• Historical Background
  • Features of organometallic chemistry
  • Oxidation states
  • Periodic Trend
  • d-orbitals, Hapticity
  • Backbonding
  • Alkene, alkyne, phosphine
Basics of OMC

- Anil J. Elias

- Crabtree
- Elschenbroich
- Hartwig
18 electron Rules

* Ligand Substitution Reactions
  - Associative
  - Disassociative

* Oxidative Addition
  - Concerted
  - $SN_2$
  - Radical

* Reductive Elimination
* Migratory Insertion & elimination:
  - α MI
  - α ME
  - β MI
  - β ME

* α- abstraction and β-abs.

* 4-center Rxn

* [2+2] Rxn

* External ligand attack

* Reductive Coupling