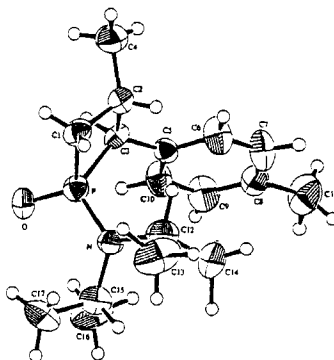


Index Abstracts

The phosphonium cation $[i\text{-Pr}_2\text{N-P-Cl}]^+$ (**1**) selectively inserts into the less hindered ring C—C bond linking to the phenyl group of *trans*-2-methyl-1-(4-substituted)phenylcyclopropane (**2**) to form 1-diisopropylamino-2-(4-substituted) phenyl-3-methyl-phosphetane-1-oxides (**3**). In **3c**, the 1-diisopropylamino group is unexpectedly *cis* to 2-(*p*-methyl)phenyl group and the dihedral angle between the planes $\text{C}_{(1)}\text{-P-C}_{(3)}$ and $\text{C}_{(1)}\text{-C}_{(2)}\text{-C}_{(3)}$ is 15.09° , which is the least in the found values.

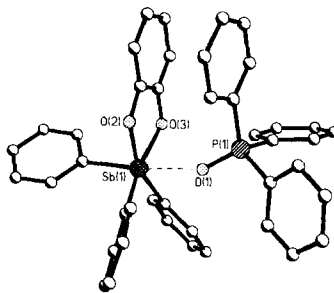


Tian-Bao Huang, Ke Wang,
Ling-Fei Liu and Fa-Hu He

Insertion of ((Di-*iso*-propyl) amino)(chloro)phosphonium Cation into Phenylcyclopropane Ring: Stereochemistry, Regioselectivity and Mechanism

5–14

Six new complexes of hexa-coordinated antimony were prepared by using the "one pot" oxidative method in the reactions of trimethyl(triethyl or triphenyl)antimony with triphenylphosphine and pyrocatechol or ethylene glycol in the presence of 2 moles tert-butylhydroperoxide as well as in the reactions of triphenylantimony and pyrocatechol with tert-butylhydroperoxide in the presence of dimethylsulphuroxide or piridine oxide as monodentate ligands. The structure of $(\text{C}_6\text{H}_4\text{O}_2)\text{SbPh}_3(\text{OPPh}_3)$ was determined by X-ray diffraction method.

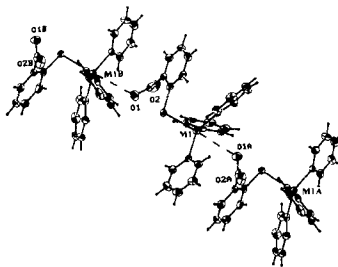


V. A. Dodonov, A. Yu. Fedorov,
G. K. Fukin, S. N. Zaburdyaeva,
L. N. Zakharov and A. V. Ignatenko

Synthesis and Structural Characterization of Some Complexes of Hexa-Coordinated Antimony

15–22

Short non-bonded intramolecular S—O interactions occur in 2,4-(O₂N)₂C₆H₃SX (**2**: X = NMe₂; **3**: X = C₆H₄NO₂-2), but are absent in Ph₃MSC₆H₄NO₂-2 (**4**: M = Ge; **5**: M = Sn; **6**: M = Pb); however weak intermolecular M—O bonding is present in **5** and **6**. The geometries at the metal centres in **5** and **6** are between trigonal bipyramidal and tetrahedral; **4** is essentially tetrahedral.



John H. Aupers, Philip J. Cox, Solange M. S. V. Doidge-Harrison, R. Alan Howie, John N. Low and James L. Wardell

Non-bonded Interactions Involving Oxygen in 2-Nitrobenzenethiolato Compounds: Structures of 2,4-(O₂N)₂C₆H₃SX (X = NMe₂ or C₆H₄NO₂-2) and Ph₃MSC₆H₄NO₂-2 (M = Ge, Sn or Pb)

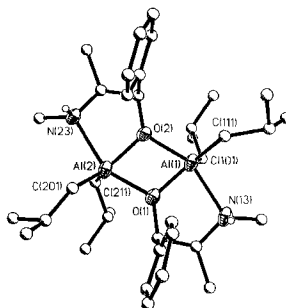
23–42

C. Niamh McMahon, Simon G. Bott and Andrew R. Barron

Steric Effects in Aluminum Compounds Containing Monoanionic Potentially Bidentate Ligands: Effect of the Steric Bulk at the α -Carbon

43–51

The molecular structures of [(^tBu)₂Al(μ -OC(H)(Ph)CH(Me)N(H)Me)]₂ (**1**) and (^tBu)₂Al[OC(CH₂Ph)(Ph)CH(Me)CH₂NMe₂] (**2**) have been determined by X-ray crystallography. Compound **2** is monomeric with a six membered chelate heterocyclic rings. In contrast, compound **1** exists as a bridged dimer. The formation of monomeric chelate compounds for compound **2**, rather than alkoxide bridged dimers as is found for **1** is found to be due to the steric bulk of the aluminum alkyl and substitution at the ligand's α -carbon.

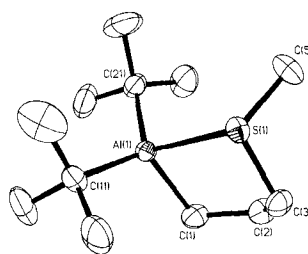


Julie A. Francis, Simon G. Bott and Andrew R. Barron

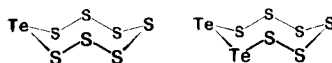
Hydroalumination of H₂C=CHCH₂SMe: Synthesis and Molecular Structure of (^tBu)₂Al(CH₂CH₂CH₂SMe)

53–57

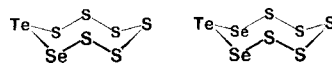
Hydroalumination of H₂C=CHCH₂SMe with [(^tBu)₂Al(μ -H)]₃ yields the monomeric thioether compound (^tBu)₂Al(CH₂CH₂CH₂SMe). The molecular structure of (^tBu)₂Al(CH₂CH₂CH₂SMe) consists of discrete monomers in which the thioether-alkyl ligand acts as a chelate ligand with an Al—S interaction [2.511(2) Å] that is significantly shorter than observed for other intramolecular coordination compounds, 2.78–2.95 Å. The coordination about aluminum is highly distorted from tetrahedral and is therefore best described as capped trigonal planar or trigonal bipyramidal with a vacant coordination site.



Ab initio MO calculations indicate that TeS_7 , 1,2- Te_2S_6 , 1,2- TeSeS_6 , and 1,2,8- TeSe_2S_5 are the most stable tellurium-containing chalcogen rings. These species are also observed in the ^{125}Te NMR spectra of products obtained in the reaction of $[\text{Ti}(\text{MeC}_5\text{H}_4)_2(\text{Te}_x\text{E}_{4-x})_2\text{Ti}(\text{MeC}_5\text{H}_4)_2]$ (E = S, Se) with chalcogen chlorides or in the reaction of $(\text{Me}_3\text{Si})_2\text{Te}$ with ClSeS_5 - SeCl_2 .



Jari Taavitsainen and Risto S. Laitinen



Tellurium-Containing Chalcogen Rings

59-67