

Crystal Data: Tetragonal. *Point Group:* 4. As isolated anhedral grains to 1 mm, intimately intergrown with törnebohmite and/or bastnäsite.

Physical Properties: *Cleavage:* Imperfect on {001}. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = ~6 D(meas.) = n.d. D(calc.) = 5.094 Nonfluorescent.

Optical Properties: Transparent. *Color:* Very pale yellow to colorless. *Streak:* White. *Luster:* Greasy. *Optical Class:* Uniaxial (+). $\omega = 1.825(10)$ $\varepsilon = 1.835(10)$ Non-pleochroic.

Cell Data: *Space Group:* $P4_1$. $a = 6.8482(3)$ $c = 24.855(1)$ $Z = 8$

X-ray Powder Pattern: Mochalin Log REE deposit, Chelyabinsk Oblast², South Urals, Russia. 3.157 (100), 2.934 (39), 2.893 (29), 3.043 (22), 2.864 (21), 4.194 (18), 3.564 (16)

Chemistry:	(1)	(2)
La_2O_3	36.80	73.00
Ce_2O_3	31.22	
Pr_2O_3	1.57	
Nd_2O_3	2.96	
SiO_2	26.73	27.00
Total	99.28	100.00

(1) Mochalin Log REE deposit, Chelyabinsk Oblast², South Urals, Russia; average electron microprobe and Raman spectroscopic analyses; corresponds to $(\text{La}_{1.02}\text{Ce}_{0.86}\text{Nd}_{0.08}\text{Pr}_{0.04})_{\Sigma=2.00}\text{Si}_{2.00}\text{O}_7$.
 (2) $\text{La}_2\text{Si}_2\text{O}_7$.

Occurrence: In polymimetic REE-bearing nodules.

Association: Allanite-(Ce), allanite-(La), bastnäsite-(Ce), bastnäsite-(La), ferriallanite-(Ce), ferriallanite-(La), ferriperbœite-(Ce), ferriperbœite-(La), fluorbritholite-(Ce), hydroxylbastnäsite-(Ce), perbœite-(Ce), perbœite-(La), törnebohmite-(Ce), törnebohmite-(La).

Distribution: From dump no. 2, Mochalin Log REE deposit, 14 km north of Kyshtym, Chelyabinsk Oblast², South Urals, Russia.

Name: The suffix identifies the La-dominant analogue of *percleveite*-(Ce).

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (5362/1; 96697).

References: (1) Kasatkin, A.V., N.V. Zubkova, I.V. Pekov, N.V. Chukanov, R. Škoda, A.A. Agakhanov, D.I. Belakovskiy, D.A. Ksenofontov, J. Plášil, A.M. Kuznetsov, S.N. Britvin, and D.Y. Pushcharovsky (2020) The mineralogy of the historical Mochalin Log REE deposit, South Urals, Russia. Part III. Percleveite-(La), $\text{La}_2\text{Si}_2\text{O}_7$, a new REE disilicate mineral. *Mineral. Mag.*, 84, 913-920.