

# A New One-Dimensional Coordination Polymer of Silver(I) with Bridging 2-(2-Aminoethyl)pyridine and Nitrate Ligands: $[\text{Ag}_2(\mu\text{-NO}_3)_2(\mu\text{-aepy})_2]_n$

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A new silver(I) nitrate complex of 2-(2-aminoethyl)pyridine (aepy),  $[\text{Ag}_2(\mu\text{-NO}_3)_2(\mu\text{-aepy})_2]_n$ , has been synthesized and characterized by elemental analysis, IR spectroscopy and single crystal X-ray diffractometry. Two silver(I) ions are doubly bridged by two bidentate aepy ligands forming dimeric building block  $[\text{Ag}_2(\mu\text{-aepy})_2]$  units with a  $\text{Ag}\cdots\text{Ag}$  distance of 3.0587(17) Å. These dimeric units are further doubly bridged by two nitrate ligands into a one-dimensional polymeric chain. The nitrate ligand exhibits an uncommon bidentate bridging mode of  $\text{Ag}\text{--}\text{ONO}\text{--}\text{Ag}$ . The title complex features a hydrogen bonded two-dimensional supramolecular framework formed *via*  $\text{N}\text{--}\text{H}\cdots\text{O}$  hydrogen bonds, involving the uncoordinated O atom of the nitrate ligand and amine hydrogen atoms of aepy. The thermal stability of the title complex was investigated using thermogravimetry and differential thermal analysis.

*Key words:* 2-(2-Aminoethyl)-pyridine, Nitrate, Silver(I), One-Dimensional Coordination Polymer, Crystal Structure