Formal α-Arylation of Ketones Enabled by Vinyl Cation Stabilization

**Significance:** Maulide and co-workers report a Brønsted acid catalyzed formal arylation of ketones to obtain α-silyl α'-aryl ketones in good to excellent yields. The vinyl cation formed as the intermediate is stabilized by the β-silicon effect and is further engaged by the sulfoxide to yield the products after a 3,3-sigmatropic rearrangement. This reaction tolerates several functional groups and nonsymmetric disulfoxides. Furthermore, terminal and internal alkynes can be transformed and, due to the stabilization of the cation, the latter case results in only one regioisomer.

**Comment:** The authors lifted the limitations of reactivity and regioselectivity in the arylation of alkynes by stabilizing the vinyl cation through an adjacent silicon group. In contrast to previously reported transformations, milder reaction conditions can be applied and a wider range of functional groups is tolerated. The stabilization of the vinyl cation gives rise also to the regioselective transformation of internal alkynes. Furthermore, the authors showed by subsequent modifications that in situ desilylation, removal of the arylsulfonyl moiety, and functionalization of the α-positions of the ketone are possible. This reaction could be further improved by the development of an asymmetric variant, for example by using enantiopure sulfoxides.