

# Pegmatity s molybdenitem u Skalska na Jílovsku, Česká republika - historie, geologie a mineralogie

## The pegmatites with molybdenite near Skalsko on the Jílové area, Czech Republic - history, geology and mineralogy

PETR MORÁVEK<sup>1)</sup>, JIŘÍ LITOCHEB<sup>2)</sup>, JIŘÍ SEJKORA<sup>2)</sup> A RADEK ŠKODA<sup>3)</sup>

<sup>1)</sup> 1. máje 296, 254 01 Jílové u Prahy

<sup>2)</sup> Národní muzeum, Václavské náměstí 68, 115 79 Praha 1

<sup>3)</sup> Přírodovědecká fakulta, Masarykova Universita, Kotlářská 2, 611 37 Brno

MORÁVEK P., LITOCHEB J., SEJKORA J., ŠKODA R. (2010): Pegmatity s molybdenitem u Skalska na Jílovsku, Česká republika - historie, geologie a mineralogie. - *Bull. mineral.-petrolog. Odd. Nár. Muz. (Praha)* **18/2**, 1-22. ISSN: 1211-0329.

### Abstract

This paper summarizes historical knowledge of pegmatite occurrences in the vicinity of the Skalsko near Jílové u Prahy (central Bohemia, Czech Republic) and presents the results of a new field and laboratory research. The granite pegmatites near Skalsko were subject of intensive mining of feldspar for ceramic industry especially during the 19th century. The pegmatites are spatially and genetically bound to western part of Hercynian intrusion of biotitic granodiorite of the Požáry type (I - type granite), which forms a part of Central Bohemian Plutonic Complex. Pegmatites, similiary as aplites and aplitic granites, usually form subhorizontal embedded bodies with zonal structure with a predominance of granitic and blocky units. A part of pegmatite veins is characterized by anomalous accumulations of molybdenite (average content of about 0.19 wt. % Mo) and thus represents a unique type of Mo ores in the Bohemian Massif, although having a limited extent.

Pegmatites have relatively simple mineral composition: K-feldspar, albite, quartz, molybdenite, biotite, occasionally muscovite, apatite and rarely tourmaline. The presence of coarse- and fine-grained aggregates of molybdenite and thinly columnar aggregates of apatite is characteristic. The dominant older K-feldspar (with content up to 3.97 wt. % BaO) is intensive replaced by younger much Ba-richer (4.43 - 9.81 wt. % BaO) K-feldspar. Ba-rich K-feldspar also contains very tiny barite grains. The occurrence of abundant monazite-(Ce) and xenotime-(Y) grains (up to 100  $\mu\text{m}$  in size) is characteristic for aggregates of fluorapatite (with various REE contents). The rare zonal garnet corresponds to Mn-rich almadine with higher content of spessartite component (42 - 43 mol. %) in marginal parts of its aggregates. Biotite (annite) contains higher concentration of Ba (about 0.4 wt. % BaO) and low F (about 0.5 wt. %).

The flat to dome embedded pegmatite bodies are formed by predominant older granitic and younger block units, sometimes in asymmetrically repeated positions. The structure of pegmatite bodies indicates their origin in flat fissures with an extense character; sometimes with fuzzy transition between magmatic and hydrothermal stages. Older authors mostly assumed the molybdenite origin in younger hydrothermal stage (and only spatial relation of molybdenite and pegmatites); the results of this new study confirmed that molybdenite is an integral part of pegmatites. Pegmatites from the vicinity of Skalsko has some features of NYF pegmatites (low P in feldspars, elevated Y in garnet) with specified molybdenite enrichment.

**Key words:** *granitic pegmatites, history, geology, genesis, mineralogy, molybdenite, K-feldspar, apatite, Central Bohemian Plutonic Complex, Požáry type, Skalsko, the Jílové area, central Bohemia, Czech Republic*