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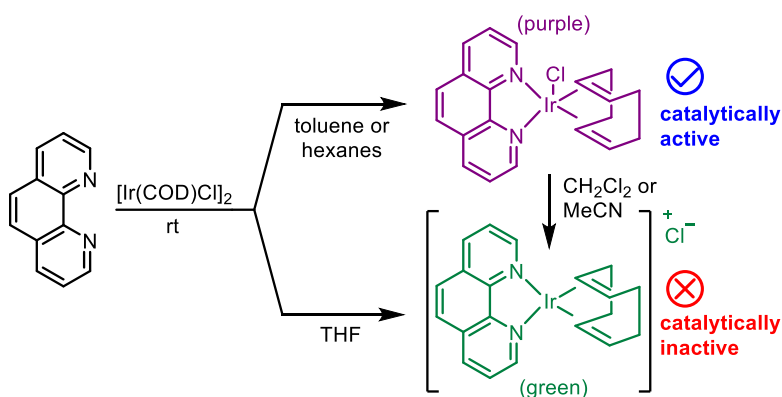
IL12 – Systematic Investigation of the Development of Iridium Precatalysts
for C–H Borylation

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Arylborationates have become a prominent class of organic reagents not only for the well known Suzuki-Miyaura coupling, but also as valuable synthons for delivering various functional groups.¹ Although the current commercial technology heavily relies on using either palladium-catalyzed borylation² or electrophilic borylation of stoichiometric Grignard reagents,³ iridium-catalyzed C–H borylation provides an atom-economical alternate pathway for creating these valuable starting materials that has been the source of significant investigation.¹ Despite the attractiveness of this method, hindering factors such as inconsistent reactivity, unstable and expensive precursors, and tedious pre-activation protocols can create complications limiting its utility. Our group recently disclosed a stable iridium precatalyst based on less expensive precursors to mitigate these issues and increase the practicality of this powerful class of C–H functionalization catalysts.⁴ The merits and limitations of these methods will be discussed in light of the alternate technologies.



References

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