Sfalerit z ložiska Zlaté Hory - Východ (Česká republika) se zřetelnou UV luminiscencí a jeho minerální asociace

Sphalerite from the deposit Zlaté Hory - East (Czech Republic) with distinct UV fluorescence and its mineral association

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Abstract

A UV fluorescent sphalerite was found in the ore gangue from the deposit Zlaté Hory - East in the Jeseníky Mountains (Czech Republic). The ore gangue are represented by muscovite quartzite rich in Ba-feldspar (celsiane) and sulfide minerals, mainly of pyrite. Pyrite is accompanied with sphalerite, chalcopyrite, minor galena and tennantite. Sphalerite forms white to grey grains up to 12 mm in size, shows distinct orange-yellow fluorescence under short- and longwave UV-radiation and intensive blue cathodoluminiscence. Its refined unit-cell parameter *a* 5.4095(3) Å is close to the synthetic pure cubic ZnS. Very minor contents of Cd and Mn (up to 0.002 *apfu*) and real absence of Fe component (only up to 0.0008 *apfu*) are characteristic for its chemical composition.

Key words: *sulfide ores, sphalerite, celsiane, UV fluorescence, Zlaté Hory ore district, Czech Republic*