Bis-cyclometallated iridium catalysts for ortho directed C-H borylation

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Over last few decades C-H activation has gained continuous scientific interest and over time has transformed from an academic curiosity to new practical applications in industry.[1] Cyclometallated complexes are emerging as a new class of catalysts for different C-H functionalizations, and they can be used for Late-stage functionalization (LSF) of complex molecules.[2]



Here we report the synthesis and application of novel bis-cyclometallated iridium catalysts. These catalysts can be prepared from different iridium precursors and are soluble in a wide range of organic solvents. The new complexes exhibit high air stability and directing group selectivity for *ortho* selective C-H borylation of wide range of different molecules including natural products and drug derivatives.

[1] Rita de Jesus, Kerstin Hiesinger, Manuel van Gemmeren, Angew. Chem. Int. Ed. **2023**, e202306659.

[2] Janis Mikelis Zakis, Tomas Smejkal, Joanna Wencel-Delord, Chem. Commun. 2022, 58, 483-490.