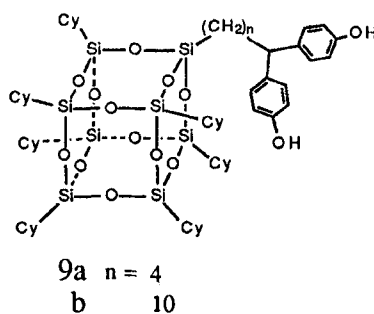


Index Abstracts

A general method has been developed for the preparation of silsesquioxanes with potentially polymerizable *p,p'*-disubstituted diphenylmethyl groups attached to one vertex of the "T₈" framework, including [Cy₇Si₈O₁₂(CH₂)₄CH(C₆H₄OH)₂] (**9a**), [Cy₇Si₈O₁₂(CH₂)₁₀CH(C₆H₄OH)₂] (**9b**), shown [Cy₇Si₈O₁₂(CH₂)₄CH(C₆H₄NH₂)₂] (**10a**), [Cy₇Si₈O₁₂(CH₂)₁₀CH(C₆H₄NH₂)₂] (**10b**), [Cy₇Si₈O₁₂(CH₂)₄CH(C₆H₄CO₂H)₂] (**14**).

The reaction of [Cy₇Si₈O₁₂CH₂CH₂CO₂CH₃] (**2**) with BrMgC₆H₄OCH₂Ph (**6a**) affords an interesting disilanol derived from the hydrolytic cleavage of one Si-O-Si linkage in a completely condensed T₈ framework.

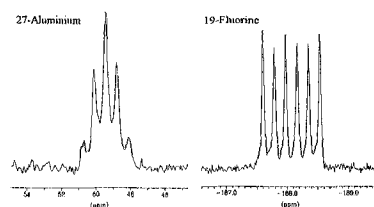
It has been found that in solutions of donor solvents (dimethylsulphoxide, acetonitrile), tetrahedral tetrafluoroaluminate anion is stabilized by benzo-15-crown-5. Formation of the AlF₄⁻ is unambiguously confirmed by data of the ¹⁹F and ²⁷Al NMR spectra.



F. J. Feher, J. J. Schwab, D. M. Tellers and A. Burstein

A General Strategy for Synthesizing Cubeoctameric Silsesquioxanes Containing Polymerizable Functional Groups

169-181

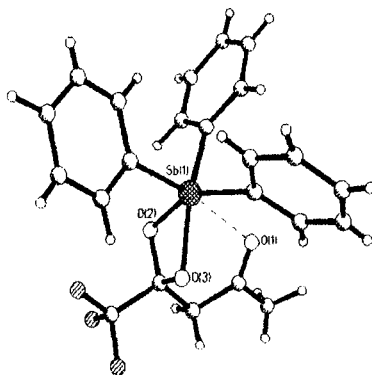


S. P. Petrosyants, M. A. Malirik, E. O. Tolkacheva, and A. Yu. Tsivadze

A Novel Approach to the Formation of the Tetrahedral AlF₄⁻ Anion in Solution

183-185

5,5,5-Trifluoro-2-pentanone-4,4-diolato-triphenylantimony(V) (**1**) was obtained by the one step oxidation reaction of triphenylantimony, *tert*-butylhydroperoxide and trifluoroacetylacetone. The crystal structure of **1** has been determined by X-ray diffraction method. It was shown that **1** is a six coordinated antimony complex. The coordination mode of the Sb atom in **1** can be described as a significantly distorted octahedron. In crystal structure the molecules of **1** are associated into a centrosymmetrical dimer by a weak hydrogen O...H—C bonds between adjacent molecules.

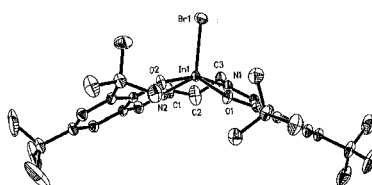


A. V. Gushchin, R. I. Usyatinsky, G. K. Fukin, V. A. Dodonov and L. N. Zakharov

The One Stage Synthesis and Crystal Structure of 5,5,5-Trifluoro-2-pentanone-4,4-diolato-triphenylantimony(V)

187–190

New five-coordinate indium halides and alkyls have been prepared which contain the bulky Schiff base ligands, Salen(^tBu). These are of formula Salen(^tBu)InX (where L = Salen(^tBu) X = Cl, Br (shown), Et, Me). Compared to four-coordinate group 13 compounds these are remarkably unreactive with a number of protic and lithiated reagents. Only the derivative, Salen(^tBu)InOSiPh₃, could be isolated from a rational synthesis. However, [SalpenIn(μ-OMe)]₂ could be isolated in trace quantities from a related reaction.

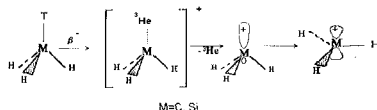


M. S. Hill and D. A. Atwood

Synthesis and Reactivity of Five-Coordinate Indium Halides and Alkyls

191–202

The nuclear-chemical method is applied for the formation of silylenium cations. Several important sources of cationic species excitation are discussed. The quantum-chemical *ab initio* calculations (Gaussian 94W with 6-311G** and 6-31G** basis sets) are used to model the process of breaking off H₃M⁺ -- ³He bond (M = C, Si) and to estimate the "deformation energy" of H₃M⁺. The role of electron correlation effects in the framework of the RHF + MP2 method is discussed.

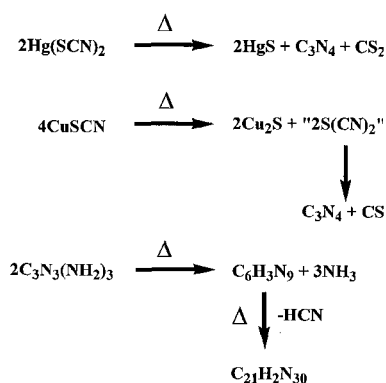


B. F. Shchegolev and T. A. Kochina

The Nuclear-Chemical Method of Carbenium and Silylenium Cation Generation. *Ab Initio* Calculations in Radiochemistry

203–206

Amorphous carbonic nitride materials were synthesized from the thermal decomposition of mercury thiocyanate and copper thiocyanate the red, air-sensitive materials sublime at 700°C by depolymerization into molecular C₃N₄ and repolymerization on the cold finger. The final product from the thermolysis of melamine still contained substantial amounts of hydrogen and sublimed at the same temperature.

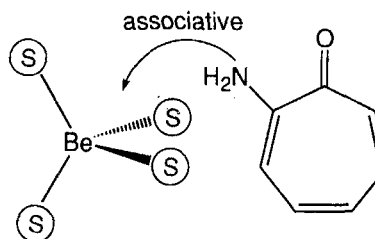


A. P. Purdy and J. H. Callahan

Syntheses of Sublimable Carbon Nitride Materials

207-213

Kinetics of the formation and dissociation reactions of the 1:1 complex of the beryllium(II) ion in DMF have been investigated spectrophotometrically at various temperatures and pressures. The activation parameters indicate that the reaction mechanism for the complexation of the beryllium(II) ion in DMF is associative in character.

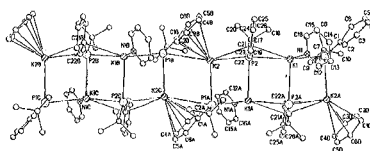


T. Kato, S.-I. Aizawa and S. Funahashi

Variable-Temperature and -Pressure Kinetic Study of the Complexation of the Beryllium (II) Ion with 2-Amino-2,4-cycloheptatrien-1-one in *N,N*-Dimethylformamide

215-219

The molecular structures of different base adducts of KP(^tBu)Ph are reported featuring one-dimensional ladder-type connectivities in the solid state of the type AÁ BB'AÁBB'. E.g., crystallization of KP(^tBu)Ph from toluene/tetrahydrofuran leads to formation of {[KP(^tBu)Ph]₂·(tetrahydrofuran)}_x (as shown).



G. W. Rabe, S. Kheradmandan, H. Heise, I. A. Guzei, L. M. Liable-Sands and A. L. Rheingold

Influence of Donor Solvents on the Molecular Structure of KP(^tBu)Ph

221-228