Parisite-(Nd)  

\[ \text{Ca(Nd, Ce)}_2(\text{CO}_3)_3\text{F}_2 \]


Crystal Data:  [Monoclinic.]  [by analogy to parisite-Ce].  Point Group: n.d.  Large grains.


Optical Properties:  Semitransparent.  Color: Yellowish brown; pale yellowish brown in thin section.  Luster: Vitreous to greasy.  Optical Class: Uniaxial (+).  \( \omega = 1.679 \)  \( \epsilon = 1.754 \)

Cell Data:  Space Group: n.d.  \( Z = n.d. \)

X-ray Powder Pattern:  Stated to be identical to parisite-(Ce).

Chemistry:  (1) Bayan Obo, China; average of two analyses, RE = Y 0.2%, La 9.6%, Ce 35.9%, Pr 7.7%, Nd 40.6%, Sm 4.5%, Eu 0.4%, Gd 1.0%, Dy 0.2%, Yb 0.1%.

Occurrence:  In carbonatite-derived dolomitic marble.

Association:  Calcite, aegirine, sodic amphibole, quartz.

Distribution:  In the Bayan Obo Fe–Nb–RE deposit, 130 km north of Baotou, Inner Mongolia, China.

Name:  For its relation to parisite, with neodymium as its dominant rare-earth element.

Type Material: n.d.