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Design, Synthesis, and Validation of an Effective, Reusable Silicon-Base Transfer Agent for Room-Temperature Pd-Catalyzed Cross-Coupling Reactions of Aryl Chlorides with Readily Available Aryl Lithium Reagents
J. Am. Chem. Soc. **2016**, *138*, 1836–1839.

Palladium Cross-Couplings with a Silicon-Based Transfer Agent

Category

Metal-Mediated Synthesis

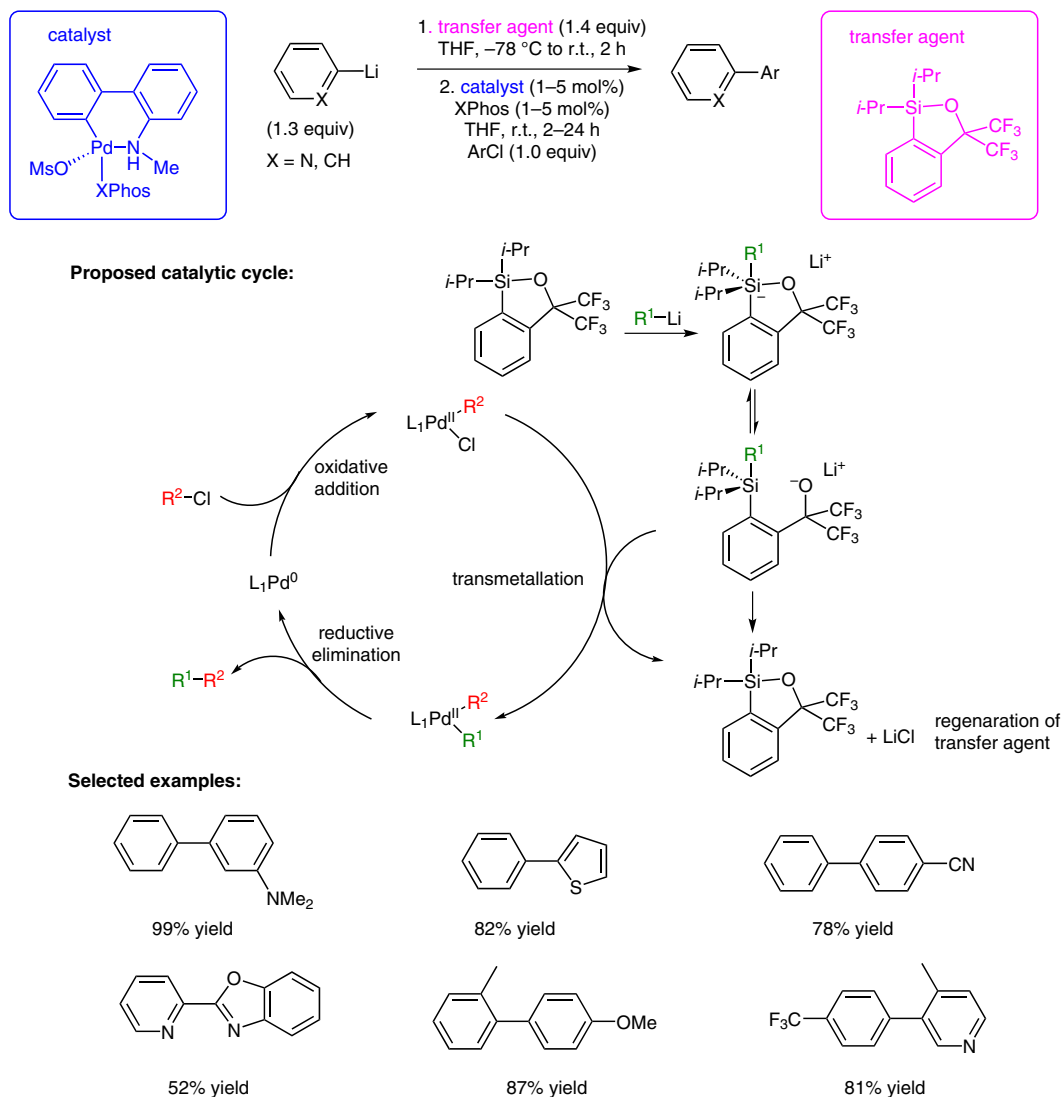
Key words

cross-coupling

palladium

silicon

Synfact
of the month



Significance: The authors present a reusable, bench-stable, silicon-based transfer agent for effective room-temperature palladium-catalyzed cross-couplings of aryl chlorides with aryl lithium reagents.

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Synfacts 2016, 12(4), 0397 Published online: 15.03.2016
DOI: 10.1055/s-0035-1561806; **Reg-No.:** P02316SF

Comment: DFT calculations outline the importance of the CF₃ groups of the transfer agent and support a σ -bond-metathesis mechanism during transmetalation.