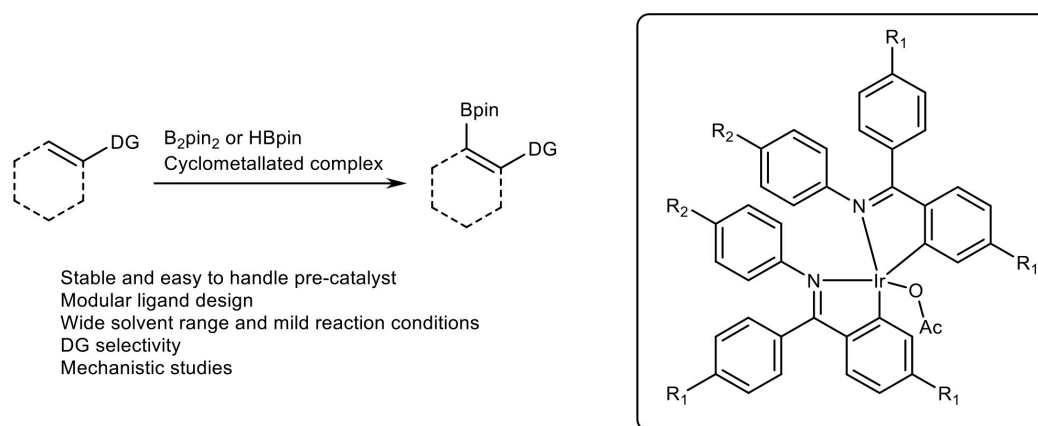


**Bis-cyclometallated iridium catalysts for ortho directed C-H borylation**J. M. Zakis<sup>1,3</sup>, A. Mesinis<sup>2</sup>, L. Ackermann<sup>2</sup>, J. Wencel-Delord<sup>1</sup>, T. Smejkal<sup>3</sup>

<sup>1</sup>Laboratoire d'Innovation Moléculaire et Applications (UMR CNRS 7042), Université de Strasbourg/Université de Haute-Alsace, ECPM, Strasbourg 67087, France, <sup>2</sup>Institut für Organische und Biomolekulare Chemie, Georg-August-Universität Göttingen, Tammannstraße 2, 37077 Göttingen, Germany, <sup>3</sup>Syngenta Crop Protection AG, Schaffhauserstrasse, CH-4332 Stein, Switzerland

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.