

PŮVODNÍ PRÁCE/ORIGINAL PAPER

Cr-Ni muskovit v listvenite z Muránskej Zdychavy pri Revúcej (Slovenské rudohorie, stredné Slovensko) Cr-Ni rich muscovite in listvenite from Muránska Zdychava near Revúca (Slovenské rudohorie Mountains, central Slovakia)

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Abstract

Unique chromian-nickeloan muscovite occurs in magnesite-dolomite-quartz listvenite rock (carbonatized and sili-cified serpentinite) from Muránska Zdychava near Revúca (Veporic Superunit, Slovenské rudohorie Mts., central Slo-vakia). Muscovite forms anhedral aggregates and veinlets in quartz and carbonate groundmass, up to 20 µm across. It shows emerald-green colour, electron-microprobe analyses revealed 9.5 to 12 wt. % Cr₂O₃ (0.52 - 0.67 *apfu*) and 2.1 to 4.5 wt. % NiO (0.11 - 0.25 *apfu*). The average crystallochemical formula of the Cr,Ni-rich muscovite is close to K_{0.65}(Al_{1.13}Cr_{0.59}Ni_{0.19}Mg_{0.16}Fe_{0.05})_{Σ2.12}(Si_{3.33}Al_{0.67})_{Σ4.00}(OH)_{1.90}F_{0.10}. The Ni contents belong to the highest concentrations of this element ever obtained on a mineral of mica group. The Cr-Ni muscovite is associated with accessory chromite, py-rite, and Ni-sulphide minerals (pentlandite, violarite, ullmannite and millerite). The Cr,Ni-rich muscovite and associated minerals of listvenite originated by hydrothermal-metasomatic overprint on primary, Lower Paleozoic metaultrabasic rocks during Alpine (Cretaceous) orogenesis.

Key words: Cr and Ni rich muscovite, listvenite, Veporicum, Slovenské rudohorie Mountains, Slovak Republic

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