

Crystal Data: Tetragonal. *Point Group:* $4/m\ 2/m\ 2/m$. In massive crusts.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = \text{n.d.}$ $D(\text{calc.}) = [6.40]$

Optical Properties: Semitransparent. *Color:* Black.

Optical Class: Uniaxial. $\omega = \text{n.d.}$ $\epsilon = \text{n.d.}$

Cell Data: *Space Group:* $P4/mmm$ (synthetic). $a = 3.802$ $c = 4.836$ $Z = 2$

X-ray Powder Pattern: Boundary Falls, Canada.

2.98 (10), 1.601 (9), 1.799 (7), 2.679 (6), 1.491 (6b)

Chemistry: (1) Boundary Falls, Canada; X-ray spectrographic analysis detected only tin and a trace of iron.

Occurrence: As an alteration product on tin pannikins immersed in a river (Boundary Falls, Canada); replacing herzenbergite replacing cassiterite (Maria-Teresa mine, Bolivia); on tin ingots from the cargo of a ship wrecked in a Red Sea cove (Sharm Abhur, Saudi Arabia).

Association: Hydroromarchite (Boundary Falls, Canada); abhurite, kutnohorite, aragonite (Sharm Abhur, Saudi Arabia).

Distribution: At Boundary Falls, Winnipeg River, Ontario, Canada, where tin pannikins had been dropped by a voyageur between 1801 and 1821. From the Maria-Teresa mine, near Huari, between Oruro and Uyuni, Bolivia. In a cove of the Red Sea known as Sharm Abhur, about 30 km north of Jiddah, Saudi Arabia.

Name: For the Royal Ontario Museum ARChEology Department.

Type Material: Royal Ontario Museum, Toronto, Canada, M28744.

References: (1) Organ, R.M. and J.A. Mandarino (1971) Romarchite and hydroromarchite, two new stannous minerals. *Can. Mineral.*, 10, 916 (abs.). (2) (1972) *Amer. Mineral.*, 57, 1555–1556 (abs. ref. 1).