

**Crystal Data:** Hexagonal. *Point Group:* n.d. As distorted acicular crystals, typically in asbestiform bundles, to 1 mm.

**Physical Properties:** *Fracture:* Uneven. *Tenacity:* Flexible. *Hardness* = 2–3  
*D*(meas.) = 4.05(2) *D*(calc.) = 4.02 Radioactive; strongly fluoresces greenish yellow under LW UV.

**Optical Properties:** Translucent. *Color:* Canary-yellow. *Streak:* White. *Luster:* Silky.  
*Optical Class:* Uniaxial (+). *Orientation:* Length-fast.  $\omega = 1.588(2)$   $\epsilon = 1.612(2)$

**Cell Data:** *Space Group:* n.d.  $a = 15.79(1)$   $c = 23.93(3)$   $Z = 36$

**X-ray Powder Pattern:** Jomac mine, Utah, USA.  
 3.056 (100), 6.56 (77), 6.91 (55), 7.86 (47), 4.76 (40), 4.34 (36), 3.39 (33)

<b>Chemistry:</b>	(1)	(2)
UO <sub>3</sub>	81.98	82.18
CO <sub>2</sub>	12.82	12.64
H <sub>2</sub> O	5.38	5.18
<u>Total</u>	<u>100.18</u>	<u>100.00</u>

(1) Jomac mine, Utah, USA; by electron microprobe and TGA,  $(\text{CO}_3)^{2-}$  and  $(\text{OH})^{1-}$  confirmed by IR; corresponds to  $(\text{UO}_2)_{0.99}(\text{CO}_3)_{1.00} \cdot 1.03\text{H}_2\text{O}$ . (2)  $(\text{UO}_2)\text{CO}_3 \cdot \text{H}_2\text{O}$ .

**Occurrence:** In seams of gypsum in the oxidized portions of a roll-front-type uranium deposit in silty conglomerate.

**Association:** Gypsum, boltwoodite, coconinoite, metazeunerite, rutherfordine, azurite, brochantite, carbonate-cyanotrichite, malachite, manganooan smithsonite.

**Distribution:** From the Jomac mine, White Canyon district, San Juan Co., Utah, USA.

**Name:** Honors Dr. Norbert Blaton (1945– ), crystallographer and specialist in uranium minerals, Catholic University of Leuven, Leuven, Belgium.

**Type Material:** Royal Belgian Institute of Natural Sciences, Brussels, Belgium, R.C.4788.

**References:** (1) Vochten, R. and M. Deliens (1998) Blatonite,  $\text{UO}_2\text{CO}_3 \cdot \text{H}_2\text{O}$ , a new uranyl carbonate monohydrate from San Juan County, Utah. *Can. Mineral.*, 36, 1077–1081. (2) (1999) *Amer. Mineral.*, 84, 990 (abs. ref. 1).