

Stopové prvky v křemenu z pegmatitu Věžná I (Česká Republika)

Trace-elements in quartz from the Věžná I-pegmatite (Czech Republic)

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BREITER K., SVOJTKA M., ACKERMAN L., ĎURIŠOVÁ J., MATOUŠKOVÁ Š., ŠVECOVÁ K., LOUN J. (2012) Stopové prvky v křemenu z pegmatitu Věžná I (Česká Republika). *Bull. mineral.-petrolog. Odd. Nár. Muz. (Praha) 20, 2, 218-222. ISSN 1211-0329.*

Abstract

Internal texture and contents of trace elements Al, B, Ba, Be, Cr, Fe, Ge, Li, Mn, Nb, P, Pb, Rb, Sn, Sr and Ti in quartz from the granite, graphic and core zone of the Věžná I pegmatite (SW Moravia, Czech Republic) were studied using panchromatic cathodoluminescence (CL) and laser-ablation ICP-MS (LA-ICP-MS), respectively. Quartz from all textural zones of the pegmatite is homogeneous and exhibit no CL. Aluminum contents increase from the granite zone to the quartz core in range 52 - 252 ppm, while the Ti contents increase from the granite to the graphic zone (26 - 34 ppm → 35 - 46 ppm), and subsequently decrease to the core (→ 15 - 31 ppm). Boron, Ba, Be, Cr, Ge, Fe, Mn, Nb, Pb, Rb, Sn and Sr contents reach their maximum in the pegmatite core; distribution of Li and P is heterogeneous. In general, the chemical composition of quartz from Věžná I pegmatite is well comparable with published data from the primitive (barren) pegmatites in Norway and beryl-columbite pegmatites in Borborema, Brazil.

Key words: quartz, trace elements, pegmatite, Věžná locality, SW Moravia