

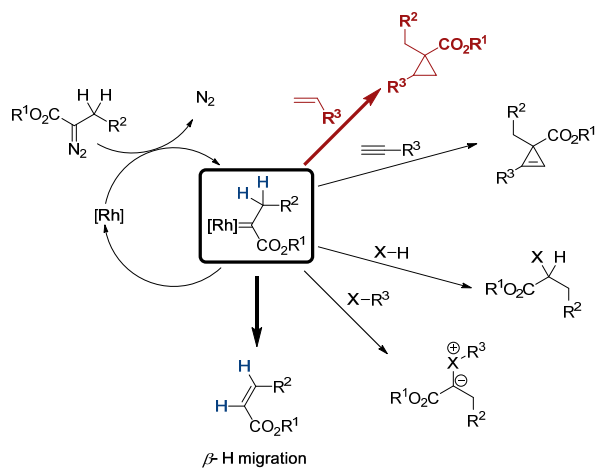
RHODIUM CATALYZED CYCLOPROPANATION WITH α -ALKYL- α -DIAZO ESTERS

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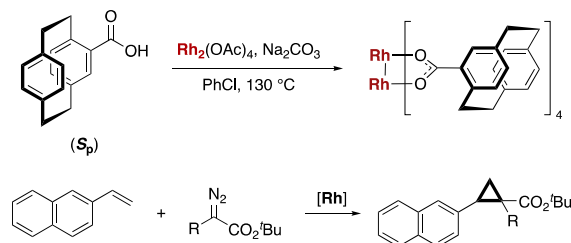
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Transition metal catalyzed decomposition of diazo compounds offers an easy, scalable, and versatile tool to access cyclopropanes.^[1] Even though, rhodium carboxylate complexes are the most attractive catalysts in terms of efficiency and accessibility for the construction of cyclopropane and cyclopropene rings, a major limitation remains their lack of selectivity over β -hydride migration.^[2]



[2.2]Paracyclophane carboxylic acid and derivatives thereof are synthesized. The corresponding rhodium paddlewheel complex is applied in the cyclopropanation reaction of terminal, α , α -, and α , β -disubstituted alkenes with α -alkyl- α -diazo esters. The unique bulkiness of [2.2]paracyclophane allows for a chemoselective high yielding cyclopropanation to occur at room temperature, while its inherent planar chirality is currently investigated in enantioselective cyclopropanation reactions.



[1] C. Ebner, E. M. Carreira, *Chem. Rev.* **2017**, *117*, 11651-11679.

[2] T. L. Sunderland, J. F. Berry, *Dalton Trans.* **2016**, *45*, 50-55.