

Crystal Data: Monoclinic. *Point Group:* 2/m. As aggregates of irregular 2-12 μm grains.
Twinning: None observed.

Physical Properties: *Cleavage:* n.d. *Tenacity:* n.d. *Fracture:* n.d. Hardness = n.d.
D(meas.) = n.d. D(calc.) = 3.38

Optical Properties: Transparent. *Color:* Light gray in thin-section. *Streak:* n.d. *Luster:* n.d.
Optical Class: [Biaxial]. *n* (calc.) = 1.736

Cell Data: *Space Group:* C2/c. *a* = 9.884 *b* = 8.988 *c* = 5.446 *β* = 105.86° *Z* = 4

X-ray Powder Pattern: Allende meteorite.

3.039 (100), 2.564 (47), 2.619 (40), 2.989 (31), 2.600 (26), 1.676 (20), 2.943 (18)

Chemistry:	(1)	(2)
SiO ₂	26.24	25.45
CaO	23.55	23.75
Al ₂ O ₃	21.05	21.59
Sc ₂ O ₃	14.70	29.21
TiO ₂	8.66	
MgO	2.82	
ZrO ₂	2.00	
Y ₂ O ₃	0.56	
V ₂ O ₃	0.55	
FeO	0.30	
Dy ₂ O ₃	0.27	
Gd ₂ O ₃	0.13	
Er ₂ O ₃	0.08	
Total	100.91	100.00

(1) Allende meteorite; average electron microprobe analysis supplemented by Raman spectroscopy, total Ti was partitioned between Ti³⁺ and Ti⁴⁺ to make ideal stoichiometry; corresponds to Ca_{0.99}(Sc_{0.50}Ti³⁺_{0.16}Mg_{0.16}Ti⁴⁺_{0.10}Zr_{0.04}V³⁺_{0.02}Fe²⁺_{0.01}Y_{0.01})_{Σ=1.00}(Si_{1.03}Al_{0.97})_{Σ=2.00}O₆. (2) CaScAlSiO₆.

Mineral Group: Clinopyroxene group.

Occurrence: Likely formed through high-temperature condensation in the solar nebula, followed by melting and crystallization in Ca-,Al-rich refractory inclusions in a meteorite.

Association: Spinel, perovskite.

Distribution: In the Allende meteorite.

Name: Honors Andrew M. *Davis* (b. 1950), Professor of Cosmochemistry at the University of Chicago, USA for his contributions to meteorite research.

Type Material: National Museum of Natural History, Washington D.C., USA (USNM 7555).

References: (1) Ma, C. and G.R. Rossman (2009) Davisite, CaScAlSiO₆, a new pyroxene from the Allende meteorite. *Amer. Mineral.*, 94, 845-848.