

Crystal Data: Tetragonal. *Point Group:* 4/*m*. As crystals, typically tabular on {001} or pyramidal, to 5 mm; dominant forms are {001}, {111}, {201}, and {110}; also as radial clusters, almost lichenlike, in joints in the rock.

Physical Properties: *Cleavage:* {001}, perfect. *Tenacity:* Very flexible; easily deformed. Hardness = 2.5 D(meas.) = 2.810 D(calc.) = 2.81 Soluble in H₂O; alters to eriochalcite on exposure to air.

Optical Properties: Transparent. *Color:* Deep blue with greenish portions; cendre blue to Italian blue, becoming greener with atacamite inclusions; blue in transmitted light. *Streak:* Pale blue. *Luster:* Vitreous, pearly on cleavage surfaces; dull when altered. *Optical Class:* Uniaxial (-). *Pleochroism:* Strong; *O* = deep cendre blue; *E* = pale greenish yellow. $\omega = 1.691\text{--}1.692$ $\epsilon = 1.640\text{--}1.641$

Cell Data: *Space Group:* P4/*n*. *a* = 6.19 *c* = 5.61 *Z* = 2

X-ray Powder Pattern: Quetena, Chile.

5.59 (10), 3.08 (8), 2.54 (8), 1.952 (7), 4.35 (6), 1.655 (6), 4.13 (5.5)

Chemistry:

| | (1) | (2) |
|--------------------------------|--------|--------|
| Cu | 34.94 | 35.73 |
| B ₂ O ₄ | 23.35 | 24.07 |
| Fe ₂ O ₃ | 0.35 | |
| MgO | 0.05 | |
| CaO | 0.05 | |
| Na ₂ O | 0.40 | |
| Cl | 19.47 | 19.94 |
| H ₂ O | 19.60 | 20.26 |
| SO ₃ | 0.05 | |
| insol. | 1.84 | |
| Total | 100.10 | 100.00 |

(1) Quetena, Chile. (2) CuB(OH)₄Cl.

Occurrence: Of secondary origin, in a leached zone above massive iron sulfates (Quetena, Chile).

Association: Atacamite, eriochalcite (Quetena, Chile); starkeyite (near Taltal, Chile).

Distribution: In Chile, from Quetena, west of Calama, and near Taltal, Antofagasta.

Name: For Dr. Mark Chance Bandy (1900–1963), American mining engineer, mineralogist, and mineral collector, who first collected the mineral.

Type Material: Harvard University, Cambridge, Massachusetts, 94625, 97381; National Museum of Natural History, Washington, D.C., USA, C5459.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 373–374. (2) Collin, R.L. (1951) The crystal structure of bandylite, CuCl₂•CuB₂O₄•4H₂O. Acta Cryst., 4, 204–209. (3) Ross, V. and J.O. Edwards (1959) Tetrahedral boron in teepelite and bandylite. Amer. Mineral., 44, 875–877.