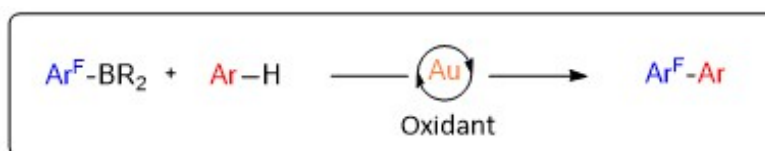


**Gold-Catalyzed Oxidative C-H Arylation with Organoboron Reagents**A. Genoux<sup>1</sup>, M. Hofer<sup>1</sup>, R. Kumar<sup>1</sup>, C. Nevado<sup>1</sup><sup>1</sup>University of Zurich

Direct C(sp<sup>2</sup>)-H functionalization/arylation has attracted increasing interest since the substrates do not need to be functionalized in contrast to classical cross-coupling reactions.<sup>1</sup> Despite significant progress,<sup>2</sup> multiple challenges including low reactivity, lack of selectivity in the activation of an specific C(sp<sup>2</sup>)-H bonds and formation of homocoupling products (Ar<sup>1</sup>Ar<sup>1</sup>, Ar<sup>2</sup>Ar<sup>2</sup>) are still difficult to master.<sup>3</sup> Herein, we report an efficient synthesis of biaryl compounds through a gold-catalyzed oxidative cross-coupling of arenes with strong electron-deprived aryl boronates. Non-symmetric biaryls can be synthesized with high levels of regio- and chemoselectivity under additives and directing groups-free conditions.<sup>4</sup> This methodology shows orthogonal reactivity and complementary scope with respect to already existing methods.<sup>5</sup>



$\text{Ar}^{\text{F}}$ : Highly electron deficient  
 $\text{Ar}$ : Non-activated

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