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Minerály pegmatitových hnízd z okolí Jablonce nad Nisou (krkonošsko-jizerský pluton) - část I. silikáty

Minerals of pegmatite nests from the surroundings of Jablonec nad Nisou (Krkonoše-Jizera Pluton) - part I. Silicates

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Abstract

We have studied silicate minerals in pegmatite nests from the Tanvald Granite (4 sites) and the Liberec Granite (1 site) in the vicinity of Jablonec n. Nisou, situated within the Variscan Krkonoše-Jizera Pluton. They contain major quartz, K-feldspar and plagioclase (An_{0-11}), subordinate biotite, muscovite and locally schorl. Accessory phases include garnet (spessartine-almandine), andalusite, Hf-rich zircon and thorite. In addition, zinnwaldite was found in a single sample. The studied pegmatites show simple internal structure including aplitic, granitic and coarse-grained "blocky" units; the central zone commonly contains miarolitic cavity which is sometimes filled by tourmaline. The mineral composition and fractionation degree largely reflect those of the host granite; the more fractionated are pegmatites hosted by the Tanvald Granite. The pegmatite nest from Nová Ves nad Nisou II exhibits distinct mineral assemblage with zinnwaldite, pure albite and lack of biotite and garnet, therefore we suggest here a substantial modification of mineral assemblage by superimposed processes. Moreover, tourmaline (schorl) composition with local increasing of Mg toward rim indicates a possible contamination derived from adjacent rocks during tourmaline crystallization.

Key words: *Tanvald granite, Liberec granite, Krkonoše-Jizera pluton, granitic pegmatite, zinnwaldite, schorl, garnet*

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