Bütschliite

\( \text{K}_2\text{Ca(CO}_3\text{)}_2 \)

Crystal Data: Hexagonal. Point Group: \( \text{3} \overline{2}/m \). As microscopic barrel-shaped crystals, elongated along [0001], in earthy to porcelaneous masses.

Physical Properties: Hardness = n.d. \( \text{D(meas.)} = \text{n.d.} \). \( \text{D(calc.)} = 2.607 \)

Optical Properties: Semitransparent. Color: Grayish yellow, brownish gray, may be pale green from admixture. Optical Class: Uniaxial (−). \( \omega = 1.595 \) \( \epsilon = 1.455 \)

Cell Data: Space Group: \( \text{R} \overline{3}m \). \( a = 5.3822(4) \) \( c = 18.156(2) \). \( Z = 3 \)

X-ray Powder Pattern: Synthetic. (ICDD 25-625). 2.862 (100), 3.02 (35), 1.690 (20), 1.641 (20), 1.044 (20), 0.933 (20), 2.071 (14)

Chemistry: (1) Identification depends primarily on correspondence with the X-ray powder pattern of synthetic material.

Polymorphism & Series: Dimorphous with fairchildite.

Occurrence: Formed in fused wood-ash clinkers in partly burned trees.

Association: Calcite, fairchildite.

Distribution: In the USA, many occurrences in forests from trees struck by lightning. Some studied are: from Kanabowmits Canyon, Grand Canyon National Park, Coconino Co., Arizona; in the Kaniksu National Forest, near Coolin, Bonner Co., Idaho; at Long Shop, Montgomery Co., Virginia. From near Eganville and Deseronto, Ontario, Canada.

Name: To honor Johann Adam Otto Bütschli (1848–1920), Professor of Zoology at the University of Heidelberg, Heidelberg, Germany, who studied double salts of potassium and calcium.
