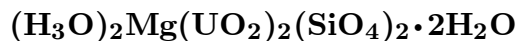


Sklodowskite



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Crystal Data: Monoclinic. *Point Group:* $2/m$. Crystals acicular along [010], to 4 mm, in tightly compacted parallel aggregates. Commonly reticulated, radiating divergent, stellate; as velvety coatings; earthy, massive. *Twinning:* With {001} or {100} as the twin plane, probable.

Physical Properties: *Cleavage:* Perfect on {100}. Hardness = $\sim 2\text{--}3$ $D(\text{meas.}) = 3.54$ $D(\text{calc.}) = [3.51]$ Radioactive.

Optical Properties: Transparent to translucent. *Color:* Citron-yellow to pale lemon-yellow. *Streak:* Yellow. *Luster:* Adamantine to vitreous and silky, earthy when massive. *Optical Class:* Biaxial (-). *Pleochroism:* $X = \text{colorless}$; $Y = \text{yellow}$; $Z = \text{pale yellow}$. *Orientation:* $Y = b$. *Dispersion:* $r > v$, strong. $\alpha = 1.613\text{--}1.615$ $\beta = 1.635\text{--}1.642$ $\gamma = 1.656\text{--}1.657$ $2V(\text{meas.}) = \text{Very large}$.

Cell Data: *Space Group:* $C2/m$. $a = 17.382(6)$ $b = 7.047(1)$ $c = 6.610(2)$ $\beta = 105^\circ 54(12)'$ $Z = 2$

X-ray Powder Pattern: Shaba Province, Congo.

8.42 (10), 4.19 (8), 3.27 (7), 3.52 (6), 3.00 (6), 5.91 (5), 4.00 (5)

Chemistry:	(1)	(2)
SiO_2	14.28	14.61
TeO_3	1.08	
UO_3	64.72	69.54
NiO	0.20	
MgO	3.74	4.90
$(\text{Na,K})_2\text{O}$	1.97	
H_2O	13.41	10.95
Total	99.40	100.00

(1) Shinkolobwe, Congo. (2) $(\text{H}_3\text{O})_2\text{Mg}(\text{UO}_2)_2(\text{SiO}_4)_2 \cdot 2\text{H}_2\text{O}$.

Occurrence: A rare secondary mineral formed by the action of silica-bearing waters on uraninite or earlier-formed secondary uranium minerals.

Association: Kasolite, soddyite, torbernite, uranophane, uranophane-beta, nováčekite, metazeunerite, curite.

Distribution: From Shinkolobwe, Katanga Province, Congo (Shaba Province, Zaire). In the USA, from the Grants district, McKinley Co., New Mexico; at the Oyler Tunnel claim, near Fruita, Wayne Co., and from the Honeycomb Hills, Juab Co., Utah; in the New Haven mine, Crook Co., Wyoming; and in the Ross-Adams mine, Bokan Mountain, Prince of Wales Island, Alaska. From the Santo Domingo mine, Santa Eulalia, Chihuahua, Mexico. In the Pedra Preta mine, Brumado district, Bahia, Brazil. In the Nabarlek and Koongara uranium deposits and at Rum Jungle, Northern Territory, Australia. In the Rabéjac uranium deposit, seven km south-southwest of Lodève, Hérault, France.

Name: For Marie Skłodowska-Curie (1867–1934), Polish-French physicist and chemist, pioneer worker on radioactivity.

Type Material: n.d.

References: (1) Schoep, A. (1924) La sklodowskite, nouveau minéral radioactif. *Compt. Rendus Acad. Sci. Paris*, 179, 413–415 (in French). (2) (1925) *Amer. Mineral.*, 10, 132 (abs. ref. 1). (3) Gorman, D.H. (1957) Studies of radioactive compounds: IX - sklodowskite. *Can. Mineral.*, 6, 52–60. (4) Frondel, C. (1958) Systematic mineralogy of uranium and thorium. *U.S. Geol. Sur. Bull.* 1064, 300–304. (5) Stohl, F.V. and D.K. Smith (1981) The crystal chemistry of the uranyl silicate minerals. *Amer. Mineral.*, 66, 610–625.

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