

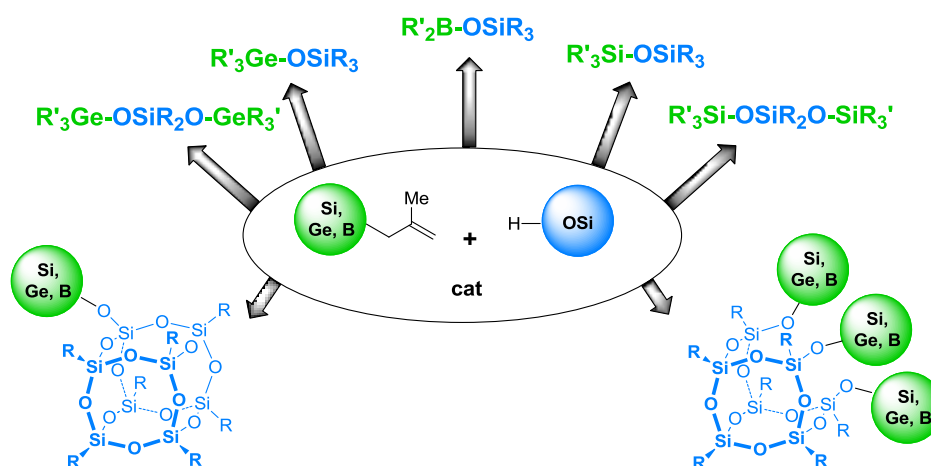
Synthesis of organosilicon compounds catalyzed by scandium(III) trifluoromethanesulfonate

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Lewis acids have been used in various synthetic applications due to their high catalytic activity and selectivity in several transformations, such as synthesis of organometallic products and polymers. Among the compounds that have acidic properties, metal trifluoromethanesulfonates seem to be extremely attractive species. Their high catalytic activity, low moisture sensitivity and the possibility of their further recovery from the reaction mixture are the major advantages of this compounds in relation to conventional Lewis acids like halides of aluminum, boron, titanium or tin.

The aim of the presentation is to demonstrate our highly efficient and selective catalytic methods for the synthesis of functionalized silicon compounds *via* the coupling reaction of silanols with allyl-substituted organometallic compounds catalyzed by scandium(III) trifluoromethanesulfonate ($\text{Sc}(\text{OTf})_3$)^[1-3]. This methodology opens up a possibility to synthesis a large number of silicon compounds with a variety of functional groups, with excellent yields, under mild conditions (rt, air atmosphere) and with evolution of no reactive by-products.



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