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IL17 – Regioselectivity and Functional Group Tolerance in Pd Catalyzed Direct Arylation of (Hetero)Aromatics

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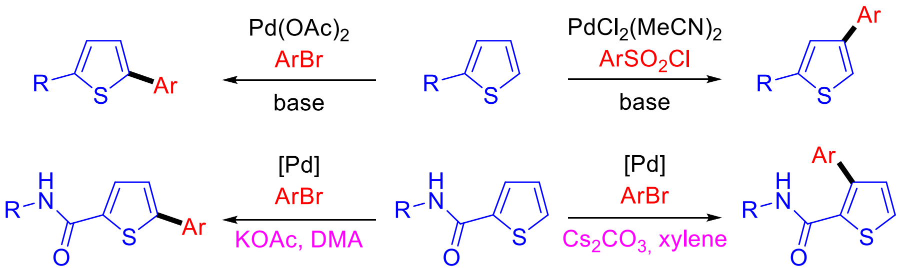
In recent years, Pd-catalysed direct arylation of heteroaromatics has become a popular method for generating carbon-carbon bonds.[1,2] In many cases, such couplings can be performed using as little as 0.1-0.01 mol% of $Pd(OAc)_2$ as catalyst precursor without phosphine ligand.[3] Moreover, a wide variety of substituents on heteroaromatics are tolerated. In general α-arylations of heteroaromatics such as furans, (benzo)thiophenes or pyrroles are favoured. However, the regioselectivity of such arylation reactions can be modified by the heterocycle substituents and also by the nature of the coupling partner, allowing either a better control or even a drastic change in the regioselectivity of such arylations.[4-7] We will ouline some of the recent developments concerning the control of the regioselectivity and the functional group tolerance of such direct arylations.



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