

Structure Activity Relationships in Cross Coupling and C-H Activated borylation

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Cross coupling and C-H activation are the two most important 21st Century reactions in modern organic synthesis.¹⁻² Whether it is a Pd or Ir based organometallic complex, subtle changes on the structure of the catalyst can drastically affect the catalytic transformation. Three cases studies will be discussed during the talk to explain the phenomena.³⁻⁹ They are:

- i) Activities of high purity Pd(OAc)₂ vs commercial grades in organic synthesis
- ii) Activity difference of “L₁Pd(0)” catalysts vs in situ for challenging cross coupling.
- iii) Activity comparison of cationic vs neutral Ir catalysts for C-H activated borylation.

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