

Crystal Data: Triclinic, pseudohexagonal. *Point Group:* $P\bar{1}$; $\bar{3} 2/m$ pseudohexagonal. In pseudorhombohedral crystals, nearly cubic in aspect, to 4.5 cm; tabular, complex to rounded twinned forms; anhedral, granular, or massive. *Twinning:* About [0001], interpenetrant, simple and repeated, common; contact on {10 $\bar{1}$ 1}.

Physical Properties: *Cleavage:* {10 $\bar{1}$ 1}, distinct. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 4–5 D(meas.) = 2.05–2.20 D(calc.) = 2.035

Optical Properties: Transparent to translucent. *Color:* White, yellow, pink, red, colorless; colorless in thin section. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (+) or (–) or uniaxial; commonly shows birefringent panelling in six sections. *Orientation:* $X = c$; rarely $Z = c$. $\alpha = 1.478$ – 1.487 $\beta = \text{n.d.}$ $\gamma = 1.480$ – 1.493 $2V(\text{meas.}) = 0^\circ$ – 32°

Cell Data: *Space Group:* $P\bar{1}$. $a = 9.40$ – 9.45 $b = 9.40$ – 9.44 $c = 9.40$ – 9.44
 $\alpha = 94.18^\circ$ – 94.33° $\beta = 94.08^\circ$ – 94.36° $\gamma = 94.07^\circ$ – 94.45° $Z = [2]$

X-ray Powder Pattern: Table Mountain, Colorado, USA; very similar to herschelite. 2.925 (100), 4.32 (75), 9.35 (50), 5.02 (30), 3.87 (30), 2.890 (30), 3.59 (25)

Chemistry:	(1)	(2)	(1)	(2)
SiO ₂	47.56	47.46	K ₂ O	0.92
Al ₂ O ₃	20.40	20.13	H ₂ O ⁺	16.28
MgO	0.20		H ₂ O [–]	3.44
CaO	10.52	11.07	H ₂ O	21.34
Na ₂ O	0.32		Total	99.64 100.00

(1) Ritter Hot Spring, Grant Co., Oregon, USA; corresponds to (Ca_{0.94}K_{0.10}Na_{0.05}Mg_{0.02})_{Σ=1.11} Al_{2.01}Si_{3.97}O₁₂•5.50H₂O. (2) CaAl₂Si₄O₁₂•6H₂O.

Mineral Group: Zeolite group.

Occurrence: In volcanic rocks as basalts, andesite; rarer in limestones and schists; hydrothermally deposited in cavities and joints in ore veins. In bedded tuff in lake deposits, altered from volcanic glass.

Association: Zeolites, nepheline, melilite, olivine, pyroxenes, amphiboles, axinite, epidote, calcite, tridymite, dolomite.

Distribution: A common zeolite. Fine crystals from Idar-Oberstein, Rhineland-Palatinate, Germany. At Řepčice (Rübendörfel), near Ústí nad Lábem (Aussig), Czech Republic. At a number of localities in Co. Antrim, Ireland. In Scotland, at Kilmalcolm, Renfrewshire. From Haeddin, on Eysturoy; Dalsnipa, on Sandoy; and Skutin, on Nolsoy, Faeroe Islands. Large crystals at Breidhdalsheidhi, Iceland. In the USA, around Paterson, Passaic Co., and Bergen Hill, Hudson Co., New Jersey; on Table Mountain, Jefferson Co., Colorado; at Goble, Columbia Co., and Springfield, Lane Co., Oregon. In the Bay of Fundy district, Nova Scotia, Canada. On Table Mountain, Rosarito Beach, Baja California, Mexico. In the Khandivali quarry, near Bombay, Maharashtra, India. At Richmond and Collingwood, Victoria, and on Fairy Mount, near Kyogle, New South Wales, Australia.

Name: From the Greek *chabazios*, an ancient name of a stone.

References: (1) Dana, E.S. (1892) Dana's system of mineralogy, (6th edition), 589–592. (2) Deer, W.A., R.A. Howie, and J. Zussman (1963) Rock-forming minerals, v. 4, framework silicates, 387–400. (3) Passaglia, E. (1970) The crystal chemistry of chabazites. Amer. Mineral., 55, 1278–1301. (4) Gude, A.J., 3rd and R.A. Sheppard (1966) Silica-rich chabazite from the Barstow Formation, San Bernardino County, Southern California. Amer. Mineral., 51, 909–915. (5) Mazzi, F. and E. Galli (1983) The tetrahedral framework of chabazite. Neues Jahrb. Mineral., Monatsh., 461–480.

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