

Crystal Data: Hexagonal. *Point Group:* 32. As hexagonal pyramids bounded by {22 $\bar{4}$ 1}, rarely dipyramidal, striated || [0001], faces divided by slightly re-entrant, irregular sutures, to 1 mm.

Physical Properties: *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 4–4.5
D(meas.) = 3.60(2) D(calc.) = 3.62 Fluoresces pale to bright orange under LW UV.

Optical Properties: Transparent to translucent. *Color:* Colorless, smoky white to pale gray; colorless in thin section. *Streak:* White. *Luster:* Vitreous.

Optical Class: Uniaxial (-). $\omega = 1.672(3)$ $\epsilon = 1.527(3)$

Cell Data: *Space Group:* P321. $a = 8.692(3)$ $c = 6.148(4)$ $Z = 3$

X-ray Powder Pattern: Minerva No. 1 mine, Illinois, USA; essentially identical to alstonite. 3.550 (100), 2.510 (67), 2.048 (21), 6.15 (18), 1.943 (18), 1.853 (15), 4.35 (11)

Chemistry:

	(1)	(2)	
CO ₂	[30.0]	[30.1]	29.59
CaO	18.8	19.42	18.86
SrO	5.2	0.50	
BaO	45.6	51.23	51.55
Total	[99.6]	[101.25]	100.00

(1) Minerva No. 1 mine, Illinois, USA; by electron microprobe, CO₂ calculated for stoichiometry; corresponds to Ba_{0.87}Ca_{0.98}Sr_{0.15}(CO₃)_{2.00}. (2) Kedrovyi massif, Russia; by electron microprobe, CO₂ calculated for stoichiometry; corresponds to Ba_{0.98}Ca_{1.01}Sr_{0.01}(CO₃)_{2.00}. (3) BaCa(CO₃)₂.

Polymorphism & Series: Trimorphous with alstonite and barytocalcite; forms a series with olekminskite.

Occurrence: A rare mineral in low-temperature hydrothermal Pb–Zn deposits.

Association: Calcite, alstonite, fluorite, sphalerite (Minerva No. 1 mine, Illinois, USA); olekminskite, calcite, barite, ankerite, ancylite-(Ce), narsarsukite, sphalerite, galena (Kedrovyi massif, Russia).

Distribution: From the Minerva No. 1 and Annabel Lee mines, Cave-in-Rock, Hardin Co., Illinois, USA. At the Kedrovyi massif, five km southeast of the Murun massif, Aldan Shield, Sakha, Russia.

Name: From the Greek for *near* and its morphological and chemical relation with *alstonite*.

Type Material: Canadian Geological Survey, Ottawa, 13380; Royal Ontario Museum, Toronto, Canada; National Museum of Natural History, Washington, D.C., USA, 145915.

References: (1) Roberts, A.C. (1979) Paralstonite, a new mineral from the Minerva No. 1 mine, Cave-in-Rock, Illinois. Geological Survey of Canada Paper 79-1C, 99–100. (2) (1979) Amer. Mineral., 64, 1332 (abs. ref. 1). (3) Effenberger, H. (1980) Die Kristallstruktur des Minerals Paralstonit. Neues Jahrb. Mineral., Monatsh., 353–363 (in German with English abs.). (4) (1981) Amer. Mineral., 66, 219 (abs. refs. 1, 2, and 3). (5) Konev, A.A., E.I. Vorobev, L.F. Piskunova, Z.F. Ushchapovskaya, and G.A. Tichonova (1991) Olekminskite Sr(Sr, Ca, Ba)(CO₃)₂ – a new mineral and the new isomorphous series olekminskite-paralstonite. Zap. Vses. Mineral. Obsch., 120(3), 89–96 (in Russian).