
MUSEUM HISTORICAL COLLECTIONS TO BE REVISITED: REINSTATEMENT OF THE NAME “BRANCHITE” AFTER TWO CENTURIES.

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During a study of the activity of Paolo Savi (1798 - 1871) as director of the Museum of Natural History of the University of Pisa, a note from 1839 on the description of a new organic mineral, called "branchite", was found. It was possible to examine the samples of "branchite" studied by Paolo Savi in the late 1830s, and a comprehensive investigation was undertaken by single crystal X-ray diffraction. Their isotypic relationship to hartite, C₂₀H₃₄, described in 1841, was demonstrated. The refined parameters of the unit cell were $a = 11.4116(7)$, $b = 20.9688(12)$, $c = 7.4100(4)$ Å, $\alpha = 93.947(2)$, $\beta = 100.734(2)$, $\gamma = 80.524(2)^\circ$, $V = 1716.99(17)$ Å³, $Z = 4$; space group P1. The crystal structure was resolved and refined to $R1 = 0.0423$ for 13512 reflections with $F_o > 4\sigma(F_o)$ and 1266 refined parameters. Since branchite has priority over hartite, reinstatement of the former name and discrediting of the latter was approved by the IMA Commission on New Minerals, Nomenclature, and Classification. Branchite is one of the few mineral species formed by C and H only reported in the official IMA mineral list. Type locality of branchite is Botro di Lavajano, Monte Vaso, Chianni, Pisa, Italy; the neotype material is preserved in the Museum of Natural History of the University of Pisa under catalog number 14426.