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ФОРМИКАИТ $\text{Ca}(\text{HCO}_2)_2$ — НОВЫЙ МИНЕРАЛ¹

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A. E. ZADOV. FORMICAITE $\text{Ca}(\text{HCO}_2)_2$, A NEW MINERAL

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A new mineral, analog of synthetic calcium β -formiate was found out in kurchatovite-sakhaite ores in Solondo boron deposit (Buryatia) and in Novofrolovskoye copper deposit (the Urals) together with calcium borates pentahydroborite, frolovite, fedorovskite, calcite, solongoite, turneaureite and johnbaumite. Formicaite forms tabular crystals up to $30 \times 30 \times 5$ μm and their aggregates. Colour is white of light-blue, streak white, hardness on Mohs for aggregates is 1, cleavage (100) perfect. Uniaxial, positive, ω 1.553 (2), ϵ 1.573 (2). $D_{\text{meas}} = 1.9$ (1) g/cm^3 , $D_{\text{calc}} = 1.93$ (2) g/cm^3 . Tetragonal, space group $P4_12_12$, $a = 6.77$ (1) \AA , $c = 9.46$ (1) \AA , $V = 434$ (1) \AA^3 , $Z = 4$. The strongest lines of the powder diffraction pattern [d , \AA (I %)] are: 5.54 (90) (011), 3.40 (100) (200), 3.19 (60) (021), 2.859 (80) (013), 2.196 (70) (031), 2.046 (50) (032), 1.947 (60) (132). Chemical composition (electron probe; for H and C gas chromatography of combustion products, mass %): Ca 29.80, Na 0.13, Mn 0.23, K 0.10, H 1.90, C 20.28, O (theoretical for $\text{CaH}_2\text{C}_2\text{O}_4$) 49.19, total 101.63. The empirical formula is $(\text{Ca}_{0.88}\text{Na}_{0.01}\text{H}_{0.23})(\text{HCO}_2)_2$. The idealized formula is $\text{Ca}(\text{HCO}_2)_2$. Formicaite and synthetic β -calcium formate have practically identical X-ray powder diffraction patterns with the same strongest lines as well as identical IR spectra and other physical characteristics. Type material is deposited at the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow.