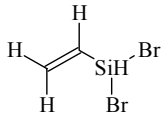
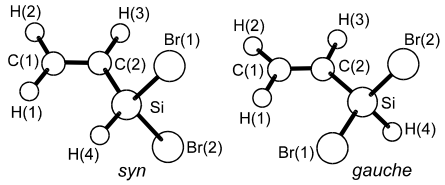
255 **$C_2H_4Br_2Si$** **Dibromo(ethenyl)silane** **C_s** (*syn*)
ED, *ab initio* and DFT calculations Dibromo(vinyl)silane **C_1** (*gauche*)



r_g	Å [a])
C=C	1.366(10)
C–Si	1.827(9)
Si–Br	2.206(2)
Si–H	1.501 [c])
C–H (average)	1.100 [c])

θ_α	deg [a])
C–C–Si	121.7 [b])
C–C–H (average)	121.2 [b])
Br–Si–Br	109.0(2)
C–Si–Br	110.1(8)
C–C–H(1)	122.5 [b])
C–C–H(2)	121.9 [b])
C–C–H(3)	119.1 [b])
C–Si–H(4)	111.4 [b])
Si–C–H(3)	119.2 [b])
Br–Si–H	108.1(9)
H–C–H	115.6 [b])
τ [d])	0 [c])

The molecule was found to exist as a mixture of *syn* (27%) and *gauche* (73%) conformers, no uncertainties being reported. A dynamic model of pseudoconformers was used to describe the internal rotation around the C–Si bond. Structural differences between all pseudoconformers were assumed at the values from HF/3-21G* and HF/6-311G(d) calculations. The structural parameters are listed for the *syn* conformer.
The nozzle was at 296…298 K.



[a]) Twice the estimated standard errors including a systematic error.
[b]) Assumed at the value from HF/6-311G(d) calculations.
[c]) Assumed.
[d]) Torsional angle C=C–Si–H. This angle was assumed to be 120° for the *gauche* conformer.

Johansen, T.H., Hagen, K., Hassler, K., Richardson, A.D., Pätzold, U., Stølevik, R.: J. Mol. Struct. **550-551** (2000) 257.