

[Me₄N]₃[(WOS₃)₂Ag]·MeCN – An Acetonitrile Solvate with Linear Complex Anions

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Dedicated to Professor Wolfgang Jeitschko on the occasion of his 70th birthday

The title compound was prepared by the reaction of [Me₄N]₂WOS₃ with AgCN in MeCN at room temperature and slow crystallisation in the refrigerator. It was characterized by IR and mass spectroscopy. It crystallizes in the orthorhombic space group *Pnma* (No. 62) with unit cell dimensions *a* = 19.648(7), *b* = 27.878(12), *c* = 11.494(3) Å, *Z* = 8. The crystal structure was determined from single crystal diffractometer data (Mo-K_α radiation) and refined to *R* = 0.077. The structure is composed of mixed double layers containing the linear trinuclear anion [(WOS₃)₂Ag]³⁻ and cations separated by a layer formed by cations and solvating acetonitrile molecules.

Key words: [Me₄N]₃[(WOS₃)₂Ag]·MeCN, Chalcogenide Complex, Mass Spectrum,
Crystal Structure