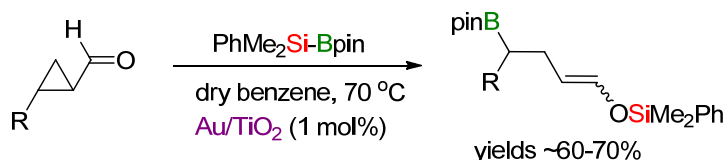


# GOLD NANOPARTICLE-CATALYZED SILABORATION OF CYCLOPROPYL ALDEHYDES FORMING REARRANGED SILYLOXY BORONATES

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We have previously reported that aryl aldehydes and acetophenones undergo silylative pinacol-type reductive dimerization in their reaction with silylborane pinB-SiMe<sub>2</sub>Ph (pin: pinacolato) catalyzed by supported Au nanoparticles on TiO<sub>2</sub>. It had been established that the process involves the formation of intermediate aryl silyloxy radicals, which then dimerize through a chain process.[1] In this study we present the Au nanoparticle-catalyzed reaction between cyclopropyl aldehydes and pinB-SiMe<sub>2</sub>Ph which leads to rearranged enol silyloxy boronates.[2] This mode of reactivity is unprecedented, and product formation is ascribed to the ring opening rearrangement of the intermediate  $\alpha$ -cyclopropyl silyloxy radicals.



[1] Kidonakis, M.; Mullaj, A.; Stratakis, M. *J. Org. Chem.* **2018**, *83*, 15553.

[2] Kotzabasaki, V.; Kidonakis, M.; Vasilikogiannaki, E.; Stratakis, M. *To be submitted*.