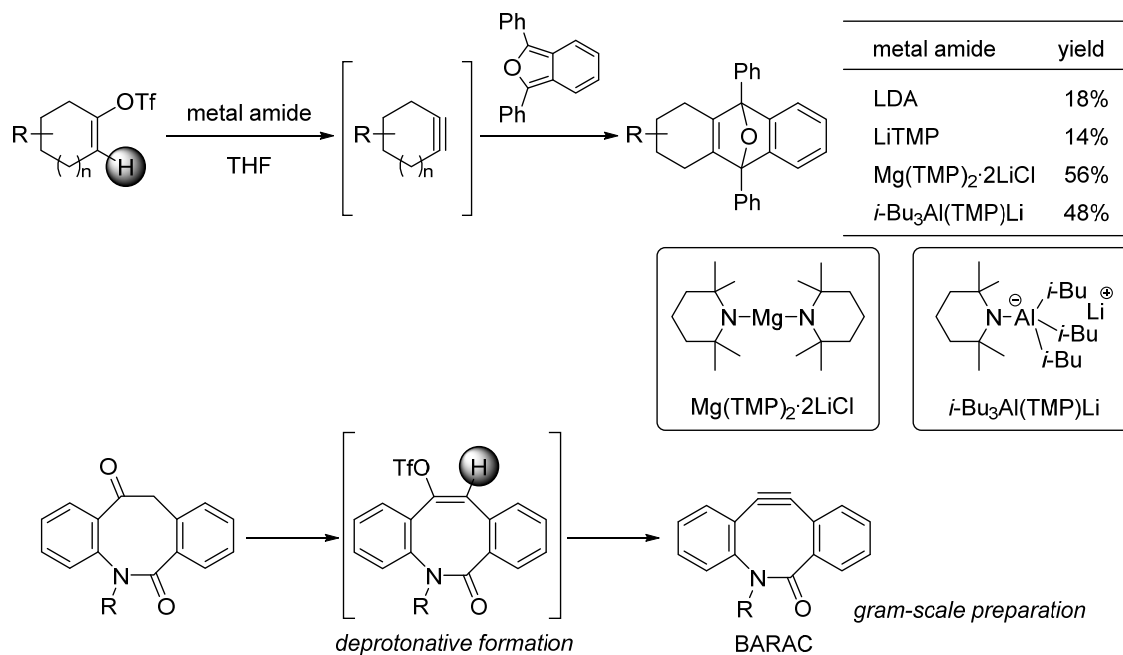


## DEPROTONATIVE GENERATION OF CYCLOALKYNES USING METAL AMIDES

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Medium-sized cycloalkynes show high reactivity and various reaction modes due to their strained carbon-carbon triple bond.[1] However, these species are unstable and the methods for generation of cycloalkynes are quite limited. We recently developed the method for deprotonative generation of cycloalkynes from enol triflates using magnesium bisamides[2] and aluminate bases[3], enabling rapid access to the six-, seven-, and eight-membered cycloalkynes. We then applied this method to construct the BARAC (biarylazacyclooctynone) skeleton, which is useful for the copper-free click reaction. Our deprotonative method provided BARAC derivatives from enol triflates on a gram scale. In the presentation, we will show the effects of the amide bases and several examples of cycloaddition of the cycloalkynes.



[1] (a) Hoffmann, R. W. in *Dehydrobenzene and Cycloalkynes*, Academic Press, New York, 1967, pp. 317. (b) Yoshida, S.; Hosoya, T. *Chem. Lett.* **2015**, *44*, 1450.

[2] Hioki, Y.; Okano, K.; Mori, A. *Chem. Commun.* **2017**, *53*, 2614.

[3] Hioki, Y.; Yukioka, T.; Okano, K.; Mori, A. *Asian J. Org. Chem.* **2018**, *7*, 1298.