V. BIZET, G. M. BORRAJO-CALLEJA, C. BESNARD, C. MAZET* (UNIVERSITY OF GENEVA, SWITZERLAND)

Direct Access to Furoindolines by Palladium-Catalyzed Intermolecular Carboamination *ACS Catal.* **2016**. *6*. 7183–7187.

Intermolecular Carboamination Catalyzed by Palladium

Significance: As part of the family of indole alkaloids, furoindoline structures represent a recurrent motif in many biologically active compounds and pharmaceuticals. The authors capitalized on their previous palladium-catalyzed stereoselective intermolecular carboetherification of dihydrofuranes for the development of a novel palladium-catalyzed *syn*-carboamination. In addition to the high levels of diastereoselectivity obtained, the authors present preliminary results toward the development of an enantioselective version of the reaction.

 SYNFACTS Contributors: Mark Lautens, Ivan Franzoni

 Synfacts 2016, 12(12), 1257
 Published online: 17.11.2016

 DOI: 10.1055/s-0036-1589703; Reg-No.: L13416SF

Comment: After careful optimization of the reaction conditions, mesyl-protected 2-bromo anilines were reacted with an excess of dihydrofuran and dihydrofuran derivatives in the presence of [Pd₂(dba)₃] and CPhos to afford the corresponding furoindoline products in moderate to good yields and good to excellent diastereoselectivities. Preliminary studies toward the development of an enantioselective version of the reaction are exemplified by the six examples reported (20–70% yield, 63–73% ee).

Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

palladium catalysis furoindolines carboamination

intermolecular reaction

