

Acyclic three-coordinate silanones: design, isolation and reactivity

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Over the past several decades, silicon analogues of low-coordinate organic compounds (alkenes, alkynes, ketones, aldehydes, esters, etc.) have fascinated chemists both in the field of organic and inorganic chemistry because, despite their formal isovalency, they often have unique chemical features. For several years, we have been interested in utilizing N-heterocyclic imines (NHIs) to stabilize low-valent main group compounds (B, Al, Ge, Sn, etc.).^[1] Recently, we reported related silicon compounds with NHI ligand. For example, isolation of iminosilylene,^[2] iminosilylium ions,^[3] iminosilepin,^[4] iminodisilene,^[5] and iminosilanones^[6] have been accomplished. This presentation will focus on the synthesis and structure of novel acyclic three-coordinate iminosilanones and their reactivity.^[6]

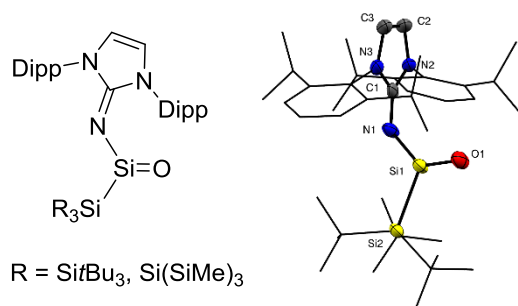


Figure 1. Structure of iminosilylsilanones.

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