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A SECOND OCCURRENCE OF STIBIVANITE: BUCA DELLA VENA MINE (APUAN ALPS), ITALY

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Stibivanite, first described by Kaiman *et al.* (1980) from the Lake George antimony deposit, New Brunswick, was found in the Buca della Vena iron mine in the Apuan Alps. Buca della Vena is a small deposit of hematite and magnetite in a microcrystalline mass of barite, that occurs at the contact between phyllite and dolomite (Carmignani *et al.* 1977). Between the barite and enclosing rocks are small cavities that contain rare iron–antimony minerals: schafarzikite, versiliaite and apuanite (Mellini *et al.* 1979). Within the same cavities, atop these minerals, are small lath-shaped green crystals of stibivanite. The crystals are very rare; the largest ones are 1 mm long, 0.1 mm wide and 0.01 mm thick (Fig. 1). Other minerals in the cavities are pyrite, tetrahedrite, seligmannite, rutile, anatase, barite, quartz, allanite, beryl and derbylite.

Stibivanite was identified by an X-ray powder-diffraction pattern obtained with a 114.6 mm Gandolfi camera; the data obtained from this pattern are in perfect agreement with those reported by Kaiman *et al.* (1980).

Cell dimensions and the $C2/c$ space group were confirmed by Weissenberg photographs. Least-squares refinement of the X-ray data, as measured on the powder pattern, gave: a 18.060(10), b 14.808(5), c 5.502(5) Å, β 95.7(5)°, in good agreement with the values reported by Kaiman *et al.* (1980).

A qualitative analysis by energy dispersion of a small crystal fragment unequivocally confirmed that vanadium and antimony are the only cations present with $Z > 10$.

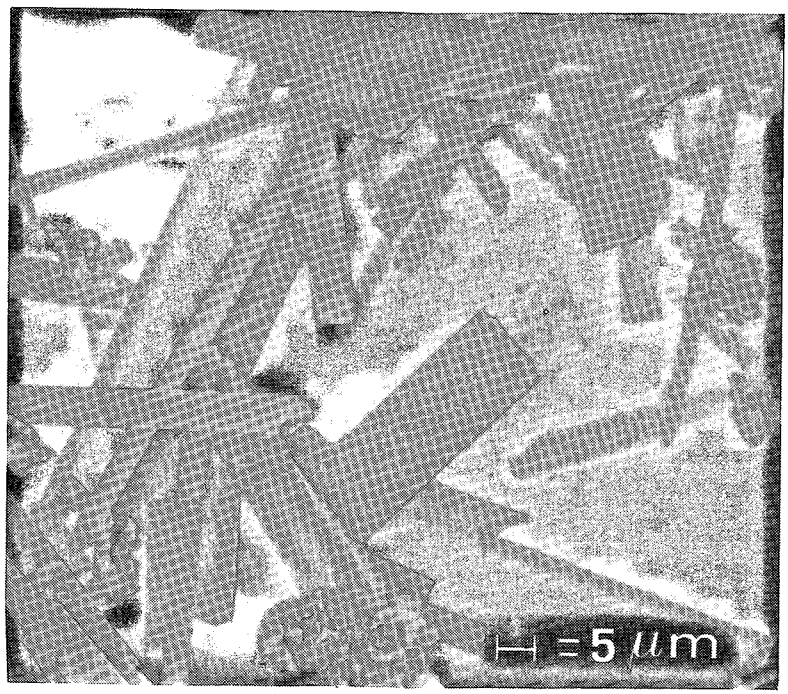

FIG. 1. Scanning electron-microprobe secondary image of stibivanite crystals.

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