

Crystal Data: Monoclinic. *Point Group:* 2/m. As crystals to 350 μm in aggregates.

Physical Properties: *Cleavage:* Good on {100} and {010}. *Fracture:* Conchoidal.
Tenacity: Brittle. *Hardness* = ~6.5 *D(meas.)* = n.d. *D(calc.)* = 2.944

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous.
Optical Class: Biaxial (-). $\alpha = 1.608(2)$ $\beta = 1.629(2)$ $\gamma = 1.635(2)$ $2V(\text{meas.}) = 54.4(5)^\circ$
 $2V(\text{calc.}) = 55.6^\circ$ *Dispersion:* None. *Orientation:* $X = b$, $Y \approx a$, $Z \approx c$. *Pleochroism:* Colorless to very pale gray. *Absorption:* Barely noticeable, $X > Y = Z$.

Cell Data: *Space Group:* $P2_1/n$. $a = 8.6996(3)$ $b = 8.0994(3)$ $c = 15.217(1)$ $\beta = 90.188(6)^\circ$ $Z = 12$

X-ray Powder Pattern: NWA 1934 CV3 carbonaceous chondrite meteorite.
2.9771 (100), 2.4101 (40), 2.5273 (35), 1.4587 (33), 1.5279 (31), 4.694 (28), 1.5830 (23)

Chemistry:	(1)
Al ₂ O ₃	63.50
CaO	35.73
Total	99.23

(1) NWA 1934 CV3 carbonaceous chondrite meteorite; average of 7 electron microprobe analyses supplemented by Raman spectroscopy; corresponds to Ca_{1.02}Al_{1.99}O₄.

Occurrence: Likely formed by condensation or crystallization from a melt in the solar nebula, now a Ca-Al-rich refractory inclusion in a carbonaceous chondrite meteorite. One of the earliest minerals formed in the solar system.

Association: Perovskite, gehlenite, hercynite, Cl-bearing mayenite, hexamolybdenum.

Distribution: From the NWA 1934 CV3 carbonaceous chondrite meteorite.

Name: Honors Alexander N. *Krot* (b. 1959), a cosmochemist, University of Hawaii, USA, for his contributions to the understanding of early Solar System processes.

Type Material: National Museum of Natural History, Washington, D.C. (USNM 7590) and the Natural History Museum of Los Angeles County, Los Angeles, California (63275), USA.

References: (1) Ma, C., A.R. Kampf, H.C. Connolly Jr., J.R. Beckett, G.R. Rossman, S.A. Sweeney Smith, and D.L. Schrader (2011) Krotite, CaAl₂O₄, a new refractory mineral from the NWA 1934 meteorite. *Amer. Mineral.*, 96, 709-715.