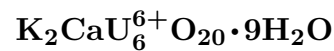


**Rameauite**

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**Crystal Data:** Monoclinic, pseudo-hexagonal. *Point Group:*  $2/m$  or  $m$ . As crystals, to 1 mm, pseudo-hexagonal in section, steep pyramidal, flattened on {010}, and elongated along [001], with {010}, {100}, {001}, and {110}. *Twining:* Universal, on {100}.

**Physical Properties:** *Cleavage:* Good on {010}. Hardness = n.d. D(meas.) = 5.60  
D(calc.) = 5.55

**Optical Properties:** Semitransparent. *Color:* Orange.  
*Optical Class:* Biaxial (-). *Orientation:*  $X = b$ ;  $Z \wedge c = 4^\circ\text{--}6^\circ$ .  $\alpha = \text{n.d.}$   $\beta = 1.95$   $\gamma = 1.97$   
 $2V(\text{meas.}) = 32^\circ$

**Cell Data:** *Space Group:*  $C2/c$  or  $Cc$ .  $a = 13.97$   $b = 14.26$   $c = 14.22$   $\beta = 121^\circ 1(5)'$   
 $Z = 4$

**X-ray Powder Pattern:** Margnac mine, France.  
7.12 (vvs), 3.495 (vvs), 3.139 (vvs), 3.124 (vvs), 3.566 (vs), 3.473 (vs), 3.185 (vs)

<b>Chemistry:</b>	(1)
UO <sub>3</sub>	84.
CaO	2.4
SrO	0.0
BaO	0.0
K <sub>2</sub> O	5.0
H <sub>2</sub> O <sup>+</sup>	8.2
Total	99.6

(1) Margnac mine, France; by electron microprobe, H<sub>2</sub>O by TGA; corresponds to  $\text{K}_{2.16}\text{Ca}_{0.87}\text{U}_{6.00}\text{O}_{20}\cdot 9.3\text{H}_2\text{O}$ .

**Occurrence:** In the oxidation zone of uranium deposits.

**Association:** Calcite, uranophane, uraninite, "gummite".

**Distribution:** From the Margnac mine, Compreignac, Haute-Vienne, France. At Shinkolobwe, Katanga Province, Congo (Shaba Province, Zaire). Found in the Orphan mine, Grand Canyon, Coconino Co., Arizona, USA.

**Name:** For Jacques Rameau (?–1960), prospector for the French Atomic Energy Commission, Paris, France, who discovered the Margnac 2 deposit.

**Type Material:** University of Pierre and Marie Curie, Paris; National School of Mines, Paris, France; National Museum of Natural History, Washington, D.C., USA, 137454.

**References:** (1) Cesbron, F., W.L. Brown, P. Bariand, and J. Geffroy (1972) Rameauite and agrinierite, two new hydrated complex uranyl oxides from Margnac, France. *Mineral. Mag.*, 38, 781–789. (2) (1973) *Amer. Mineral.*, 58, 805 (abs. ref. 1).