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Highly Reactive, General and Long-Lived Catalysts for Palladium-Catalyzed Amination of Heteroaryl and Aryl Chlorides, Bromides, and Iodides: Scope and Structure–Activity Relationships
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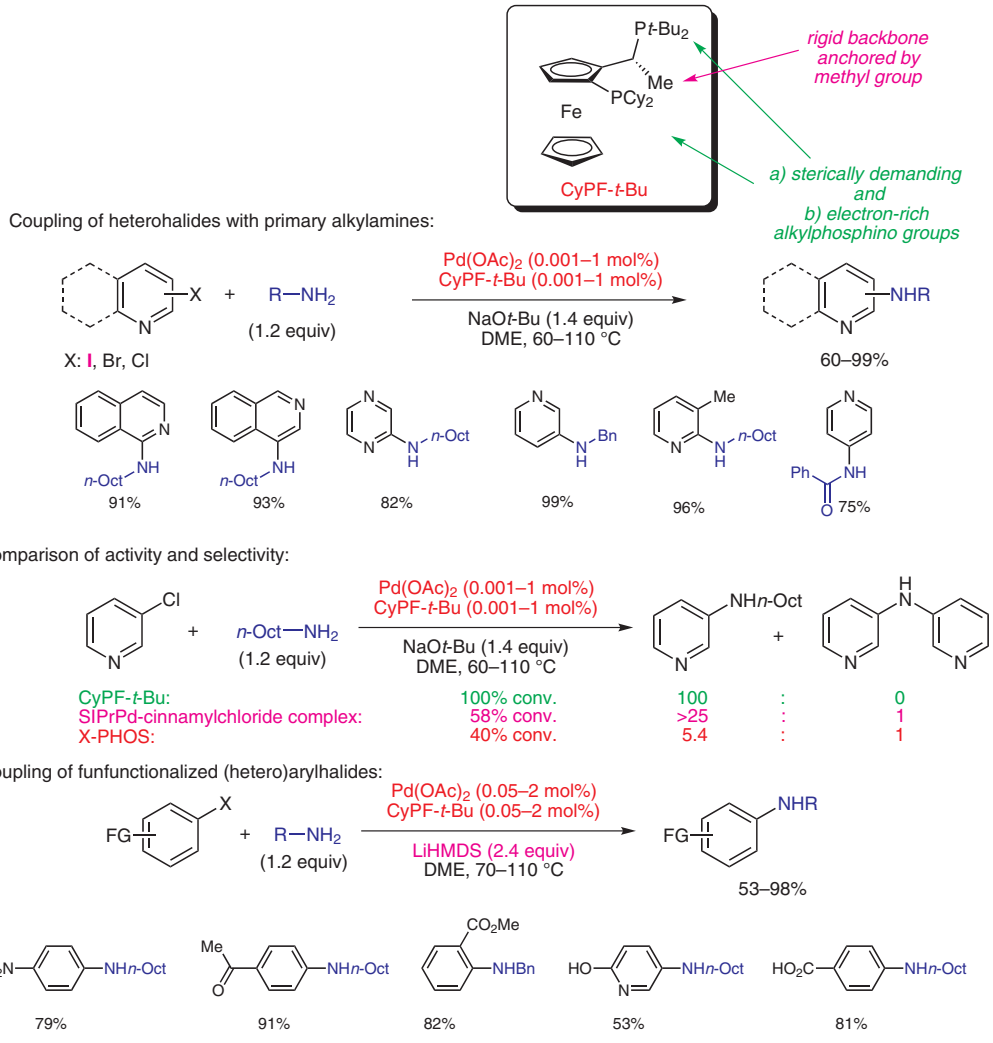
A Highly Efficient Catalyst for Pd-Catalyzed Amination of Aryl Halides



Significance: This article presents an extensive study on the selectivity, scope and structure–activity relations for the Pd-catalyzed amination of (het)aryl halides with primary amines. Aryl iodies, which are known to be more reluctant substrates to Pd-catalyzed amination, were also successfully converted.

Comment: CyPF-*t*-Bu is shown to be a selective catalyst for monoamination. Its effectiveness is explained by detailed studies on the ligand structure. Thus, the rigidity of the ferrocenyl backbone, the electron-donating character and the steric hindrance of the phosphine groups were identified as essential features of this selective amination catalyst.

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