(see Fig. 1). On further increase in the protonating ability of the acid, for example, on transition to $HClO_4$, the center of gravity of this band undergoes a further shift.

Spectra 4-7 are similar in both form and the position of their centers of gravity. This indicates the similarity of the acid strength of acids HSO₃CF₃, HClO₄, HAlCl₄ (in free state it is unknown), and HGeCl₃. The first three belong to the class of superacids [4]. A quantitative evaluation of the acidity of trichlorogermane is not available. From our data, HGeCl₃ can also be placed in the class of superacids, as confirmed by its exclusive reactivity during the reaction with various unsaturated, including aromatic, compounds [5].

In conclusion, we should stress that when a more polar solvent CH_3CN (ε 38) is replaced by the less polar CH_2Cl_2 (ε 8.9), all the NH vibration bands studied in the spectra (1-4, 6, 7) are shifted by 100-150 cm⁻¹ to the low frequency region. This confirms that the absorption bands in spectra 1-7 correspond not to the free NH vibrations in the solution, but to pyridinium ions, perturbed by a hydrogen bond with anion A_i^- .

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REACTIONS OF 1-IODOSILATRANE WITH ORGANOMERCURY COMPOUNDS

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The methods for formation of the carbon-silicon bond in silatranes were not known until the present time. In continuation of the study on the reactions of 1-iodosilatrane [1], we found that it reacts with diethyl- and diphenylmercury with the formation of 1-ethyl-and 1phenylsilatranes, respectively. At $\sim 20^{\circ}$ C, in CHCl₃, the reaction proceeds when an evacuated

$$\mathbf{S}_{1}^{i}(\mathrm{OCH}_{2}\mathrm{CH}_{2})_{8}\mathrm{N} + \mathrm{R}_{2}\mathrm{Hg} \rightarrow \mathrm{RS}_{1}^{i}(\mathrm{OCH}_{2}\mathrm{CH}_{2})_{8}\mathrm{N} + \mathrm{RHg}_{2}\mathrm{Hg}$$

equimolecular mixture of the reagents is stirred for 12 h when $R = C_2H_5$, and 96 h when $R = C_6H_5$. The physicochemical constants, mass spectra, and the ¹H and ²⁹Si NMR spectra of the compounds obtained correspond to the literature data [2]. The yield of 1-ethylsilatrane is 80-85%, and of 1-phenylsilatrane it is 50-55%.

Under the same conditions, the reaction of 1-iodosilatrane with ethylmercury chloride led to the formation of 1-chlorosilatrane (yield 95%, time 12 h).

 $\mathrm{IS}^{\dagger}(\mathrm{OCH}_{2}\mathrm{CH}_{2})_{3}\overset{}{\mathrm{N}}^{\prime}+\mathrm{C}_{2}\mathrm{H}_{5}\mathrm{Hg}\mathrm{Cl}\rightarrow\mathrm{ClS}^{\dagger}(\mathrm{OCH}_{2}\mathrm{CH}_{2})_{3}\overset{}{\mathrm{N}}^{\prime}+\mathrm{C}_{2}\mathrm{H}_{5}\mathrm{Hg}\mathrm{I}$

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