Crystal Data: Monoclinic, pseudo-hexagonal. Point Group: \( m \). Steep doubly-terminated pyramidal crystals, many forms, but oscillatory and sceptered due to intergrowths \( || \) pseudo-{0001} with bastnäsite-(Ce), synchysite-(Ce), röntgenite-(Ce), cordylite, to 24 cm.


Optical Properties: X-ray Powder Pattern: Mont Saint-Hilaire, Canada; identical with parisite-(Nd). 3.565 (100), 2.838 (100), 2.060 (80), 1.938 (60), 1.882 (50), 1.658 (50), 1.430 (40).

Chemistry: (1) \( \text{CO}_2 \) 24.22 (2) \( \text{Y}_2\text{O}_3 \) trace (3) \( \text{Eu}_2\text{O}_3 \) 0.20

Chemistry: (2) \( \text{La}_2\text{O}_3 \) 15.10 (30.33) (3) \( \text{Ce}_2\text{O}_3 \) 30.67 (28.78) (3) \( \text{Pr}_2\text{O}_3 \) 3.00 (3) \( \text{Nd}_2\text{O}_3 \) 11.65 (3) \( \text{Sm}_2\text{O}_3 \) 1.46

Chemistry: Total 99.78 [98.65] 100.00

Chemistry: (3) \( \text{Ca(Ce, La)}_2(\text{CO}_3)_3\text{F}_2 \) with Ce:La = 1:1.


Occurrence: An accessory mineral in differentiated alkaline massifs, granite pegmatites, and RE-rich carbonatites.

Association: Bastnäsite, synchysite, cordylite, ancyllite, calcite, fluorite, quartz.

Distribution: Many localities, most minor. Fine crystals from the Muzo district, Boyacá Province, Colombia. In the USA, in Montana, very large crystals at the Snowbird deposit and the nearby Cedar Log prospect, Mineral Co., and from Pyrites, 13 km east of Florence, Ravalli Co.; at Quincy, Norfolk Co., Massachusetts. From Mont Saint-Hilaire, Quebec, Canada. At Holmestrand, Vestfold, Norway. In the Trimmous talc deposit, six km northeast of Luzenac, Ariège, France. From Monterfano, Lombardy, Italy. Around Gallt y Wenallt, Gwynedd, Wales. In the Khilibiny massif, Kola Peninsula, Russia. On Mt. Malosa, Zomba district, Malawi. At Ifasina, Torendrika, Madagascar. In the Lueshe carbonatite, 150 km north of Goma, Kivu Province, Congo (Zaire). At the Shirashi pegmatite, Kobe, Kyoto Prefecture, Japan. In the Bayan Obo Fe–Nb–RE deposit, 130 km north of Baotou, Inner Mongolia, China. At Nam Nam Xe, Vietnam.

Name: Honors J.J. Paris, Manager of the emerald mine at Muzo, Colombia.


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