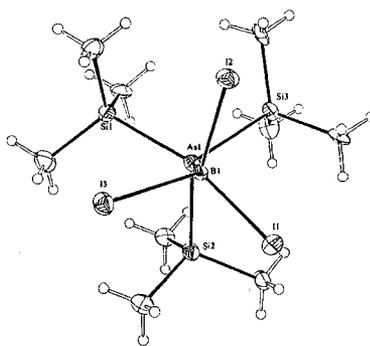


## Index Abstracts

A low-temperature ( $-78^{\circ}\text{C}$ ) 1:1 mole ratio reaction of  $\text{BI}_3$  with  $\text{As}(\text{SiMe}_3)_3$  produced the 1:1 Lewis acid-base adduct  $\text{I}_3\text{B}\cdot\text{As}(\text{SiMe}_3)_3$  (**1**), whereas the identical reaction performed at room temperature (previously reported)<sup>1</sup> produced the dimeric compound,  $[\text{I}_2\text{BAs}(\text{SiMe}_3)_2]_2$  (**2**). Full characterization of compound **1** was conducted, including a single-crystal X-ray structural determination. The previously unreported X-ray crystal structures of **2** and  $\text{Cl}_3\text{B}\cdot\text{As}(\text{SiMe}_3)_3$  (**3**) have also been elucidated.

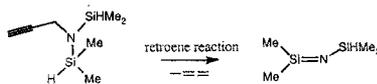


M. S. Lube, R. J. Jouet,  
R. L. Wells, P. S. White, and  
V. G. Young, Jr.

Further Investigations into the  
Synthesis and Characterization  
of Halo-Boron-Arsenic Com-  
pounds: X-Ray Crystal Struc-  
tures of  $\text{X}_3\text{B}\cdot\text{As}(\text{SiMe}_3)_3$  ( $\text{X} = \text{Cl}$ ,  
 $\text{I}$ ) and  $[\text{I}_2\text{BAs}(\text{SiMe}_3)_2]_2$

89–96

The unhindered 1,1-dimethyl-*N*-dimethylsilylsilanimine, generated under flash vacuum thermolysis conditions by “retroene” reaction, has been characterized for the first time by its photoelectron spectrum. The experimental ionization potentials (8.3 and 9.0 eV) respectively are associated with the ejection of an electron from the  $n_{\text{N}}$  and  $\pi_{\text{Si}=\text{N}}$  orbitals. An *ab initio* theoretical investigation provides further insight into the electronic and structural characteristics of the  $\text{Si}=\text{N}-\text{Si}$  backbone.



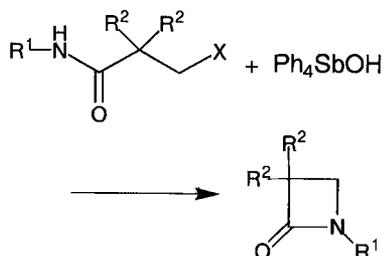
V. Métail, S. Joanteguy, A.  
Chrostowska-Senio, G. Pfister-  
Guillouzo, A. Systemans and  
J. L. Ripoll

Gas-Phase Generation and  
Photoelectron Spectrum of 1,1-  
Dimethyl-*N*-Dimethylsilylsi-  
lanimine

97–106

Molecular Modelling of "spherical" cyclophosphazenic dandelion dendrimers shows that the whole moieties belong to the  $C_3$  point group, conversely to the starting material,  $N_3P_3Cl_6$ , which is of  $D_{3h}$  symmetry. Moreover, these spherical dendrimers have actually significant dipole moments due to a non-centrosymmetrical distribution of the lone pairs of the nitrogen atoms of their amino groups and functions.

Tetraphenylstibonium hydroxide ( $Ph_4SbOH$ ) acted as a profitable base to effect the synthesis of  $\beta$ -lactams from haloamides. In most cases, acrylamides which were serious by-products in other studies formed in poor yields. Cyclic carbamates were also prepared under the same conditions from the corresponding halocarbamates.



J.-P. Fayet, F. Sournies, F. Crasnier, M.-C. Labarre and J.-F. Labarre

Why "Spherical" Cyclophosphazenic Dandelion Dendrimers Have a Dipole Moment?

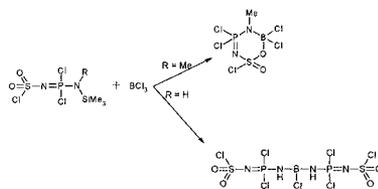
107-110

M. Fujiwara, M. Tanaka, A. Baba, H. Ando, and Y. Souma

Novel Synthesis of Lactams and Cyclic Carbamates Using Tetraphenylstibonium Hydroxide

111-115

The reaction of  $(Me_3Si)MeNPCI_2NSO_2Cl$  with  $BCl_3$  gives rise to the cyclic 2,2,4,4,6-pentachlor-3-methyl-6-oxo-1,6,2,3,5,4-oxathiaboradiazafosfinine-6-onio-2-ide  $Cl_2PN(O)ClOBCl_2NMe$  (IV) while the reaction of  $Me_3SiNHPCl_2NSO_2Cl$  with  $BCl_3$  leads to the linear compound bis(*N*-chlorosulfonyl-dichlorophosphazino)chloroborane  $(ClSO_2NPCl_2NH)_2-BCl$  (VI). Both compounds were characterized by  $^{31}P$ - and  $^{11}B$ -NMR spectroscopy and elemental analysis, and their crystal structures were determined.

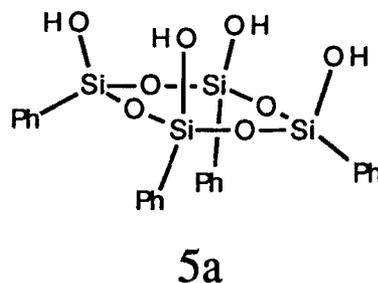


D. Novotný, J. Příhoda, Z. Žák, and J. Marek

Reactions of trichlorophosphazeno-*N*-sulfonylchloride and its derivatives II. The reaction of  $(Me_3Si)RNPCL_2NSO_2Cl$  ( $R = H, Me$ ) with  $BCl_3$ , the structures of cyclic  $Cl_2PNS(O)ClOBCl_2NMe$  and linear  $[ClSO_2NPCl_2NH]_2BCl$

117-122

The hydrolytic condensation of  $PhSiCl_3$  in acetone precipitates **5a** as the sole crystalline product in ~40% yield. The all-*cis* structure, which was originally assigned by J. F. Brown on the basis of IR spectroscopy and derivatization studies, was confirmed by a single-crystal X-ray diffraction study. Tetrasilanol **5a** can be exhaustively silylated with  $Me_3SiCl$ , but all attempts to effect clean partial silylation produced complex mixtures of partially silylated T-resins.

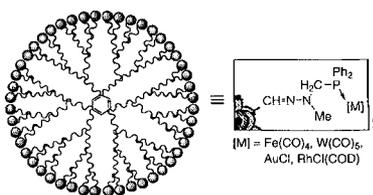


F. J. Feher, J. J. Schwab, D. Soulvong and J. W. Ziller

Synthesis, Characterization and Reactivity of *cis-cis-cis*- $[(C_6H_5)_4Si_4O_4(OH)_4]$ .

123-132

The complexation properties of diphenylphosphino terminated dendrimers built from a cyclotriphosphazene core are studied. These compounds complex several types of organometallic moieties such as  $\text{Fe}(\text{CO})_4$ ,  $\text{W}(\text{CO})_5$ ,  $\text{RhCl}(\text{COD})$  and  $\text{Au-Cl}$ . Some of these reactions have been carried out up to the fifth generation (192  $\text{Ph}_2\text{P} \rightarrow \text{Au-Cl}$  terminal groups).

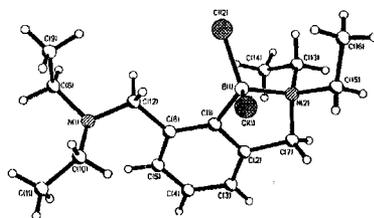


M. Bardaji, M. Slany, M.-L. Lartigue, A.-M. Caminade, B. Chaudret and J. P. Majoral

Complexation Properties of Bowl-shaped Dendrimers

133–140

The reaction of  $\text{Li}\{2,6-(\text{NEt}_2\text{CH}_2)_2\text{C}_6\text{H}_3\}$  with  $\text{BCl}_3 \cdot \text{Et}_2\text{O}$  in hexane yields  $\text{BCl}_2[2-\{\text{BCl}_3(\text{NEt}_2\text{CH}_2)\}_6-(\text{NEt}_2\text{CH}_2)_2\text{C}_6\text{H}_3]$  (**1**) as the thermodynamically favoured product. If  $\text{BCl}_3 \cdot \text{pyridine}$  is employed, only  $\text{Cl}\{2,6-(\text{NEt}_2\text{CH}_2)_2\text{C}_6\text{H}_3\}$  is formed. **1** reacts with  $[\text{PPh}_4]\text{Cl}$  to give the  $\text{BCl}_3$ -free product  $\text{BCl}_2\{2,6-(\text{NEt}_2\text{CH}_2)_2\text{C}_6\text{H}_3\}$  (**2**) with formation of  $[\text{PPh}_4][\text{BCl}_4]$ .  $\text{Li}\{2-(\text{NMe}_2\text{CH}_2)\text{C}_6\text{H}_4\}$  reacts with  $\text{BCl}_3$  to give  $\text{BCl}_2\{2-(\text{NMe}_2\text{CH}_2)\text{C}_6\text{H}_4\}$  (**3**). **1–3** were characterized spectroscopically (NMR, IR, MS) and their crystal structures were determined.

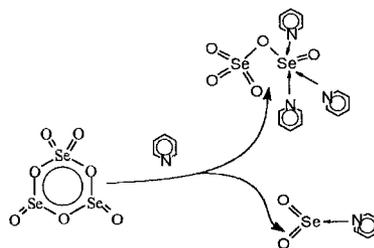


R. Schlengermann, J. Sieler and E. Hey-Hawkins

Synthesis and Molecular Structures of the Base-stabilized Arylboron Dichlorides  $\text{BCl}_2\{2,6-(\text{NEt}_2\text{CH}_2)_2\text{C}_6\text{H}_3\}$  and  $\text{BCl}_2\{2-(\text{NMe}_2\text{CH}_2)\text{C}_6\text{H}_4\}$

141–148

$\text{Se}_3\text{O}_7$  reacts with excess pyridine to form the donor-acceptor (DA) complexes  $\text{SeO}_2 \cdot \text{Py}$  and  $\text{Se}_2\text{O}_5 \cdot 5\text{Py}$ . The latter compound was characterized by elemental analysis, Raman spectroscopy, thermal analysis and X-ray crystallography.

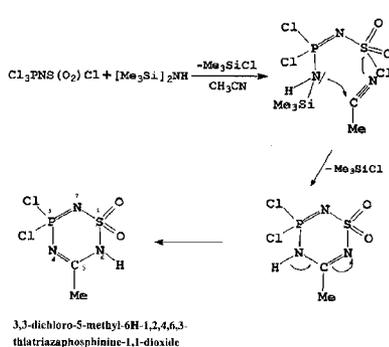


K. Nepelchová, Z. Žák and J. Toužín

Reaction of Triselenium Heptoxide with Pyridine – Novel DA-complex  $4\text{Py} \cdot \text{Se}_2\text{O}_5$

149–153

Trichlorophosphazo-N-sulfonylchloride  $\text{Cl}_3\text{PNS}(\text{O}_2)\text{Cl}$  (**1**) reacts with  $[(\text{CH}_3)_3\text{Si}]_2\text{NR}$ ,  $\text{R} = \text{H}, \text{CH}_3$  to give its N-trimethylsilyl derivatives  $(\text{CH}_3)_3\text{SiN}(\text{H})\text{P}(\text{Cl}_2)\text{NS}(\text{O}_2)\text{Cl}$  (**2**) and  $(\text{CH}_3)_3\text{SiN}(\text{CH}_3)\text{P}(\text{Cl}_2)\text{NS}(\text{O}_2)\text{Cl}$  (**3**). At elevated temperatures (**2**) reacts with  $\text{CH}_3\text{CN}$  under an intramolecular elimination of  $(\text{CH}_3)_3\text{SiCl}$  and a formation of 3,3-dichloro-5-methyl-6H-1,2,4,6,3-thiazatriazaphosphinine-1,1-dioxide



Reaction of copper(II) *p*-toluenesulfonate with tetrahydrothiophene (THT) forms a THT cation radical and a THT dication by stepwise one-electron oxidation by  $\text{Cu}^{2+}$ . Generation of a dimeric species of THT dication is proposed to explain the formation of tetramethylene sulfide (TMSO) upon hydrolysis of the dimeric THT dication with  $\text{H}_2\text{O}$ .



Z. Žák, A. Růžička, M. Vlčková and L. Fröhlichová

Reactions of Trichlorophosphazo-N-Sulfonylchloride and its Derivatives I. Synthesis of a New Heterocycle Containing P, N, S, and C Atoms in its Six-membered Ring. Crystal Structures of  $(\text{CH}_3)_3\text{SiN}(\text{H})\text{P}(\text{Cl}_2)\text{NS}(\text{O}_2)\text{Cl}$ ,  $(\text{CH}_3)_3\text{SiN}(\text{CH}_3)\text{P}(\text{Cl}_2)\text{NS}(\text{O}_2)\text{Cl}$ , and  $\text{P}(\text{Cl}_2)\text{NS}(\text{O}_2)\text{N}(\text{H})\text{C}(\text{CH}_3)\text{N}$  at 150 K

155–160

N. Yanagihara, S. Tanikawa, N. Suzuki, M. Rivera and T. Ogura

Formation of Tetramethylene Sulfoxide via Oxidation of Tetrahydrothiophene by Copper(II)

161–163