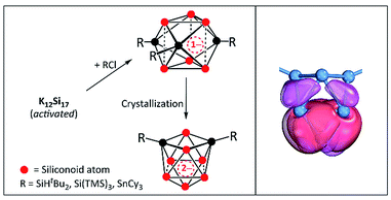
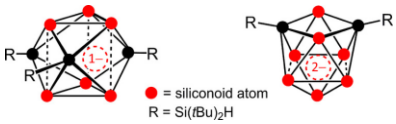
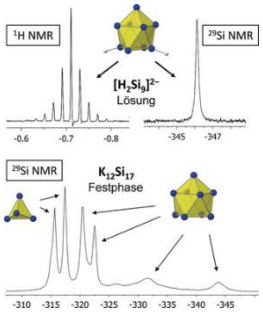
Soluble Silicon Clusters



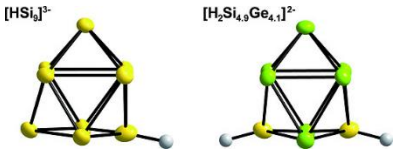
Silicon clusters with six and seven unsubstituted vertices via a two-step reaction from elemental silicon
L. J. Schiegerl, A. J. Karttunen, W. Klein, T. F. Fässler
Chem. Sci. 10 (2019), 9130–9139 (DOI: 10.1039/C9SC03324F)



Anionic Siliconoids from Zintl Phases: $R_3Si_9^-$ with Six and $R_2Si_9^{2-}$ with Seven Unsubstituted Exposed Silicon Cluster Atoms (R = $Si(tBu)_2H$)
L. J. Schiegerl, A. J. Karttunen, W. Klein, T. F. Fässler
Chem. Eur. J. 24 (2018), 19171–19174 (DOI: 10.1002/chem.201805442)



Charged Si_9 Clusters in Neat Solids and the Detection of $[H_2Si_9]^{2-}$ in Solution: A Combined NMR, Raman, Mass Spectrometric, and Quantum Chemical Investigation
L. J. Schiegerl, A. J. Karttunen, J. Tillmann, S. Geier, G. Raudaschl-Sieber, M. Waibel, T. F. Fässler
Angew. Chem. 130 *(2018),* 13132–13137 (DOI: 10.1002/ange.201804756)
Angew. Chem. Int. Ed. 57 *(2018),* 12950–12955
(DOI: 10.1002/anie.201804756)



Silicon Containing Nine Atom Clusters from Liquid Ammonia Solution: Crystal Structures of the First Protonated Clusters $[HSi_9]^{3-}$ and $[H_2\{Si/Ge\}_9]^{2-}$
T. Henneberger, W. Klein, T. F. Fässler
Z. Anorg. Allg. Chem. 644 (2018), 1018–1027 (DOI: 10.1002/zaac.201800227)