

Crystal Data: Cubic. *Point Group:* $\bar{4} 3m$. As crystals to 0.6 mm and aggregates of a few millimeters across. Occasionally crystals show {110} and {100}.

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = 3-4
D(meas.) = n.d. D(calc.) = 8.04

Optical Properties: Transparent. *Color:* Bright yellowish orange to brownish yellow; turns slowly to dark brown or dark olive green in natural light. *Streak:* Lemon yellow. *Luster:* Adamantine.
Optical Class: Isotropic. *n*(calc.) = 2.33 *Dispersion:* Weak. Nonpleochroic.

Cell Data: *Space Group:* $F\bar{4} 3c$. *a* = 17.360(3) *Z* = 32

X-Ray Diffraction Pattern: Adolf mine, Rudabánya deposit, near Rudabánya, northeast Hungary. 2.931 (s), 2.611 (s), 5.00 (m), 2.001 (m), 4.33 (mw), 2.255 (mw), 1.734 (mw)

Chemistry:	(1)	(2)
Ag ₂ O	29.39	29.29
Hg ₂ O	52.62	52.72
As ₂ O ₅	13.69	14.52
Cl	4.62	4.48
SO ₃	0.19	
-O = Cl ₂	1.04	1.01
Total	99.47	100.00

(1) Adolf mine, Rudabánya deposit, near Rudabánya, northeast Hungary; average electron microprobe analysis supplemented by micro-Raman spectroscopy; corresponds to (Ag_{2.06}Hg_{2.05})_{Σ=4.11}[(As_{0.97}S_{0.02})_{Σ=0.99}O₄]Cl_{1.06}. (2) (Ag₂Hg₂)(AsO₄)Cl.

Occurrence: A secondary mineral in cavities of siliceous sphaerosiderite and limonite rocks formed by reaction of Ag-, Hg- and As-bearing sulfides or Ag amalgams with chlorine-bearing solutions.

Association: Chlorargyrite, bromargyrite, iodargyrite, perroudite, capgaronnite, iltisite.

Distribution: From the Adolf mine area, Rudabánya ore deposit, near Rudabánya town, ~35 km north of Miskolc, northeast Hungary.

Name: For its type locality near *Rudabánya*, Hungary.

Type Material: Mineral collection of the Herman Ottó Museum, Miskolc, Hungary (2016.351).

References: (1) Effenberger, H., S. Szakáll, B. Fehér, T. Váczi, and N. Zajzon (2019) Rudabányaite, a new mineral with a [Ag₂Hg₂]⁴⁺ cluster cation from the Rudabánya ore deposit (Hungary). *Eur. J. Mineral.*, 31(3), 537-547. (2) (2021) *Amer. Mineral.*, 106, 1542-1543 (abs. ref. 1).