

Synthesis and Crystal Structure of the New Telluric Acid Adduct $(\text{RbCl})_3 \cdot \text{Te}(\text{OH})_6$

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The new telluric acid adduct $(\text{RbCl})_3 \cdot \text{Te}(\text{OH})_6$ was prepared by dissolving RbCl and $\text{Te}(\text{OH})_6$ in the molar ratio of 3 : 1 in deionized water at r. t. and slow evaporation of the solvent in air. The crystal structure of the colorless crystals was determined with single-crystal X-ray diffraction (trigonal space group: $R\bar{3}c$ (no. 167), $a = 14.4392(8)$, $c = 10.4301(16)$ Å, $Z = 6$). In $(\text{RbCl})_3 \cdot \text{Te}(\text{OH})_6$, the rubidium atom is surrounded by five chlorine and four oxygen atoms in form of an irregular tricapped trigonal prism. Each tellurium atom is octahedrally surrounded by six oxygen atoms. The $\text{Te}(\text{OH})_6$ octahedra and the RbCl_5O_4 polyhedra are linked to a dense three-dimensional network which is additionally strengthened by hydrogen bonds.

Key words: Rubidium Chloride, Telluric Acid, Crystal Structure