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Volume 19 Number 11

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Section: Speciation Analysis and Environment

In Ria de Aviero (NW Portugal) *Nassarius reticulatus* presents increasing tributyltin (TBT) body burdens (b.b.) from the open coast (16–26 ng Sn g⁻¹ dw–dry weight) towards the ports inside the estuary (195–272 ng Sn g⁻¹ dw). Imposex also increased from the open coast (vas deferens sequence index (VDSI): 0.0–0.5; relative penis length index (RPLI): 0.0–2.4; penis length index (PLI): 0.0–0.3 mm; percentage of affected females (%I): 0–30) towards the ports (VDSI: 3.8–4.8; RPLI: 51–80; PLI: 6.7–10.8 mm; %I: 100). The ratio of testosterone/17 β -estradiol in females tended to increase with increasing imposex and organotin contamination.

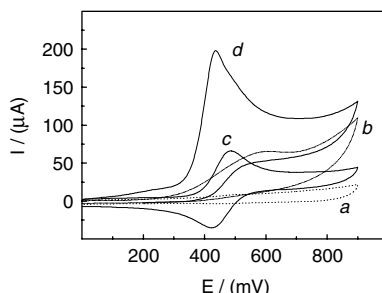


C. M. Barroso*, M. A. Reis-Henriques,
M. Ferreira, P. E. Gibbs and M. H. Moreira
..... 1141–1148

Organotin contamination, imposex and androgen/oestrogen ratios in natural populations of Nassarius reticulatus along a ship density gradient

Section: Materials, Nanoscience and Catalysis

The electrochemical oxidation of sulfite catalyzed by acetylferrocene (AFC) at a glassy carbon electrode (GCE) in 0.2 M NaClO₄ aqueous solution has been studied by cyclic voltammetry. Experimental conditions that maximize the current efficiency of the electrocatalytic oxidation, such as pH and the catalyst (AFC) and substrate (sulfite) concentrations, were also investigated in this work. The reaction rate constant for catalytic oxidation was evaluated as $(7.02 \pm 0.05) \times 10^4 \text{ M}^{-1} \text{ s}^{-1}$ by chronoamperometry. The catalytic oxidation current is proportional to the sulfite concentration and the result can be applied in the determination of real samples.



Z.-N. Gao*, J.-F. Ma and W.-Y. Liu
..... 1149–1154

Electrocatalytic oxidation of sulfite by acetylferrocene at glassy carbon electrode

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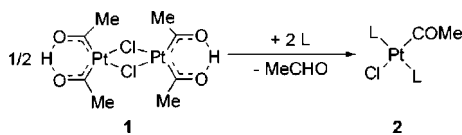


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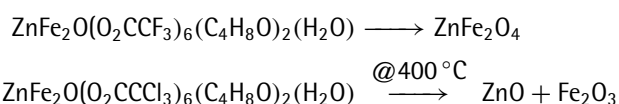
Starting from the platina- β -diketone **1** (being easily accessible from hexachloroplatinic acid and $\text{Me}_3\text{Si}-\text{C}\equiv\text{C}-\text{SiMe}_3$), acetylchlorobis(phosphine)platinum(II) complexes **2** with a wide variety of phosphine ligands **L** are available. Furthermore, ligand substitution reactions of complexes **2** and their decarbonylation to yield methylplatinum complexes are described.



C. Albrecht, C. Wagner, K. Merzweiler, T. Lis and D. Steinborn* 1155–1163

On the reactivity of platina- β -diketones: a straightforward synthesis of trans-acetylchlorobis(phosphine)platinum(II) complexes and their reactivity

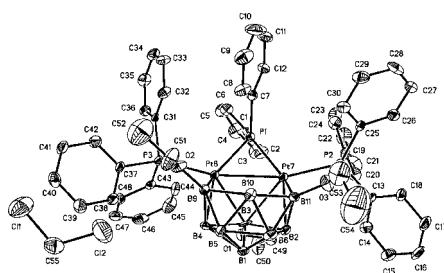
In the pyrolysis of $\text{ZnFe}_2\text{O}(\text{O}_2\text{CCF}_3)_6(\text{C}_4\text{H}_8\text{O})_2(\text{H}_2\text{O})$ in air at 400°C pure ZnFe_2O_4 is formed, in contrast to the pyrolysis of the trichloro derivative, which resulted in the formation of ZnO and Fe_2O_3 . In the pyrolysis of $\text{MnFe}_2\text{O}(\text{O}_2\text{CCF}_3)_6(\text{C}_4\text{H}_8\text{O})_2(\text{H}_2\text{O})$ in nitrogen, MnFe_2O_4 forms as the main phase and single oxides as minor phases.



M. M. Amini* and M. Yadavi 1164–1167

Influence of metal core of mixed-metal carboxylates in preparation of spinel: $\text{ZnFe}_2\text{O}(\text{O}_2\text{CCF}_3)_6$ as a single-source precursor for preparation of ZnFe_2O_4

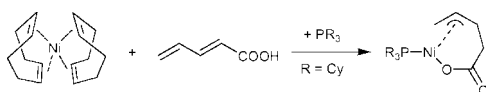
The reaction of $[\text{PtCl}_2(\text{PPh}_3)_2]$ with *closo*- $\text{B}_{10}\text{H}_{10}^{2-}$ in ethanol under reflux conditions gave two *nido* 11-vertex platinaundecaborane clusters: $[(\text{PPh}_3)_2\text{PtB}_{10}\text{H}_{10}-8,10-(\text{OEt})_2]$ (**1**) and $[(\text{PPh}_3)_2\text{PtB}_{10}\text{H}_{11}-11-\text{OEt}]$ (**2**). A novel $\text{B}_{10}\text{H}_{10}^{2-}$ deboronated *nido* 11-vertex diplatin-aundecaborane $[(\mu\text{-PPh}_2)(\text{PPh}_3)_2\text{Pt}_2\text{B}_9\text{H}_6-3,9,11-(\text{OEt})_3\cdot\text{CH}_2\text{Cl}_2]$ (**3**) was obtained when the same reaction was carried out under solvothermal conditions.



J. Dou*, L. Wu, Q. Guo, D. Li, D. Wang, C. Hu and P. Zheng 1168–1175

*Synthesis and crystal structure of three *nido* 11-vertex platinaborane clusters*

Cyclic π^3 -allyl-carboxylato $\text{Ni}(\text{II})$ complexes, which are known to be intermediates in the C–C coupling of butadiene and CO_2 , can be synthesized in one step by oxidative addition of pentadienoic acid at an $\text{Ni}(\text{0})$ centre.

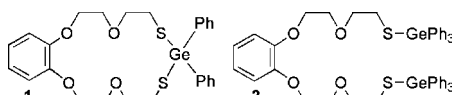


P. S. Schulz*, O. Walter and E. Dinjus 1176–1179

Facile synthesis of a tricyclohexylphosphine-stabilized η^3 -allyl-carboxylato $\text{Ni}(\text{II})$ complex and its relevance in electrochemical butadiene carbon dioxide coupling

Section: Main Group Metal Compounds

A thiacrown ether (**1**) and its acyclic model compound (**2**) modified with germanium moieties were synthesized and their structure confirmed by NMR spectroscopy and elemental analysis. It was shown that the germanium atom in one of the side chains of **2** is pentacoordinated. The cation capture/transport ability is almost ineffective for both compounds. It was suggested that the proximity of cation and anion binding sites would be responsible for this failure.



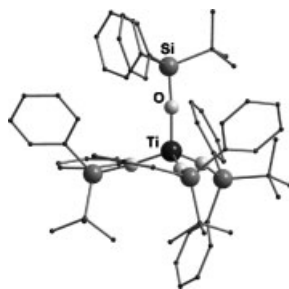
T. Ida, Y. Takase and Y. Takeuchi* 1180–1184

Syntheses and properties of a thiacrown ether and its acyclic model compound modified with germanium moieties

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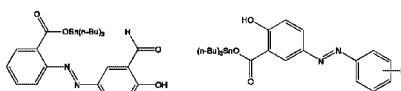
Thermal decomposition of four titanium silanolates $\text{Ti}(\text{OSiR}_2\text{R}')_4$ was compared in order to study their potential for the synthesis of titanium silicates. Single crystals of the novel titanium silanolate $\text{Ti}(\text{OSiPh}_2^t\text{Bu})_4 \cdot \frac{2}{3}\text{CHCl}_3 \cdot \frac{1}{3}\text{C}_7\text{H}_8$ were obtained and its molecular structure is discussed.



D. Mansfeld, M. Schürmann and M. Mehring* 1185–1188

Synthesis, characterization and thermal behaviour of four homoleptic titanium silanolates

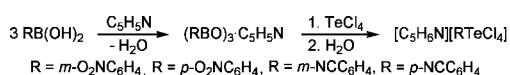
The toxicity studies of free 5-[(*E*)-2-(aryl)-1-diazenyl]-2-hydroxybenzoic acid and 2-[(*E*)-2-(3-formyl-4-hydroxyphenyl)-1-diazenyl]benzoic acid and their tri-*n*-butyltin(IV) complexes were evaluated by using sea urchin early developmental stages as recommended model organisms for toxicity tests. The tri-*n*-butyltin(IV) complexes caused mitosis block and induced high embryonic mortality in sea urchin.



T. S. Basu Baul*, W. Rynjah, K. S. Singh, C. Pellerito, P. D'Agati and L. Pellerito 1189–1195

*Embryotoxicity studies of tri-*n*-butyltin(IV) complexes of 5-[(*E*)-2-(aryl)-1-diazenyl]-2-hydroxybenzoic acid and 2-[(*E*)-2-(3-formyl-4-hydroxyphenyl)-1-diazenyl]benzoic acid on sea urchin development*

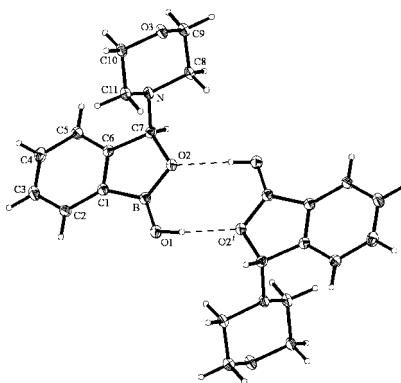
The reaction of triarylboroxine pyridine complexes with tellurium tetrachloride afforded good yields of pyridinium aryltetrachlorotellurates when air moisture was present at the work-up stage. The structures of two compounds were established by X-ray crystallography, showing that two anions are connected via secondary $\text{Te} \cdots \text{Cl}$ interactions and that the cations are associated to the anions by weak $\text{C}-\text{H} \cdots \text{Cl}$ and $\text{N}-\text{H} \cdots \text{Cl}$ interactions.



J. Beckmann*, A. Duthie and C. Mitchell 1196–1201

Facile synthesis of pyridinium aryltetrachlorotellurates: crystal and molecular structure of $[\text{C}_5\text{H}_5\text{N}][\text{RTeCl}_4]$ ($\text{R} = m\text{-O}_2\text{NC}_6\text{H}_4, p\text{-NCC}_6\text{H}_4$)

o-Formylphenylboronic acid reacts with morpholine to give a cyclic condensation product. The crystal structure comprises a hydrogen-bonded centrosymmetric dimer motif with a planar benzoxaborole part that is very similar to that observed in two other benzoxaborole derivatives. The interactions are relatively strong, with the $\text{O} \cdots \text{O}^i$ distance being 2.797(2) Å.



A. Sporzyński*, M. Lewandowski, P. Rogowska and M. K. Cyrański 1202–1203

*1,3-Dihydro-1-hydroxy-3-morpholin-4-yl-2,1-benzoxaborole: product of the reaction of *o*-formylphenylboronic acid with morpholine*

Book Review

A. J. Taylor 1204

Perspectives in flavor and fragrance research

Book Review

R. Whyman 1205

Modern rhodium-catalyzed organic reactions