

Crystal Data: Hexagonal. *Point Group:* $\bar{3} 2/m, 3m,$ or $32.$ As thin bands a few μm wide in caswellsilverite, also as individual grains, to 250 μm .

Physical Properties: *Cleavage:* Basal, perfect (synthetic); distinct parting on $\{h0l\}.$ Hardness = n.d. VHN = 41.8–90.8 on $\{0001\}$ (15 g load) (synthetic). D(meas.) = 2.70 (synthetic). D(calc.) = 2.74

Optical Properties: Opaque. *Color:* In reflected light, gray in air, bluish gray in oil. *Luster:* Submetallic (synthetic).

Optical Class: Uniaxial (–). *Pleochroism:* Distinct; white with yellowish tint to light gray with bluish or greenish tint. *Anisotropism:* Strong.

R_1 – R_2 : (400) —, (420) 15.4–17.0, (440) 16.0–17.4, (460) 16.6–19.3, (480) 16.5–19.3, (500) 16.4–19.4, (520) 16.2–19.3, (540) 16.0–19.3, (560) 15.8–19.3, (580) 15.5–19.3, (600) 15.2–19.2, (620) 15.2–19.1, (640) 15.0–19.0, (660) 15.1–19.1, (680) 15.1–19.4, (700) 14.8–19.0

Cell Data: *Space Group:* $R\bar{3}m, R3m,$ or $R32.$ $a = 3.32(1)$ $c = 26.6(1)$ $Z = 3$

X-ray Powder Pattern: Synthetic.

8.85 (vsb), 2.81 (mb), 2.53 (mb), 1.66 (mb), 4.43 (wb), 2.21 (vwwb)

Chemistry:

	(1)	(2)	(3)
Na	5.10	4.95	4.89
Cr	36.3	36.2	36.87
Ti	0.17		
Mn	0.17		
S	45.5	44.9	45.47
H ₂ O	14.3	13.9	12.77
Total	101.5	100.0	100.00

(1) Norton County meteorite; by electron microprobe, average values; corresponds to Na_{0.31}Cr_{0.98}S_{2.00}•1.20H₂O. (2) Synthetic schöllhornite; by electron microprobe, corresponds to Na_{0.31}Cr_{0.99}S_{2.00}•1.10H₂O. (3) Na_{0.3}CrS₂•H₂O.

Occurrence: In an enstatite achondrite meteorite with other chromium-rich minerals, probably formed by terrestrial weathering of caswellsilverite.

Association: Caswellsilverite, daubréelite, titanioan troilite, ferromagnesian alabandite, oldhamite, kamacite, perryite.

Distribution: Found in the Norton County enstatite achondrite meteorite [TL].

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Type Material: Institute of Meteoritics and Department of Geology, University of New Mexico, Albuquerque, New Mexico, USA.

References: (1) Okada, A., K. Keil, B.F. Leonard, and I.D. Hutcheon (1985) Schöllhornite, Na_{0.3}(H₂O)₁[CrS₂], a new mineral in the Norton County enstatite achondrite. *Amer. Mineral.*, 70, 638–643.