

STRUCTURES AND REACTIVITIES OF SULFONIUM SALTS IN
RELATION TO THEIR LEWIS-ACIDITY

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Either by F^- -abstraction from ψ -pentacoordinated sulfuranes or by alkylation of ψ -tetracoordinated imino derivatives, various amino fluoro trifluoromethyl sulfonium hexafluoroarsenates were prepared (e.g. $CF_3SF_2^+$, $Me_2NSF_2^+$, $(CF_3)_2SNMe_2^+$, $CF_3S(NMe_2)_2^+$, $CF_3SFNMe_2^+$). X-ray-structures of these compounds and nmr-investigations show a similar influence of CF_3 and F on the Lewis acidity of the sulfur centers. One amino group (e.g. in $Me_2NSF_2^+$) causes that anion-cation-interactions in the crystal are rather weak, when two Me_2N -groups are present, these interactions are negligible.

In isocyanato derivatives SX_2NCO^+ ($X = Cl, F$) Lewis acids primarily attack the carbon of the isocyanato group, not the sulfonium center. The primary addition products with silylamines decompose completely. With S_4N_4 stable adducts are isolated.