

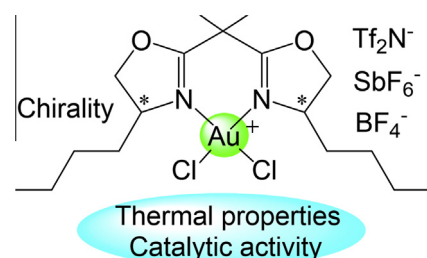
Contents

Yuji Miura, Tomoyuki Mochida, Satoshi Motodate and Keisuke Kato

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Synthesis and thermal properties of salts comprising cationic bis(oxazoline)-Au^{III} complexes and fluorinated anions

Salts comprising cationic box-Au(III) complexes with fluorinated anions were synthesized and their thermal properties were investigated. Salts of an achiral complex exhibited higher melting points than their chiral counterparts. The achiral cation in a BF₄ salt exhibited a bent structure in the solid state. The potential utility of the salt for catalysis was shown in the formation of an acetal from an alkyne.

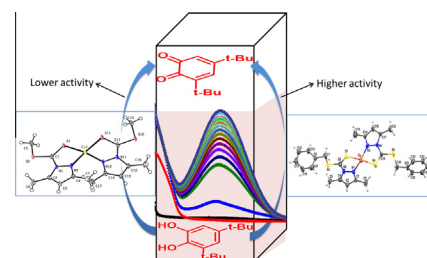


Ananyakumari Santra, Gopinath Mondal, Moumita Acharjya, Pradip Bera, Anangamohan Panja, Tarun K. Mandal, Partha Mitra and Pulakesh Bera

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Catechol oxidase mimetic activity of copper(I) complexes of 3,5-dimethyl pyrazole-1-dithioate derivatives: Coordination behavior, X-ray crystallography and electrochemical study

Isostructural copper(I) complexes of methyl-3,5-dimethyl pyrazole-1-dithioate (L¹) and benzyl-3,5-dimethyl-pyrazole-1-dithioate (L²) were synthesized. The same ligands formed tetrahedral Zn(dmpz)₂Cl₂ and a helical 1-D polymeric chain, [Cd(dmpz)₂Cl₂]_n following dissociation of the parent ligand into 3,5-dimethyl pyrazole (dmpz). The copper (I) (d¹⁰ system) analogues exhibited mimetic catecholase oxidase activity.

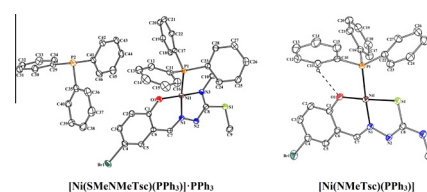


Şükriye Güveli, Namık Özdemir, Bahri Ülküseven and Tülay Bal-Demirci

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Divalent nickel complexes of thiosemicarbazone based on 5-bromosalicylaldehyde and triphenylphosphine: Experimental and theoretical characterization

The reactions of 5-bromo-salicylaldehydethiosemicarbazone-based ligands with triphenylphosphine gave two stable complexes with dark red colours. The magnetic moments of the complexes are in the range 0–0.02 B.M. showing diamagnetic character of nickel(II). The compounds were characterized by means of elemental analysis, IR, ¹H NMR and UV–Vis spectroscopies, and their crystal structures have been determined by X-ray crystallography. Theoretical characterization of the complexes were achieved using the DFT method, and the findings are compared with the experimental ones.



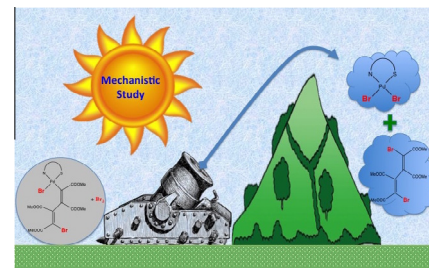
**L. Canovesi, F. Visentin, T. Scattolin,
C. Santo and V. Bertolasi**

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The addition of halogens and interhalogens on palladacyclopentadienyl complexes bearing quinolyl-thioether as spectator ligands. A kinetic and computational study

We have studied the oxidative addition of halogens (I_2 , Br_2) and interhalogens (ICl , IBr) on palladacyclopentadienyl complexes bearing heteroditopic quinolyl-thioethers as ancillary ligands. The reactions with

halogens under stoichiometric conditions yield the σ -butadienyl derivatives. Br_2 in excess yields the free dibromo-(*E, E*)- σ -butadiene and the quinolylthioether palladium(II) dibromide species, whereas the same reaction with I_2 in excess does not induce the extrusion of the diene. The interhalogens react with the starting palladacyclopentadienyl complexes to give the less thermodynamically stable isomers. An interpretation based on computational and mechanistic studies is proposed.

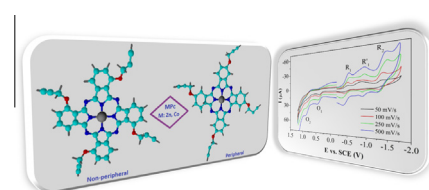


**Özge Koyun, Semih Gördük,
Bahadır Keskin, Ahmet Çetinkaya,
Atif Koca and Ulvi Avcıata**

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Microwave-assisted synthesis, electrochemistry and spectroelectrochemistry of phthalocyanines bearing tetra terminal-alkynyl functionalities and click approach

Both Zn(II) and Co(II) MPCs with tetra terminal-alkynyl units attached to peripheral and nonperipheral positions were synthesized conventionally and also alternatively upon exposure to microwave irradiation. Novel phthalimide-triazole derivative of ZnPc was synthesized via click reaction. Electrochemical and in situ spectroelectrochemical properties of all complexes were examined to determine effect of the position of the substituents.

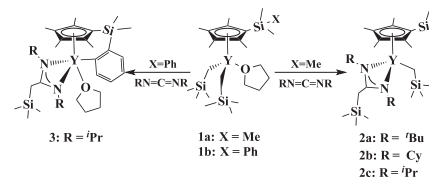


Tie-Qi Xu, Jun-Hu Liu and Yong Liu

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Half-metallocene complexes of yttrium with amidinate ligands: Monoalkyl yttrium formation and C–H bond activation

The reaction of half-metallocene yttrium dialkyls complexes with carbodiimide ligands produces THF-free monoalkyl complexes or C–H bond activation product.



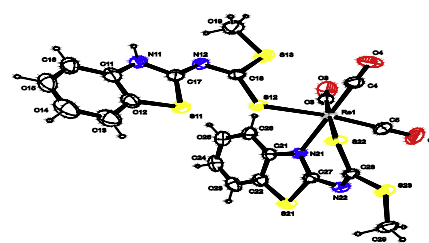
X. Schoutz, T.I.A. Gerber and E.C. Hosten

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Rhenium(I) complexes with benzothiazole-thiourea derivatives

The reaction of the benzothiazole derivatives *N*-phenyl-*N*-(2-benzothiazole)thiourea (Hpbt), 1-(1,3-benzothiazol-2-yl)-3-benzoylthiourea (Hbbt), methylbenzothiazol-2-ylidencarbamodithioate (Hmby) and *N*-(benzothiazol-2-yl)-*S,S'*-dimethyldithiocarboimine (Hbdc) with $[Re(CO)_5Cl]$ led to the isolation of the neutral com-

plexes of the type $[Re(HL)(L)(CO)_3]$ (HL = Hpbt (**1**), Hmby (**3**)) and $[ReCl(HL)(CO)_3]$ (HL = Hbbt (**2**), Hbdc (**4**)). In these complexes the ligands L act as monoanionic bidentate N,*S*-donor chelates, and HL is coordinated in a monodentate manner via the neutral sulfur atom only. The formation of **1** and **3** is due to the ease of thione-thiol tautomerization of the ligands Hpbt and Hmby.



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