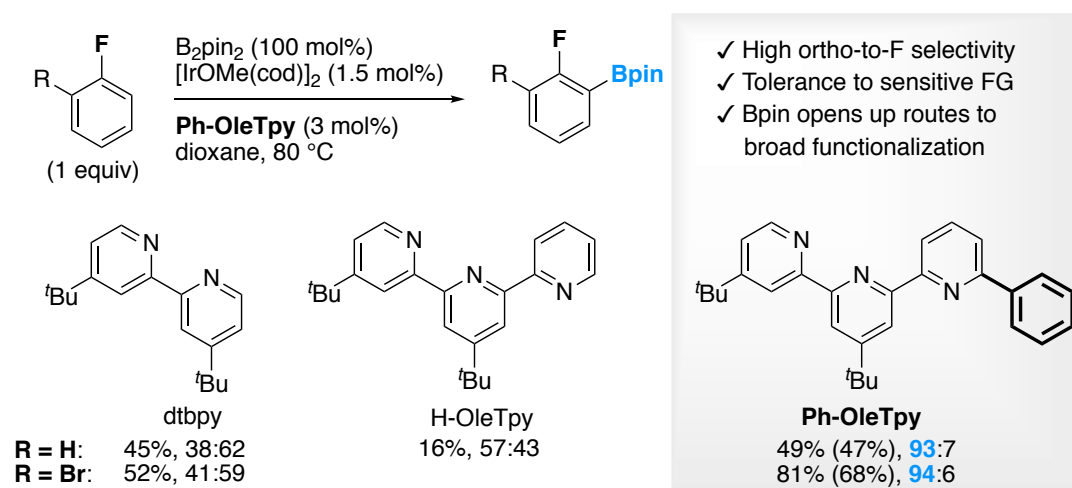


Ligand-Enabled Iridium-Catalyzed ortho Borylation of Fluoroarenes

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Fluoroarenes are ubiquitous molecular motifs for medicinal chemistry,¹ for the pesticide industry,² and recently as optoelectronic molecules for materials science.³ Late-stage diversification of these compounds is of paramount importance for the fine-tuning or radical switch of their properties. A synthetic method tailored for this purpose must functionalize a fluoroarene in a regioselective manner, must tolerate sensitive functional groups, and must allow incorporation of broad functionality. We report here that a newly designed terpyridine ligand in combination with an iridium salt catalyzes the borylation of a variety of fluoroarenes with high ortho selectivity as well as chemoselectivity.



The yields were estimated by ¹⁹F NMR or GC; isolated yields are shown in parentheses. The selectivity (ortho/meta+para) was determined by GC. A small amount of diborylated product was also obtained.

Scheme 1. Ortho-selective borylation of fluoroarenes enabled by **Ph-OleTpy** ligand.

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