

Sonogashira Cross-Coupling of Aryl Ammonium Salts by Selective C–N Activation Catalyzed by Air- and Moisture-Stable, Highly Active [Pd(NHC)(3-CF₃-An)Cl₂] (An = Aniline) Precatalysts

Autorzy

Peng Lei
Yibo Wang
Caixia Zhang
Yuge Hu
Juntao Feng
Zhiqing Ma
Xili Liu
Roman Szostak
Michał Szostak

Rok wydania

2022

Czasopismo

Organic Letters

Numer woluminu

24

Strony

6310-6315

DOI

10.1021/acs.orglett.2c02534

Kolekcja

Naukowa

Język

Angielski

Streszczenie

We report the Sonogashira cross-coupling of aryl ammonium salts catalyzed by air- and moisture-stable [Pd(NHC)(3-CF₃-An)Cl₂] (An = aniline). This highly active Pd(II)–NHC complex features broad scope and excellent C–N activation selectivity in the challenging alkynylation cross-coupling of aryl ammonium salts. Full structural characterization and computational studies demonstrate the effect of pyridine to aniline replacement as highly effective stabilizing ancillary ligand in well-defined Pd(II)–NHCs. Considering the high reactivity and the recent commercialization of [Pd(NHC)(3-CF₃-An)Cl₂] (Millipore Sigma, no. 915165), this catalyst represents an attractive approach to the activation of C–N bonds of broad synthetic interest.

Słowa kluczowe

Catalysts, Cations, Cross coupling reaction, Hydrocarbons, Salts

Adres publiczny

<http://dx.doi.org/10.1021/acs.orglett.2c02534>

Strona internetowa wydawcy

<https://www.acs.org/content/acs/en.html>

Artykuł

Plik został wygenerowany dnia 2026-08-21 21:54:43

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/srAqj0T>.