D. A. WATSON, M. SU, G. TEVEROVSKIY, Y. ZHANG, J. GARCÍA-FORTANET, T. KINZEL, S. L. BUCHWALD* (MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, USA)
 Formation of ArF from LPdAr(F): Catalytic Conversion of Aryl Triflates to Aryl Fluorides
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Palladium-Catalyzed Conversion of Aryl Triflates to Aryl Fluorides

R = Alk, Ar, ketones, esters, amines, ethers, nitro

up to 85% yield

Selected examples:

Significance: The biaryl phosphine ligand *t*-Bu-BrettPhos in combination with [(cinnamyl)PdCl]₂ is shown to catalyze the fluorination of aromatic and heteroaromatic triflates using CsF as fluorine source. This reaction proceeds under relatively mild conditions and with high functional group tolerance.

Comment: In a few cases, regioisomeric products are observed, but the overall yields remain high. The success of the reaction crucially depends on the sterically demanding *t*-BuBrettPhos ligand, since it prevents the formation of dimeric [LPdAr(F)]₂, but also promotes reductive elimination of the Ar-F bond due to its large size. This method can be expected to be applicable for the preparation of biologically active aryl fluorides.

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