

Epidot z metabazaltov malužinského súvrstvia na lokalitách Lošonec a Sološnica v Malých Karpatoch (Slovensko)

Epidote from metabasalts of the Malužiná Formation from Lošonec and Sološnica in the Malé Karpaty Mts. (Slovakia)

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Abstract

Epidote was found in Permian rift-related metabasalts in two localities near Lošonec and Sološnica, Malé Karpaty Mountains, SW Slovakia. It occurs in association with calcite, albite, clinocllore and titanite and forms fillings of veins and also smaller scattered veinlets cutting basalts. Epidote is chemically and structurally similar on both localities. It has a relatively weak chemical zoning with Al-enriched core and Fe³⁺-rich rim of crystals. It is slightly enriched in Sr which contains up to 2.15 wt.%, 0.100 *apfu*. This enrichment in Sr is likely the result of geochemical properties of host rock, which locally contains up to 1000 ppm Sr. Lattice parameters of epidote from Lošonec ($a = 8.9067(8) \text{ \AA}$, $b = 5.6382(6) \text{ \AA}$, $c = 10.1724(9) \text{ \AA}$, $\beta = 115.33(1)^\circ$, $V = 461.72(4) \text{ \AA}^3$) and Sološnica ($a = 8.9075(8) \text{ \AA}$, $b = 5.6404(5) \text{ \AA}$, $c = 10.1742(8) \text{ \AA}$, $\beta = 115.39(1)^\circ$, $V = 461.78(7) \text{ \AA}^3$) also reflect the substitution of Sr for Ca. Mineral assemblage with epidote and associated minerals is likely a product of Alpine hydrothermal processes as a part of Alpine-type paragenesis.

Key words: epidote, electron microprobe, powder X-ray diffraction, metabasalts, Alpine-type vein, Malužiná formation