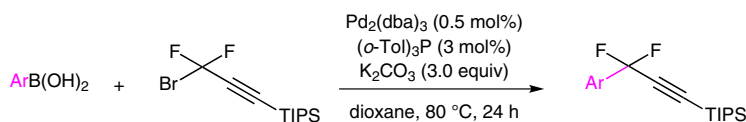


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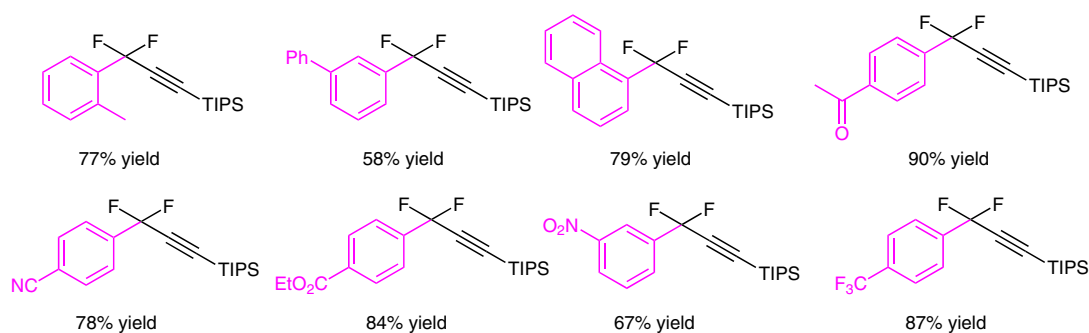
Synthesis of α,α -Difluoromethylene Alkynes by Palladium-Catalyzed *gem*-Difluoropropargylation of Aryl and Alkenyl Boron Reagents

Angew. Chem. Int. Ed. **2014**, *53*, 10457–10461.

Catalytic *gem*-Difluoropropargylation Using Aryl and Alkenyl Boron Reagents



Selected examples:



Significance: The authors report the first palladium-catalyzed *gem*-difluoropropargylation of organoboron reagents using *gem*-difluoropropargyl bromides. A wide range of novel molecules with potential use as building blocks in organic synthesis were prepared. The reaction proceeds with high regioselectivity, broad substrate scope, and excellent functional group compatibility.

Comment: Whereas in previous reports special phosphine ligands with large bite angles or very bulky substituents needed to be applied, now a simple ligand (*o*-Tol)₃P can be used. The late-stage introduction of the fluoro substituents is suitable for applications in the synthesis of complex molecules.

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Category

Metal-Mediated
Synthesis

Key words

palladium
cross-coupling
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