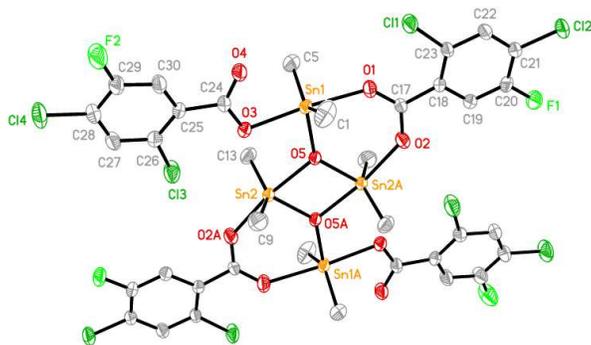


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Research Article



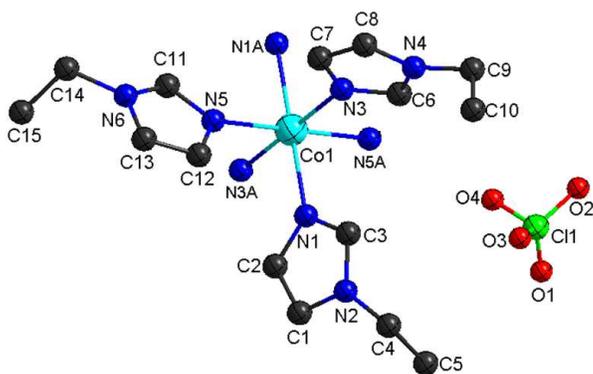
Synthesis, crystal structure and *in vitro* anti-tumor activity of dibutyltin complex of 2,4-dichloro-5-fluorobenzoic acid

Ming Li, Liqin Wang, Zhenlei Zhang, Yue Xin, Laijin Tian*

The dibutyltin complex of 2,4-dichloro-5-fluorobenzoic acid, $[(2,4\text{-Cl}_2\text{-5-FC}_6\text{H}_2\text{C(O)OSnBu}_2)_2\text{O}]_2$ (Bu = $\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$), has been synthesized and characterized by elemental analysis, FT-IR, ^{119}Sn NMR spectroscopy, and X-ray single crystal diffraction. Compound is a centrosymmetric dimer with two distinct types of carboxylate moieties and tin atoms with distorted trigonal bipyramidal geometries. The *in vitro* anti-tumor activity against two human tumor cell lines was found to be higher than that for cis-platin [*cis*-diaminedichloroplatinum(II)] used clinically.

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Research Article



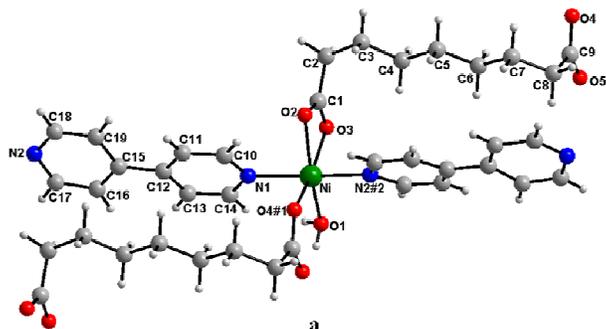
Synthesis and Structural Characterization of $[\text{Co}_{0.5}(\text{bimb})_{1.5}]_n \cdot n\text{ClO}_4$ (bimb = 1,4-bis(imidazol-1-yl)-butane)

Xiu-Mei Li*, Jian-Ye Ji, Zhi-Tao Wang, Yan-Ling Niu

A new cobalt(II) coordination polymer, namely $[\text{Co}_{0.5}(\text{bimb})_{1.5}]_n \cdot n\text{ClO}_4$ (bimb = 1,4-bis(imidazol-1-yl)-butane), has been prepared and fully characterized by single-crystal X-ray diffraction, elemental analyses, IR spectroscopy and X-ray powder diffraction pattern analysis (PXRD). Of the compound, the Co(II) center is octahedral coordinated with bimb serving as a bridging ligand by employing six N-donor to coordinate with the Co(II) center. It exhibits three-dimensional network structure *via* bimb ligands.

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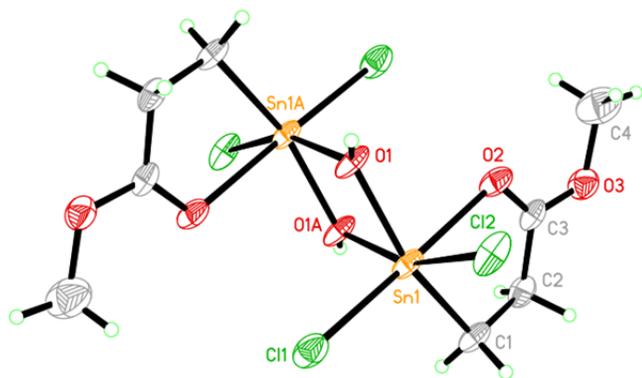
Research Article



Synthesis, crystal structure and thermal stability property of $\text{Ni}(\text{aze})(4,4'\text{-bipy})(\text{H}_2\text{O})$ based on longer-spanning azelaic acid and 4,4'-bipyridine ligands

Ge Song², Feng Ying Bai^{1*}, Yan Xie², Yong Heng Xing²

One new three-dimensional (3D) supramolecular longer-spanning azelaic acid (H_2aze) complex: $\text{Ni}(\text{aze})(4,4'\text{-bipy})(\text{H}_2\text{O})$ (4,4'-bipy = 4,4'-bipyridine) has been synthesized using hydrothermal conditions and characterized by elemental analysis, IR spectroscopy, UV spectrum, powder X-ray diffraction, TG analysis and single crystal X-ray diffraction. Structural analysis reveals that the title complex is six-coordinate and connected by the azelaic acid and 4,4'-bipy ligands to generate a 2D planar structure, further linked through the interaction of hydrogen bond of $\text{C-H}\cdots\text{O}$ to form a 3D supramolecular structure.



Synthesis, crystal structure and catalytic activity of 2-methoxycarbonylethyltin(II) dichloride hydroxide

Wenchao Ding, Han Lu, Wugai An, Xu Yingying, Laijin Tian*

2-methoxycarbonylethyltin(II) dichloride hydroxide, $\text{CH}_3\text{O}-\text{COCH}_2\text{CH}_2\text{SnCl}_2(\text{OH})$, has been synthesized by hydrolysis reaction and characterized by elemental analysis, FT-IR, ^1H NMR spectroscopy, and X-ray single crystal diffraction. Compound is a centrosymmetric dimer, and the tin atom approximates to octahedral geometry *via* an intramolecular carbonyl-to-tin coordination and hydroxobridging. The compound display high selectivity and good catalysis activity on the transesterification reaction of ethyl acetoacetate with an alcohol.