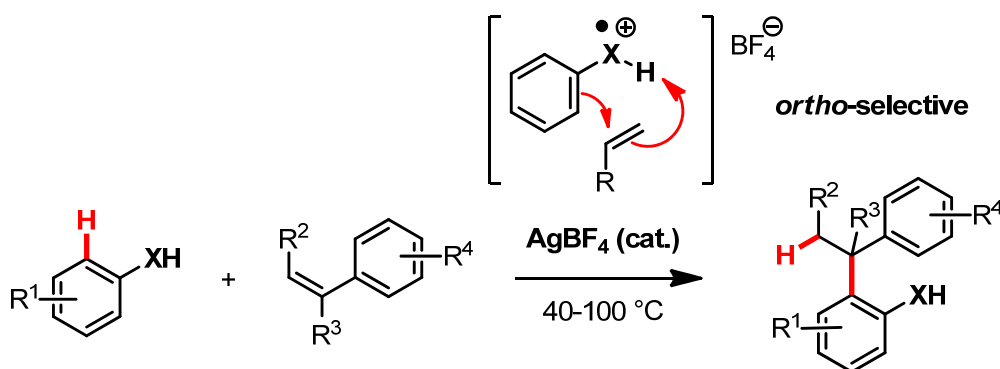


ELECTRON-HOLE CATALYZED *ORTHO*-HYDROARYLATION

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Modern hydroarylation methods are increasingly popular to construct C—C bonds. Recently, using tris(perfluorophenyl)borane as a Lewis acid to construct these motives has become a very powerful tool (e.g. for hydroarylation of phenols) [1]. Beyond Lewis acid catalysis, this work describes the generation of an electron-hole by a catalytic oxidation step with AgBF_4 , which catalyses the hydroarylation of phenothiazines, diarylamines, and phenols (Scheme 1) [2]. This leads to mild reaction conditions and thus to a broad substrate scope with excellent *ortho*-selectivity.



Scheme 1: Electron-hole catalyzed hydroarylation, initiated by AgBF_4 . [2]

[1] a) J. N. Bentley, C. B. Caputo, *Organometallics* **2018**, 37, 3654; b) G. Wang, L. Gao, H. Chen, X. Liu, J. Cao, S. Chen, X. Cheng, S. Li, *Angew. Chem. Int. Ed.* **2019**, 58, 1694. For a review, see also: c) Z. Huang, J.-P. Lumb, *ACS Catal.* **2019**, 9, 521.

[2] Submitted.