

REACTIONS OF TRIFLUOROMETHYLTHIOAMINES WITH REDUCING AGENTS

Alois Haas and Monika Willert-Porada*

Anorganische Chemie II, Ruhr-Universität Bochum, Postfach 102 148, D-4630 Bochum (F.R.G.)

Reactions of trifluoromethylthioamines $(\text{CF}_3\text{S})_{3-n}\text{NH}_n$ with NaH ($n = 0, 1, 2$), NaBH_4 , NaNH_2 ($n = 1, 2$) and NaOR ($\text{R} = \text{CH}_3, \text{C}_2\text{H}_5$; $n = 1$) occur with differing sites of attack on the amin.

Results of the NaH -reactions suggest that nucleophilic attack takes place at the hydrogen, nitrogen or sulphur atoms. With NaBH_4 the amines CF_3SNH_2 and $(\text{CF}_3\text{S})_2\text{NH}$ behave as Lewis acids. In the presence of J_2 as trapping-reagent for the hydride-ion the adduct $(\text{CF}_3\text{S})_2\text{NH}\cdot\text{BH}_3$ could be isolated. Degradation of the amine occurs upon reaction with NaOR ; however with NaNH_2 an exchange reaction is observed.

$^{15}/^{14}\text{N}$ -NMR-data for the trifluoromethylthioamines and several derivatives (silyl-, stannyl- and boric-) are presented.