

Si History

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Before 1981, multiple bonds to elements outside the first row of the periodic table were not thought to be possible. This belief became enshrined in the "double bond rule". However, in 1981, two adjacent presentations at the North American Silicon Symposium in Durham NC, reported stable compounds containing Si=C (**1**)¹ and Si=Si bonds (**2**).² These discoveries immediately led to the synthesis of many new types of multiply-bonded silicon compounds. Then, in the mid 1990's, the first stable divalent silicon compounds (silylenes, **3**)³ were described, opening another new area of silicon chemistry. This talk presents the history of these exciting discoveries.

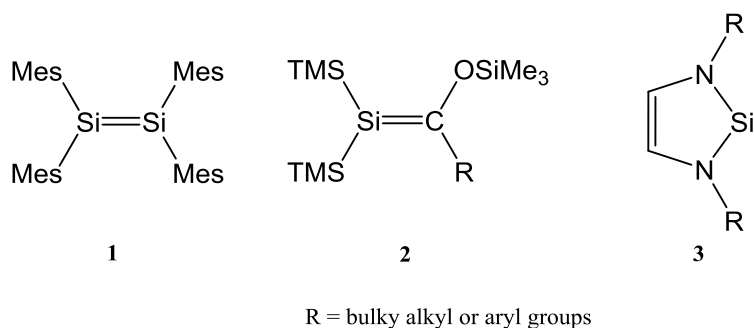


Figure 1. First synthetically accessible low-valent silicon compounds.

[1] R. West, M. J. Fink and J. Michl, *Science*, **1981**, 214, 1343-1344.

[2] A. Brook, F. Abdeskan, B. Gutekunst, E. Gutekunst, and R. K. Kallury, *J. C. S. Chem. Comm.*, **1981**, 191-192.

[3] R. West and M. Denk *Pure and Appl. Chem.* **1996**, 68, 785-788.