D. MARTINEZ-SOLORIO, B. MELILLO, L. SANCHEZ, Y. LIANG, E. LAM, K. N. HOUK,*
 A. B. SMITH, III* (UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA AND UNIVERSITY OF
 CALIFORNIA, LOS ANGELES, USA)
 Design, Synthesis, and Validation of an Effective, Reusable Silicon-Base Transfer Agent for Room-Temperature Pd-
 Catalyzed Cross-Coupling Reactions of Aryl and Heteroaryl 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.

SYNFACTS Contributors: Paul Knochel, Marthe Ketels
 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 CF_3 groups of the transfer agent and support a σ -bond-metathesis mechanism during transmetalation.