

Oursinite**(Co, Mg)(UO₂)₂Si₂O₇•6H₂O**

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Crystal Data: Orthorhombic. *Point Group:* $mm2$ or $2/m\ 2/m\ 2/m$. In radiating aggregates of acicular crystals elongated || [001], to 1 mm.

Physical Properties: *Cleavage:* On {hk0}. Hardness = n.d. D(meas.) = n.d. D(calc.) = 3.674 Radioactive.

Optical Properties: Transparent. *Color:* Pale yellow.
Optical Class: Biaxial (-). *Orientation:* $Y = c$. $\alpha = 1.624(2)$ $\beta = 1.640(2)$ $\gamma = 1.650(2)$
 $2V(\text{meas.}) = \text{n.d.}$ $2V(\text{calc.}) = 76^\circ$

Cell Data: *Space Group:* $Aba2$ or $Abam$. $a = 12.74(1)$ $b = 17.55(2)$ $c = 7.050(6)$
 $Z = 4$

X-ray Powder Pattern: Shinkolobwe, Congo.
8.73 (100), 2.853 (90), 7.20 (70), 4.141 (70), 5.16 (50), 3.528 (40), 4.55 (35)

Chemistry:	(1)
SiO ₂	13.21
UO ₃	66.71
NiO	0.30
CoO	6.56
MgO	0.42
H ₂ O	[12.80]
Total	[100.00]

(1) Shinkolobwe, Congo; by electron microprobe, average of seven analyses, H₂O by difference; corresponds to $(\text{Co}_{0.78}\text{Mg}_{0.09}\text{Ni}_{0.04})_{\Sigma=0.91}(\text{UO}_2)_{2.07}\text{Si}_{1.95}\text{O}_7 \cdot 6.30\text{H}_2\text{O}$.

Occurrence: A secondary mineral in brecciated dolostone containing uraninite.

Association: Soddyite, kasolite, schoepite, sklodowskite, torbernite, lepersonnite, bijvoetite, curite.

Distribution: From Shinkolobwe, Katanga Province, Congo (Shaba Province, Zaire).

Name: From the French *oursin*, meaning *sea urchin*, in allusion to the mineral's appearance.

Type Material: Royal Museum of Central Africa, Tervuren, Belgium, RGM1321.

References: (1) Deliens, M. and P. Piret (1983) L'oursinite $(\text{Co}_{0.86}\text{Mg}_{0.10}\text{Ni}_{0.04})\text{O} \cdot 2\text{UO}_3 \cdot 2\text{SiO}_2 \cdot 6\text{H}_2\text{O}$, nouveau minéral de Shinkolobwe, Shaba, Zaïre. Bull. Minéral., 106, 305-308 (in French with English abs.). (2) (1984) Amer. Mineral., 69, 567 (abs. ref. 1).