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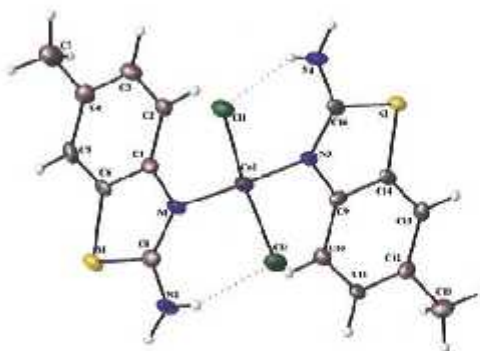
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CONTENTS

1297 Co(II) complex of 2-amino-6-methylbenzothiazole: Synthesis, structure and biological evaluation

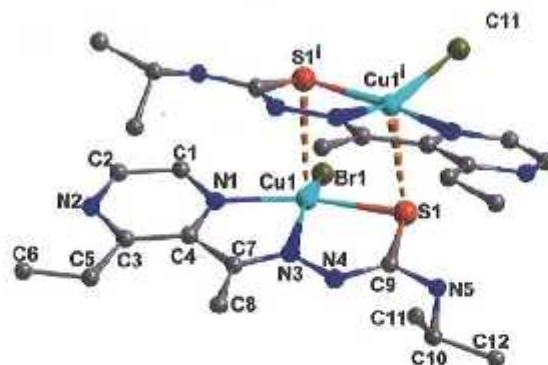
Cobalt(II) complex bearing amino benzothiazole ligand has been synthesized and characterized. The ligand, acts as monodentate, neutral ligand with N as the donor site. The Co(II) complex shows low antioxidant activity against DPPH radical. Cytotoxicity of the complex (IC_{50} : 14.12 μ M) against MCF-7 cell line is comparable to that of cisplatin. In addition, the complex shows good antimicrobial and antituberculosis activities. The DNA binding ability of the ligand and complex, assessed by absorption spectra, reveals a minor groove binding with binding constant = $1.24 \times 10^4 M^{-1}$.



S Jone Kirubavathy, R Velmurugan,
 R Karvembu, N S P Bhuvanesh,
 I V M V Enoch, P Mosae Selvakumar & S Chitra*

1305 Crystal structures and biological evaluation of Cu(II) complexes with 3-ethyl-2-acetylpyrazine N(4)-isopropylthiosemicarbazone

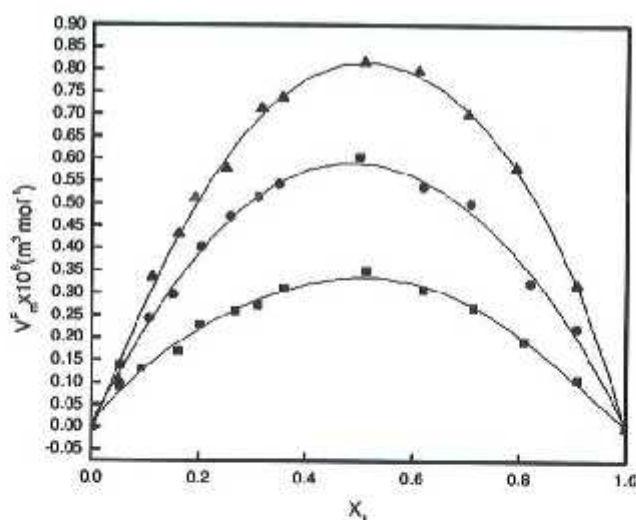
Cu(II) complexes with 3-ethyl-2-acetylpyrazine N(4)-isopropylthiosemicarbazone has been synthesized and characterized. The complexes can inhibit the proliferation of three cancer cell lines, viz. human hepatoma cells SMMC-7721, human gastric cancer SGC-7901 and human pancreatic cancer Patu-8988, which may be related to increase of tumor cell apoptosis.



Xiuqin Ma, Taofeng Zhu, Weina Wu,
 Pandong Miao, Lei Jia, Yuan Wang*,
 Zhen Wang, Ying Hou, Zhihong Cao,
 Hong Chen, Jing Xie, Xinnan Gu*, Tieliang Ma*

1314 Interaction studies in binary liquid mixtures of ether and alcohols at different temperatures

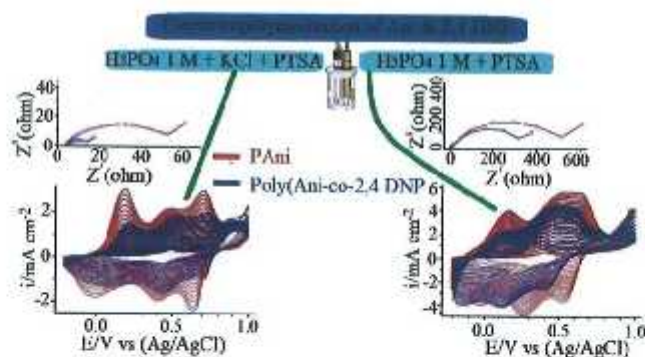
The thermodynamic properties of binary liquid mixtures of triethylene glycol monomethyl ether and alcohols (1-hexanol, 1-octanol, 1-decanol) show that interaction decreases as the number of carbon atoms in the alcohol molecule increases. Positive values of V_m^E and Δn_D show that volume expansion takes place on addition of alcohols to the ether. The negative values of Δu and $\Delta \eta$ indicate the presence of weak intermolecular forces which follow the order: 1-hexanol > 1-octanol > 1-decanol.



Gyan Prakash Dubey* & Krishan Kumar

1325 Electrochemical impedance spectroscopy of homo and copolymer of aniline and 2,4-dinitrophenol in a binary electrolyte system

Electropolymerization of PANi and poly(Ani-co-2,4 DNP) has been carried out in aqueous medium using KCl and PTSA as supporting electrolytes. The charge transfer resistance of polyaniline and copolymers of aniline with 2,4-dinitrophenol electro synthesized in presence of KCl is much less than that electro synthesized in its absence.

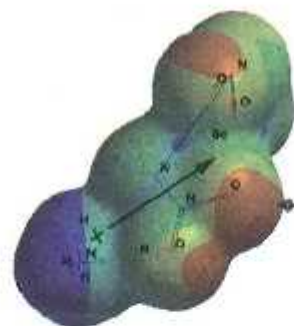


Ali Poursa*, Eftesam Sobhani, Azadeh Shakeri & Farnoush Fridbod

Notes

1334 Interaction of ADN with some group II and III elements

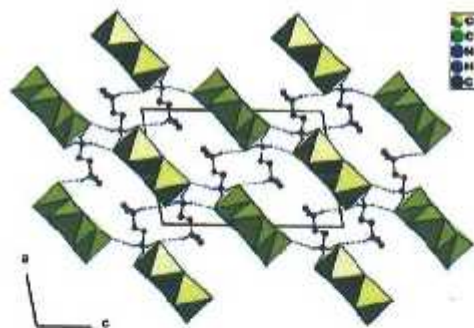
Ammonium dinitramide has been studied quantum chemically at the UB3LYP/6-31++G(d,p) level in the presence of Be, Mg, B and Al. ADN is reduced by Be and Mg, accompanied by the removal of NO_2 moiety which has a negative total charge.



Levl Türker

1342 Synthesis, structure, spectral and theoretical studies of an organic decachlorotricadmate(II)

An organic chlorocadmate, built up by 1-D polymeric chains formed by CdCl_6 edge-sharing octahedra has been prepared. Intermolecular interactions and crystal packing reveals that the close contacts are mainly due to salt bridges and $\text{N-H}\cdots\text{Cl}$ hydrogen bonds.



Melek Hajji & Taha Guerfel*

1347 Green synthesis of CuO/RHA-MCM-41 nanocomposite by solid state reaction: Characterization and antibacterial activity

Rice husk, combusted at 600 °C for production of amorphous silica, is used for the preparation of CuO/RHA MCM-41 nanocomposites containing 5.0 and 10.0 wt.% Cu under solid state reaction.



Monireh Zikari & Afshin Pourahmad*