Regio- and stereoselective hydrometallation of fluorinated alkynes

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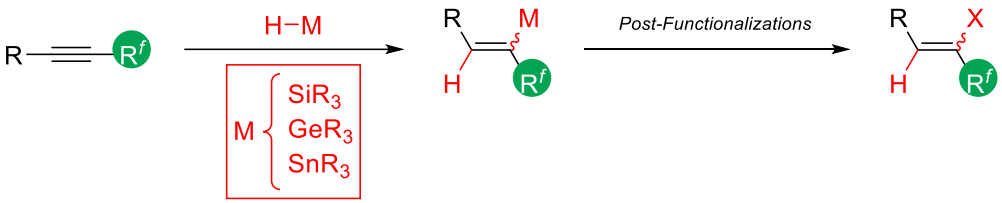

Nowadays organofluorine chemistry plays a crucial role in medicine and agriculture with nearly 20% of marketed drugs and 50% of agrochemicals containing at least one fluorine atom.[1] Fluorinated alkynes are modular organic building blocks where the electron-withdrawing properties of fluorinated motifs R^f will strongly polarize the C≡C bond. Our group developed several strategies to performed regiodivergent hydrometallation of polarized alkynes, mainly controlled by the reaction conditions but also thanks to the polarization of the alkyne.[2] On this poster are presented efficient methods to perform fully regio- and stereoselective hydrometallation of fluorinated alkynes with crystallogens (Si, Ge, Sn) together with further post-functionalizations.

References :
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[2] a) V. Debrauwer, A. Turlik, L. Rummler, A. Prescimone, N. Blanchard, K. N. Houk, V. Bizet, *J. Am. Chem. Soc.* **2020**, *142*, 11153-11164 [10.1021/jacs.0c03556]; b) L. Rummler, M. Abd El Sater, N. Blanchard, V. Bizet, **2023** *submitted*.