

Crystal Data: Cubic. *Point Group:* $4/m\bar{3}2/m$. As inclusions to 16 μm in an 81 mg octahedral diamond with frosted surfaces and trigon etching features.

Physical Properties: *Cleavage:* n.d. *Tenacity:* n.d. *Fracture:* n.d. Hardness = n.d.
D(meas.) = n.d. D(calc.) = 4.20

Optical Properties: *Color:* n.d. *Streak:* n.d. *Luster:* n.d.
Optical Class: n.d.

Cell Data: *Space Group:* $Pm\bar{3}m$. $a = 3.591(2)$

X-Ray Diffraction Pattern: Calculated pattern.
2.539 (100), 1.795 (84), 2.073 (50), 1.270 (48), 1.466 (43), 0.960 (22), 1.136 (19)

Chemistry:	(1)
Ca	18.27
K	8.71
Na	2.6
Fe	4.7
Al	3.32
Mg	2.43
Cr	1.8
Ti	0.30
Mn	0.23
Si	42.2

(1) Orapa kimberlite pipe, Orapa, Botswana; average atomic % by ICP-MS and laser ablation system and IR spectroscopy; corresponds to $(\text{Ca}_{0.43}\text{K}_{0.20}\text{Na}_{0.06}\text{Fe}_{0.11}\text{Al}_{0.08}\text{Mg}_{0.06}\text{Cr}_{0.04})_{\Sigma=0.98}(\text{Si}_{1.0}\text{Al}_{0.00})\text{O}_3$.

Mineral Group: Perovskite group.

Occurrence: As remnant inclusions in a IaAB-type diamond. The first known high-pressure silicate mineral recovered from the lower mantle.

Association: Carbonaceous α -iron, wüstite, ilmenite, iron, ice-VII.

Distribution: From the Orapa kimberlite pipe, Orapa, Botswana.

Name: Honors *Dave* (Ho-kwang) *Mao* for his contributions to experimental geophysics and leadership in high-pressure mineral physics that have had a direct impact on understanding deep-Earth chemical and physical processes and Earth's evolutionary history.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (74541).

References: (1) Tschauner, O., S. Huang, S. Yang, M. Humayun, W. Liu, S.N. Gilbert Corder, H.A. Bechtel, J. Tischler, and G.R. Rossman (2021) Discovery of davemaoite, CaSiO₃-perovskite, as a mineral from the lower mantle. *Science*, 374(6569), 891-894. (2) (2022) *Amer. Mineral.*, 107, 778 (abs. ref. 1). (3) Miyawaki, R., F. Hatert, M. Pasero, and S.J. Mills (2020) IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) - Newsletter 58. *Eur. J. Mineral.*, 32, 650.