

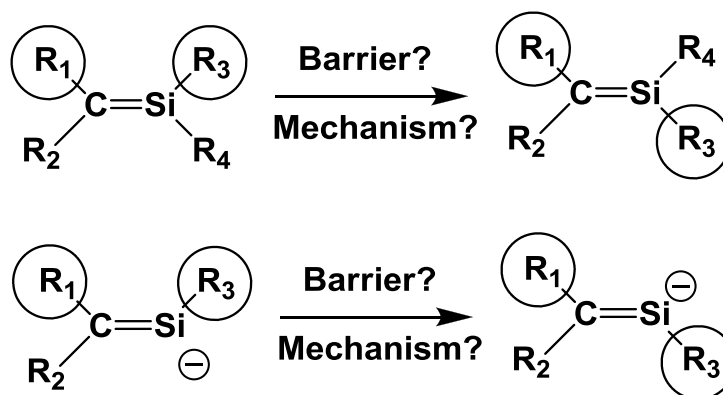
Isomerization Mechanisms Around E=E' (E,E'=C,Si) Bonds. Experiment and Theory

Yitzhak Apeloig*, Arseni Kostenko, Daniel Pinchuk, Lieby Zborovsky, D. Bravo-Zhivotovskii

Schulich Department of Chemistry and the Lise Meitner Minerva Center for Computational Chemistry, Technion- Israel Institute of Technology, Haifa 32000, Israel
E-mail: apeloig@technion.ac.il

The mechanism of isomerization around C=C bonds has been studied extensively both experimentally and theoretically. In contrast, relatively little is known about the isomerization mechanisms around E=E' (E,E'=C,Si) bonds.

In this lecture we discuss isomerization mechanisms around E=E' (E,E'=C,Si) bonds, for example in silenes (RR'C=SiRR') and in silylenyl anions (RR'C=SiR⁻) and radicals, recently synthesized in our group [1]. The experimental and computational studies reveal interesting differences between the isomerization mechanism in alkenes and vinyl anions and radicals and their heavier congeners.



- [1] D. Pinchuk, J. Mathew, A. Kaushansky, D. Bravo-Zhivotovskii, Y. Apeloig, *Angew. Chem., Int. Ed.*, **55**, 10258-10262 (2016)