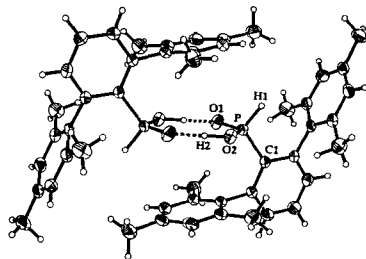


Index Abstracts

The synthesis of the new hindered phosphorus complexes ArPCl_2 (1), ArP(O)(OH)H (2), ArPH_2 (3), and $\text{ArP}=\text{PAr}$ (4) (Ar = 2,6-dimesitylphenyl) are presented. Compounds 2 and 4 have been subjected to single crystal X-ray analysis and the structures are reported.

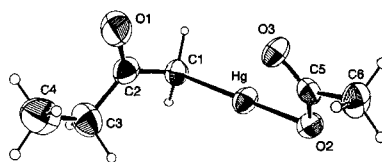


E. Urnézius and J. D. Protasiewicz

Synthesis and Structural Characterization of New Hindered Aryl Phosphorus Centers (Aryl = 2,6-Dimesitylphenyl)

369–372

The direct mercuriation of acetone leads to trimercurated acetone. In the case of butanone the mixture of trimercurated butanone (80%) is obtained along with dimercurated (15%) and monomercurated butanone (5%) respectively. The site and degree of mercuriation was confirmed by one- and two dimensional ^1H and ^{13}C NMR spectra.



Zora Popović, Branka Korpar-Čolig, Dubravka Matković-Čalogović, Dražen Vikić-Topić and Milan Sikirica

Mercuriation Products of Some Aliphatic Ketones and Keto-Acids. ^1H and ^{13}C NMR Evidence on the Site and Degree of Mercuriation. The Crystal and Molecular Structure of 1-(Acetoxymercurio)butanone

373–385

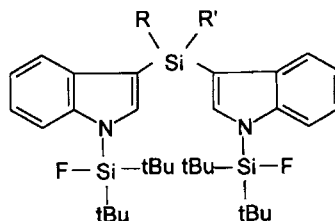
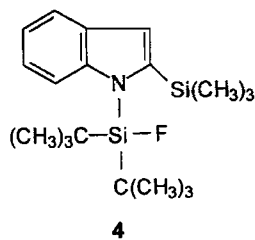
The possibility of formation of cyclodisilazanes by the coordinative dimerization of aminosilanes has been investigated by MNDO and ab initio (3–21G^{*}) methods. It has been shown that this process is mainly controlled by the silicon centers through their charges and acceptor orbitals.

Francisco Lara-Ochoa, Ioan Silaghi-Dumistrescu and Ionel Haiduc

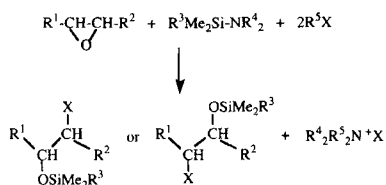
Coordinative Dimerization of Aminosilanes. Model MNDO and Ab Initio Molecular Orbital Calculations

387–398

New 1,2-Bis(silyl)indoles were synthesized via 1,2-silatropy of the tert-butyldimethylsilyl and trimethylsilyl substituent (**4**). Bromination of di-tert-butylfluoro(indol-1-yl)silane with NBS gave the 3-bromosilylindole which reacts with *n*-butyllithium under lithium-bromine-exchange. Starting from the 3-lithiumsilylindole new 1,3-bis(silyl)indoles were synthesized. Reaction with dihalogenosilanes lead to the first bis(indol-3-yl)silanes **9** and **10**.



It is shown that the reagent consisting of silylamine and organohalide has a similar reactivity to iodotrimethylsilane but with easier care, and can effectively open an oxirane ring to give β -trimethylsilyloxyalkyl iodide. Excellent stereoselectivity is found for a fluorofunctional oxirane and 1,2-epoxycyclohexane.



A. Frenzel, R. Herbst-Irmer, U. Klingebiel, M. Noltemeyer, and S. Rudolph

New Routes to 1,2- and 1,3-Bis(silyl)indoles - Synthesis of the First Bis(indol-3-yl)silane

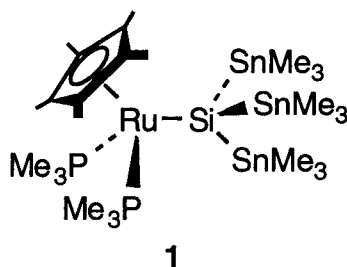
399 - 408

Yasushi Yamamoto, Hideaki Shimizu, Chinami Matui and Michiru Chinda

Transformation of Oxiranes to β -Trimethylsilyloxyalkyl Iodide by *N*-(Trimethylsilyl)-diethylamine and Methyl Iodide

409 - 414

By addition of (THF)₃LiSi(SnMe₃)₃ to the appropriate metal chloride reagent, the complexes Cp*(PMe₃)₂RuSi(SnMe₃)₃ (**1**, Cp* = η^5 -C₅Me₅) and (dcpe)Pt[Si(SnMe₃)₃]Cl (**2**, dcpe = Cy₂PCH₂CH₂PCy₂) have been prepared and structurally characterized. Structural parameters for complex **1** indicate that it is quite sterically congested. Complex **2**, which is less sterically hindered, undergoes rearrangement in refluxing benzene to the complex (dcpe)Pt[Si(SnMe₃)₂]Cl(SnMe₃) (**3**).

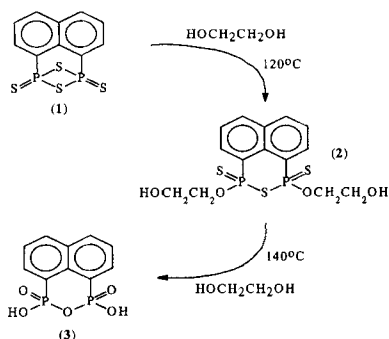


Richard H. Heyn and T. Don Tilley

Tris(trimethylstannyl)silyl Complexes of Ruthenium and Platinum

415 - 424

The preparation and X-Ray structure of two new organo-phosphorus rings is described.



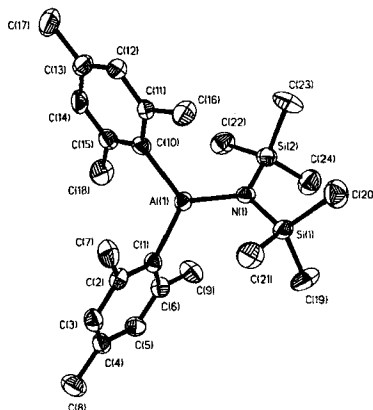
Petr Kilián, Jiri Touzin, Jaromir Marek, J. Derek Woollins and Josef Novosad

Reaction of Naphthalenedithiadiphosphetanedisulphide with Ethylene Glycol

425–429

David A. Atwood and Drew Rutherford

The synthesis and structural characterization of five new amido alane complexes is reported. These include primary amido dimers of general formula $[R_2AlNHR']_2$ and one monomeric secondary amido complex, $Mes_2AlN(SiMe_3)_2$ (shown).



Synthesis and Structural Characterization of Monomeric and Dimeric Aluminum Amides

431–442

The existence of stable rotational isomers of bis-substituted acetylenes has been checked theoretically. The mutual rotation of π -donating or π -accepting substituents having C_{2v} or C_s local symmetry is characterized by the barriers up to 10 kJ mol^{-1} and more according to HF SCF MO data (6-31G and 6-31G/basis sets). Two π -donors or two π -acceptors stipulate stable *s-gauche* conformation while the molecules with π -donating or π -accepting substituents are stable in *s-cis* or *s-trans* conformations.

Y. L. Frolov, N. N. Chipanina and A. V. Kniznik

Theoretical Study of the Electronic Structure and Rotational Isomerism of Bis-Substituted Acetylenes

443–444

The methyl vinyl sulfide (MVS) molecule is investigated by means of the nonempirical HF SCF calculation with full optimization of its geometry (basis sets 6-31G/ for sulfur and 6-31G for other atoms). Energy difference for the *cis* ($\theta = 0^\circ$) and *gauche* ($\theta = 134.4^\circ$) rotational isomers is 207.2 cm^{-1} . The most conformationally sensitive MOs are determined. Dipole moments and vibrational spectra for MVS are measured and also calculated for both isomers.

Y. L. Frolov, N. N. Chipanina and Y. M. Sapoznikov

Theoretical Study of the Rotational Isomerism and Vibrational Spectra of Methyl Vinyl Sulfide

445–450