

Curienite**Pb(UO₂)₂(V₂O₈)•5H₂O**

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Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m. As a microcrystalline powder.**Physical Properties:** Hardness = n.d. D(meas.) = 4.88 D(calc.) = 4.94 Radioactive.**Optical Properties:** Semitransparent. *Color:* Canary-yellow.*Optical Class:* Biaxial (-) (synthetic). $\alpha = \text{n.d.}$ $\beta = > 2$ $\gamma = > 2$ $2V(\text{meas.}) = 66^\circ$ **Cell Data:** *Space Group:* *Pcan* (synthetic). $a = 10.40(4)$ $b = 8.45(3)$ $c = 16.34(4)$
Z = 4**X-ray Powder Pattern:** Mounana mine, Gabon.

3.005 (vvs), 8.19 (vvs), 4.10 (vs), 5.13 (s), 4.22 (s), 3.226 (ms), 2.116 (ms)

Chemistry:

	(1)	(2)	(3)
UO ₃	53.40	51.50	53.61
V ₂ O ₅	17.32	17.87	17.04
PbO	20.09	20.63	20.91
BaO	0.84		
H ₂ O	8.30	10.00	8.44
Total	99.95	100.00	100.00

(1) Mounana mine, Gabon; by gravimetric and photometric methods, H₂O by the Penfield method; corresponds to (Pb_{0.97}Ba_{0.06})_{Σ=1.03}(UO₂)₂(V_{2.04}O₈)•4.94H₂O. (2) Abertamy mine, Czech Republic; by electron microprobe, H₂O by microchemical methods.(3) Pb(UO₂)₂(V₂O₈)•5H₂O.**Polymorphism & Series:** Forms a series with francevillite.**Occurrence:** In the oxidized zone of a Pb-bearing U–V deposit (Mounana mine, Gabon).**Association:** Francevillite, duttonite, vanuralite, chervetite, mottramite, carnotite, dewindtite, torbernite, uranopilite, johannite, kasolite (Mounana mine, Gabon); sphalerite, galena, uraninite, quartz (Abertamy mine, Czech Republic); mottramite, metatorbernite, zeunerite (Jáchymov, Czech Republic).**Distribution:** From the Mounana uranium mine, Franceville, Gabon. In the Abertamy uranium mine, near Jáchymov, and in the Geister vein, Jáchymov (Joachimsthal), Czech Republic. From Akashat, Iraq.**Name:** To honor Professor Hubert Curien (1924–), French mineralogist and crystallographer, Laboratory of Mineralogy and Crystallography, University of Pierre and Marie Curie (Sorbonne), Paris, France.**Type Material:** University of Pierre and Marie Curie, Paris; National School of Mines, Paris, France.**References:** (1) Cesbron, F. and N. Morin (1968) Une nouvelle espèce minérale: la curiénite. Étude de la série francevillite-curiénite. Bull. Minéral., 91, 453–459 (in French with English abs.). (2) (1969) Amer. Mineral., 54, 1220 (abs. ref. 1). (3) Boréne, J. and F. Cesbron (1971) Structure cristalline de la curiénite Pb(UO₂)₂(VO₄)₂•5H₂O. Bull. Minéral., 94, 8–14 (in French with English abs.). (4) Pauliš, P. (1992) Curienite from Abertamy near Jachymov, Western Bohemia, Czechoslovakia. Časopis pro Mineralogii a Geologii, 37(1), 55–56 (in Czech with English abs.).