

Crystal Data: Monoclinic. *Point Group:* $2/m$. In grains, to 0.2 mm.

Physical Properties: *Cleavage:* One, parallel to elongation. *Tenacity:* Brittle.
Hardness = ~ 3 VHN = 198–245, 219 average. D(meas.) = n.d. D(calc.) = 9.06 (synthetic).

Optical Properties: Transparent in thin fragments. *Color:* Yellow-brown to orange-brown; in reflected light, gray with bluish tint, tarnishes to a bluish to bluish white film. *Streak:* Grayish yellow. *Luster:* Adamantine, nearly.

Optical Class: Biaxial. *Pleochroism:* Pale brownish yellow to light brown. *Orientation:* Straight. $n = > 2.0$ *Anisotropism:* Dark brown to blue-gray.

R_1 – R_2 : (460) 18.5–22.8, (546) 16.1–20.4, (590) 15.8–19.7, (656) 14.5–18.5

Cell Data: *Space Group:* $P2_1/c$. $a = 8.71(2)$ $b = 5.08(2)$ $c = 15.66(2)$ $\beta = 128.27(11)^\circ$
 $Z = 2$

X-ray Powder Pattern: Khaydarkan deposit, Kyrgyzstan.

3.05 (10), 2.89 (7.5), 2.84 (7), 2.49 (5), 2.16 (5b), 1.911 (5), 1.883 (5)

Chemistry:

	(1)	(2)
As	9.74	13.87
Hg	81.28	74.28
O	9.57	11.85
Total	100.59	100.00

(1) Khaydarkan deposit, Kyrgyzstan; by electron microprobe, average of six analyses; stated to correspond to $\text{Hg}_{2.71}\text{As}_{0.87}\text{O}_{4.00}$. (2) $\text{Hg}^{1+}\text{Hg}^{2+}(\text{AsO}_4)$.

Occurrence: In the oxidized zone of a Sb–As–Hg deposit.

Association: Calomel, eglestonite, terlinguaite, corderoite, montroydite, kuznetsovite, shakhovite, poyarkovite, mercury.

Distribution: From the Khaydarkan deposit, Fergana Valley, Alai Range, Kyrgyzstan.

Name: In honor of the Russian theater and film actress Lyudmila Alekseevna Chursina (1941–).

Type Material: Institute of Geology and Geophysics, Siberian Division, Academy of Sciences, Novosibirsk, XI-41/1; Mining Institute, St. Petersburg, Russia, 1678/1.

References: (1) Vasil'ev, V.I., Y.G. Lavrent'ev, and N.A. Pal'chik (1984) Chursinite, $(\text{Hg}_2)_3(\text{AsO}_4)_3$, a new natural mercury arsenate. Zap. Vses. Mineral. Obshch., 113, 341–347 (in Russian). (2) (1985) Amer. Mineral., 70, 871 (abs. ref. 1). (3) Kamenar, B. and B. Kaitner (1973) The crystal structure of mercury(I) orthoarsenate. Acta Cryst., 29, 1666–1669.