

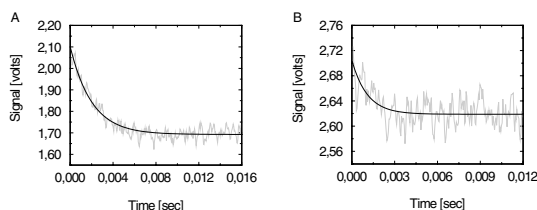
CONTENTS

Volume 19 Number 10

Papers published online October 2005

Section: Bioorganometallic Chemistry

In this paper we present a series of experiments that show transfer of diphenyltin dichloride and triphenyltin chloride across the lipid membrane using the stopped-flow technique. The results obtained demonstrate that diphenyltin dichloride and triphenyltin chloride first adsorb onto the lipid bilayer surface, in a diffusion-controlled manner and within a very short time (0.05 sec), whereas the membrane crossing was observed in a minute's time range. On passing from the outer to the inner surface of the bilayer, organotins undergo desorption and enter the liposome interior, which has been shown in the lipid monolayer desorption studies.

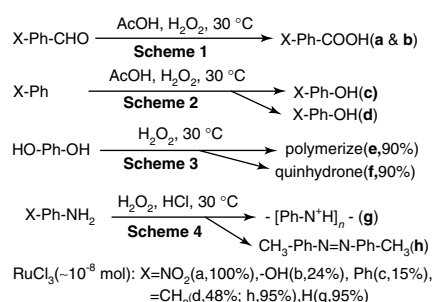


A. Olżyńska, M. Przybyło, J. Gabrielska*, Z. Trela, S. Przestalski and M. Langner 1073–1078

Di- and triphenyltin chlorides transfer across the model lipid bilayer

Section: Materials, Nanoscience and Catalysis

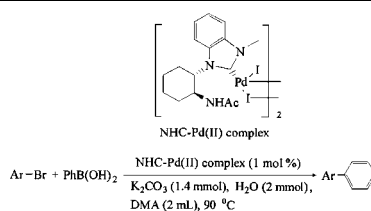
New, simple, economical and environmentally benign $\text{Ru}^{\text{III}}\text{-H}_2\text{O}_2$ system efficiently catalyzes the oxidation of various organic substrates.



P. K. Tandon*, R. Baboo, A. K. Singh, G. and M. Purwar 1079–1082

Simple one pot conversion of organic compounds by hydrogen peroxide activated by ruthenium(III) chloride: organic conversions by hydrogen peroxide in the presence of ruthenium(III)

A stable dimeric mono-coordinated NHC–Pd(II) complex with bridging iodine atoms is synthesized and characterized by single-crystal X-ray diffraction and successfully applied to the Suzuki–Miyaura cross-coupling reaction under aerobic conditions.



M. Shi* and H.-X. Qian 1083–1089

A stable dimeric mono-coordinated NHC–Pd(II) complex: synthesis, characterization, and reactivity in Suzuki–Miyaura cross-coupling reaction

Continued overleaf

Discover papers in this journal online, ahead of the print issue, through EarlyView® at

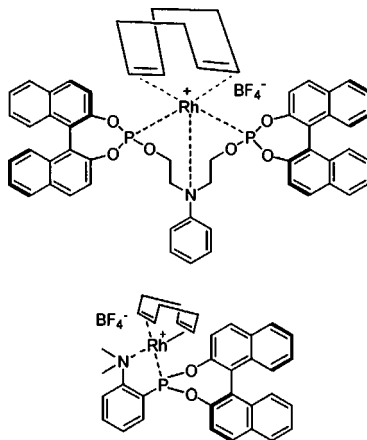


www.interscience.wiley.com



Continued from overleaf

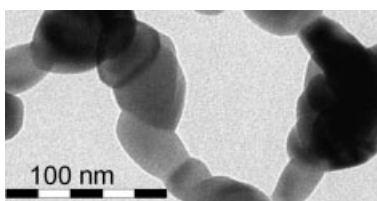
Two new cationic rhodium(I) complexes with a chiral nitrogen-containing BINOL-based diphosphite or phosphonite ligand have been synthesized. They were evaluated in the hydroformylation of styrene and/or the hydrogenation of prochiral olefins and displayed good activities but zero or low enantioselectivities.



I. D. Kostas*, K. A. Vallianatou, J. Holz and A. Börner 1090–1095

Rhodium complexes with a new chiral nitrogen-containing BINOL-based diphosphite or phosphonite ligand: synthesis and application to hydroformylation of styrene and/or hydrogenation of prochiral olefins

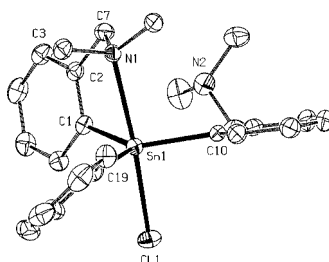
In this work a simple method to phosphorize the surface of nanometric particles of crystalline zirconia in an acetic acid environment is described. The particle size is in the range 40–60 nm and the proton conductivity is of the order of $10^{-3} \text{ S cm}^{-1}$ (measured on powder mixed with micro-fine teflon) at room temperature.



G. Vaivars*, J. Shan, G. Gericke and V. Linkov 1096–1100

Phosphorized zirconium oxide nanoparticles

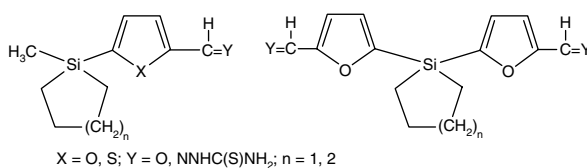
Tri- and di-organotin(IV) compounds containing one or two 2-(dimethylaminomethyl)phenyl- (L^{CN}) groups as chelating ligand(s) were studied by diffraction methods and NMR techniques.



P. Novák, Z. Padělková, L. Kolářová, I. Čisářová, A. Růžička* and J. Holeček 1101–1108

Structure and properties of double-C,N-chelated tri- and di-organotin(IV) halides

A series of 5-[1-methylsilacyclopentyl(hexyl)]-2-furfural, 5-[1-methylsilacyclopentyl(hexyl)]-2-thiophene carbaldehyde and 1,1-bis(5-formyl-



2-furyl)silacyclo-pentane/-hexane and their thiosemicarbazones have been synthesized. Thiosemicarbazones of 5-(1-methylsilacyclohexyl)furfural and 5-(1-methylsilacyclopentyl)furfural were very active ($1.0\text{--}4.0 \mu\text{g ml}^{-1}$) *in vitro* against human fibrosarcoma HT-1080 and mouse hepatoma MG-22A cells.

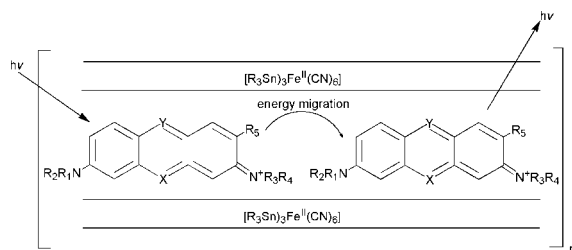
E. Lukevics, L. Ignatovich*, I. Sleiksha, I. Shestakova, I. Domrachova and J. Popelis 1109–1113

Synthesis and cytotoxic activity of silacycloalkyl-substituted heterocyclic aldehydes and their thiosemicarbazones

Continued overleaf

Continued from overleaf

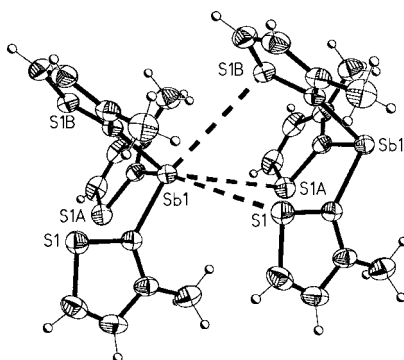
The encapsulation of donor-acceptor dyes within supramolecular framework systems host may be used for building an artificial antenna.



M. E. El-Zaria*, S. H. Etaiw and M. Sh. Ibrahim 1114–1120

Antenna behavior of donor-acceptor dye-loaded novel supramolecular framework hosts

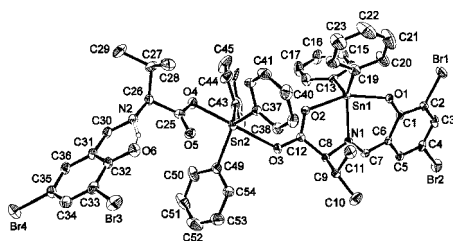
New stibine and bismuthine substituted thienyls, i.e. tris(3-methyl-2-thienyl)-, tris(3-thienyl)-, and tris(5-chloro-2-thienyl)-, have been synthesized and characterized. Crystal structures and cytotoxicity against *Artemia salina* and a few tumour cell lines have been determined.



P. Sharma*, N. Rosas, A. Cabrera, M. J. Silva, A. Toscano, S. Hernández and R. Gutiérrez 1121–1126

Substituted thienyl stibines and bismuthines: syntheses, structures and cytotoxicity

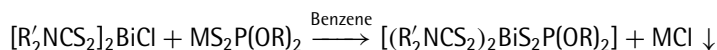
The 1 : 1 reaction of triphenyltin chloride with potassium *N*-[(3,5-dibromo-2-hydroxyphenyl)methylene]valinate leads to the formation of the title compound by means of a facile Sn–C bond cleavage process. The complex contains *trans*-O₂SnC₂N and *trans*-O₂SnC₃ distorted trigonal bipyramidal geometries linked by a bridging carboxylate group. The compound exhibits good cytotoxicity and antibacterial activity.



L. Tian*, Y. Sun, B. Qian, G. Yang, Y. Yu, Z. Shang and X. Zheng 1127–1131

*Synthesis, characterization and biological activity of a novel binuclear organotin complex, Ph₃Sn(HL)·Ph₂SnL [L = 3,5-Br₂-2-OC₆H₂CH=NCH(*i*-Pr)COO]*

The bis(dialkyldithiocarbamato)bismuth(III) diorganodithiophosphate complexes of the type [(R'₂NCS₂)₂BiS₂P(OR)₂] (where R' = Me and Et; R = Et; *n*-Pr, *i*-Pr, *n*-Bu, *i*-Bu and Ph) have been synthesized and characterized by physicochemical and spectroscopic [IR, NMR (¹H, ¹³C and ³¹P)] methods.



The free ligand and its metal complexes were tested *in vitro* against a number of microorganisms to assess their antimicrobial properties. The results are indeed positive.

H. P. S. Chauhan*, N. M. Shaik and U. P. Singh..... 1132–1139

Synthetic, spectroscopic and antimicrobial studies of bis(dialkyldithiocarbamato)diorganodithiophosphatobismuth(III) complexes

Book Review

F. Dewhurst 1140

The experimental determination of solubilities