PŮVODNÍ PRÁCE/ORIGINAL PAPER

Alterace petalitu z pegmatitu v Nové Vsi u Českého Krumlova (Česká republika)

Alteration of petalite from pegmatite in Nová Ves near Český Krumlov (Czech Republic)

Jiří Zikeš

Ústav geologických věd, Přírodovědecká fakulta, Masarykova univerzita, Kotlářská 2, 611 37 Brno

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Abstract

The study of alteration products of petalite ($LiAlSi_4O_{10}$) from granitic pegmatite in Nová Ves near Český Krumlov (Czech Republic) shows that petalite disintegrates into fine-grained aggregate of spodumene ($LiAlSi_2O_6$) + quartz (SiO_2) following the equation Pet → Spd + 2Qtz. Apart from spodumene and quartz no other products of the alteration have been found except for small inclusions of petalite mostly in quartz. They could be a relic of the primary petalite or a newly formed petalite II. The mineral assemblage and textural relation establish a pressure-temperature path for the crystallization of the Nová Ves petalite, and estimated pressure of the pegmatite crystalization is approximately 2 - 2.5 kbar, which corresponds with the depth of about 6 - 7 km. The suggested pressure-temperature path for crystallization was compared with data published for the pegmatites: Tanco, SE Manitoba, Harding, New Mexico, Bikita, Zimbabwe, and Covas de Barroso, Portugal.

Key words: *lithium-bearing pegmatite, petalite, spodumene, alteration, Nová Ves near Český Krumlov, Czech Republic*

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