

## МИНЕРАЛОГИЧЕСКАЯ КРИСТАЛЛОГРАФИЯ

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### КРИСТАЛЛОХИМИЯ СЕЛЕНАТОВ С МИНЕРАЛОПОДОБНЫМИ СТРУКТУРАМИ. III. ГЕТЕРОПОЛИЭДРИЧЕСКИЕ ЦЕПОЧКИ В КРИСТАЛЛИЧЕСКОЙ СТРУКТУРЕ $[\text{Mg}(\text{H}_2\text{O})_4(\text{SeO}_4)]_2(\text{H}_2\text{O})$

S. V. KRIVOVICHEV. CRYSTAL CHEMISTRY OF SELENATES WITH MINERAL-LIKE STRUCTURES.  
III. HETEROPOLYHEDRAL CHAINS IN CRYSTAL STRUCTURE OF  $[\text{Mg}(\text{H}_2\text{O})_4(\text{SeO}_4)]_2(\text{H}_2\text{O})$

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Crystal structure of a new compound  $[\text{Mg}(\text{H}_2\text{O})_4(\text{SeO}_4)]_2(\text{H}_2\text{O})$  (monoclinic,  $P2_1/a$ ,  $a = 7.2549(12)$ ,  $b = 20.059(5)$ ,  $c = 10.3934(17)$  Å,  $\beta = 101.989(13)$ ,  $V = 1479.5(5)$  Å<sup>3</sup>) has been solved by direct methods and refined to  $R_1 = 0.059$  for 2577 unique observed reflections with  $|F_{hkl}| \geq 4\sigma|F_{hkl}|$ . The structure consists of the  $[\text{Mg}(\text{H}_2\text{O})_4(\text{SeO}_4)]_2^0$  chains, formed by alternating corner-sharing Mg octahedra and  $(\text{SeO}_4)^{2-}$  tetrahedra. The O atoms of the Mg octahedra that are shared with selenate tetrahedra are in a trans-orientation. The heteropolyhedral octahedral-tetrahedral chains are parallel to the  $c$  axis and undulate within the (010) plane. The adjacent chains are linked by hydrogen bonds involving  $\text{H}_2\text{O}$  molecules not bonded to the  $\text{M}^{2+}$  cations.