

Synthesis and Characterization of Silver(I) Saccharinate Complexes with Pyrazole and Imidazole Ligands: $[\text{Ag}(\text{sac})(\text{pz})(\text{H}_2\text{O})]_n$ and $[\text{Ag}(\text{sac})(\text{im})] \cdot 2\text{H}_2\text{O}$

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Two new silver(I) saccharinate (sac) complexes, $[\text{Ag}(\text{sac})(\text{pz})(\text{H}_2\text{O})]_n$ (**1**) and $[\text{Ag}(\text{sac})(\text{im})] \cdot 2\text{H}_2\text{O}$ (**2**) (pz = pyrazole and im = imidazole), have been prepared and characterized by elemental analysis, IR spectroscopy, thermal analysis and single crystal X-ray diffraction. Complexes **1** and **2** crystallize in the monoclinic space group $P2_1/c$ and triclinic space group $P\bar{1}$, respectively. The sac, pz and im ligands all are *N*-coordinated. In **1**, the $[\text{Ag}(\text{sac})(\text{pz})]$ units are bridged by aqua ligands to generate a one-dimensional helical chain, in which the silver(I) ions exhibit a distorted square-planar AgN_2O_2 coordination geometry. The polymeric chains are connected by $\text{N-H} \cdots \text{O}$ hydrogen bonds into sheets, which are further linked by aromatic $\pi(\text{pz}) \cdots \pi(\text{sac})$ stacking interactions into a three-dimensional supramolecular network. Complex **2** consists of individual molecules containing linearly coordinated silver(I) ions with a slightly distorted coordination of AgN_2 . The molecules interact with each other through hydrogen bonds and $\pi \cdots \pi$ interactions to form a three-dimensional supramolecular network.

Key words: Saccharinate, Pyrazole, Imidazole, Silver