduction of M, use less electron rich alkyls (ZnR_2 , AlR_3 , SnR_4)



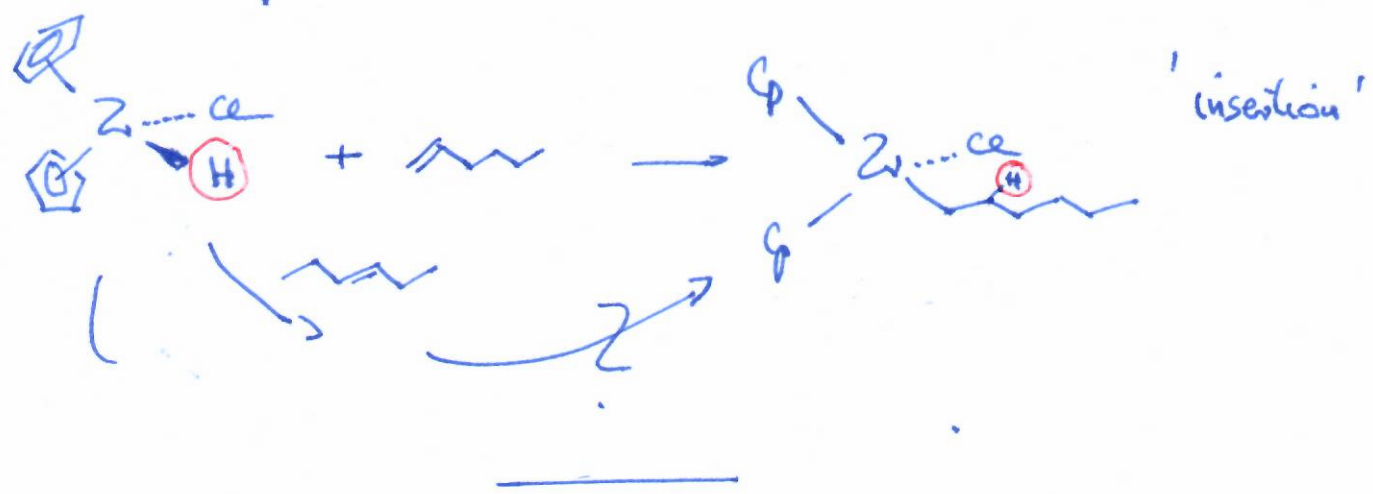
2) \overline{M} -nucleophile



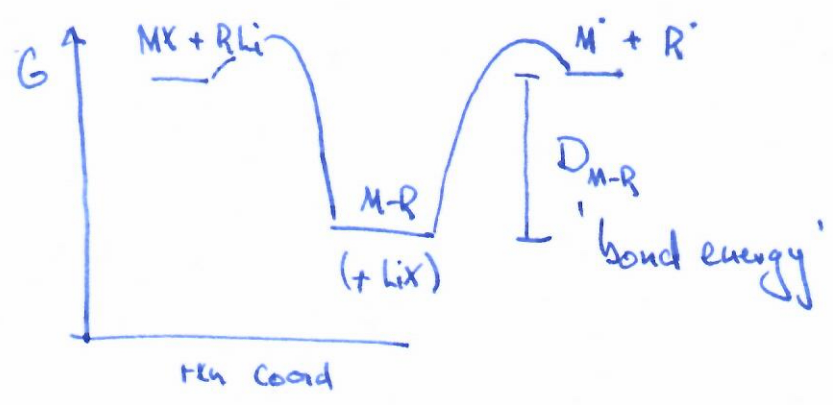
3) 'oxidative addition'



4) metal-hydride and alkene
'hydrozirconation'



stability of allyls
thermodynamic stab.



numbers (~ 30 - 80 kcal/mol)

	D_{M-R} [kcal/mol]
Cp_2TiPh_2	79
$TiBn_4$	62
$ZrBn_4$	74
$TaMe_5$	62
WMe_6	38
$(OC)_5NiMe$	36
$(OC)_5ReMe$	53
$CpPtMe_3$	38

Note: $TM-X$ bonds get stronger going down a group!
Very sensitive to steric crowding

Kinetic stability

