

Crystal Data: Hexagonal. *Point Group:* $\bar{3}2/m$. Crystals hexagonal, prismatic or steeply dipyrarnidal, tabular, rhombohedral, rarely acicular, typically rough, to 1 m; sectorially striated on {0001} || {10 $\bar{1}$ 1}. Also granular, massive. *Twinning:* Common lamellar || {10 $\bar{1}$ 1}, may be an exsolution phenomenon. Contact or penetration twins on {0001} or {10 $\bar{1}$ 1}, rare.

Physical Properties: *Cleavage:* Partings on {0001} and {10 $\bar{1}$ 1}, from exsolved böhmite. *Fracture:* Uneven to conchoidal. *Tenacity:* Brittle, tough when compact. Hardness = 9 D(meas.) = 3.98–4.10 D(calc.) = 3.997 May fluoresce or phosphoresce under UV.

Optical Properties: Transparent to translucent. *Color:* Colorless, gray, brown; pink to pigeon-blood-red, orange, yellow, green, blue to cornflower blue, violet; may be color zoned, asteriated; colorless, pale bluish or reddish in transmitted light. *Streak:* White. *Luster:* Adamantine to vitreous; pearly on partings.

Optical Class: Uniaxial (-); commonly anomalously biaxial. *Pleochroism:* Weak; stronger when colored, *O* = pale to deep blue, *E* = blue-green to yellow-green, or *O* = deep purple, *E* = pale yellow. *Absorption:* *O* > *E*. $\omega = 1.767\text{--}1.772$ $\epsilon = 1.759\text{--}1.763$ $2V(\text{meas.}) = \leq 58^\circ$

Cell Data: *Space Group:* $R\bar{3}c$ (synthetic). $a = 4.7540(5)$ $c = 12.9820(6)$ $Z = 6$

X-ray Powder Pattern: Synthetic. (ICDD 42-1468). 2.085 (100), 2.551 (97), 1.6014 (82), 3.48 (70), 1.3738 (45), 2.379 (42), 1.7398 (42)

Chemistry: Nearly pure Al₂O₃, with traces of Fe, Ti, and Cr.

Mineral Group: Hematite group.

Occurrence: Characteristic of Al-rich, Si-poor geological environments; in syenite and monzonite, and some quartz-free pegmatites; primary or a reaction product in eclogitic xenoliths in kimberlites. In regional or contact, high-grade metamorphic aluminous rocks, and some advanced argillic and potassic hydrothermal alteration assemblages; detrital in placers.

Association: Andesine, oligoclase, nepheline, scapolite (syenites); spinel, rutile, chondrodite, “hornblende”, phlogopite, calcite (metamorphosed limestones); kyanite, sillimanite, dumortierite, chlorite (schists); pyrope-rich garnet, spinel, phlogopite, omphacitic clinopyroxene, kyanite, rutile, graphite, diamond (eclogitic xenoliths).

Distribution: Numerous localities. In the USA, from Chester, Hampden Co., Massachusetts; the Cortland district, Westchester Co., New York; at Franklin, Sussex Co., New Jersey; large crystals from Hogback Mountain, Jackson Co., and Buck Creek, Clay Co., North Carolina; and from the Laurel Creek mine, Rabun Co., Georgia. At Bancroft and Haliburton, Ontario, Canada. On Naxos and Samos Islands, Greece. Large crystals from around the Soutpansberg, Transvaal, South Africa. Red gems from: the Mogok district, Myanmar (Burma). In the Ratnapura district, Sri Lanka. Around Mysore, India. In the Jegdalek marble, near Sorobi, Laghman Province, Afghanistan. At Merkestein, near Longido, and the Morogoro district, Tanzania. From Ampanihy, Madagascar. Blue, green, and yellow gems from: Chanthaburi and Trat, Thailand. Around Bottambang and Pailin, Cambodia. From the Zanskar district, Kashmir, India. In the Umba Valley, Tanzania. From around Andranondambo and Antsiernene, Madagascar. At Anakie, Queensland, Australia. From Yogo Gulch, 25 km southwest of Utica, Fergus Co., Montana, USA.

Name: Probably from the Sanskrit *kurivinda*, for *ruby*, through the Tamil *kurundam*.

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