structure \( \{21/n\}, a=12.969(7), b=9.782(4), c=8.517(4) \), \( \text{\AA} \), \( b=106.31(4) \). The central unit is a onedimensional infinite chain \( [Na\text{CsGe}_4/Na\text{Na}] \). A further Cs atom stays without direct contact to the Ge-units and preserves again the composition \( \text{MX} \). The structure of this compound is represented by the formula \( \text{Cs[NaCsNa}/\text{Ge}_4] \).

References:

08.42 SYNTHESIS AND CRYSTAL SYMMETRY OF A MONOCLINIC MODIFICATION OF MoO_3.H_2O.

The authors synthesized another modification of molybdenum trioxide as an intermediate substance during thermal decomposition of some ammonium molybdates, the final product being anhydrous molybdenum trioxide. The compound has been reported in earlier literature, as having at least three different phases. The structure of the white modification or "a-molybdic acid", for instance, crystallizes with triclinic symmetry in the space group \( \text{P1} \) (Büschens and Krebs (1975), Acta Cryst. B30, 1795).

The authors synthesized another modification of the compound, by leaching of molybdenite concentrate with nitric acid. Single crystals growing in well-shaped white needles were obtained. The chemical composition of the crystals, as determined by usual analysis techniques, was found to be very close to stoichiometry.

The crystal data for MoO_3.H_2O were determined by recording three dimensional data on Weissenberg and Buergener precession photographs, using Ni-Filtered Cu-radiation. The unit cell is monoclinic, with \( a=9.720, b=7.753, c=7.179\AA, \beta=102.4^\circ \) and space group \( \text{P2}_1/\text{m} \).

The calculated density, assuming four formula units in the unit cell, is 4.24 g cm\(^{-3}\). The measured value resulted to be 4.20 g cm\(^{-3}\).

From our results we can conclude that the compound under study discloses another white isomer of MoO_3.H_2O.

References: