

Crystal Data: Monoclinic. *Point Group:* 2/m. As irregular masses, to 30 μm, in between other minerals.

Physical Properties: *Cleavage:* None. *Fracture:* Irregular. *Tenacity:* Brittle. *Hardness* = 5 VHN = 534 (25 g load). D(meas.) = n.d. D(calc.) = 5.322
Weak yellowish fluorescence under SW and LW UV.

Optical Properties: Transparent. *Color:* Yellow-brown. *Streak:* Yellowish white.
Luster: Strongly vitreous.

Optical Class: Biaxial (n.d.). $n(\text{calc.}) = 1.78(3)$ $\alpha = \text{n.d.}$ $\beta = \text{n.d.}$ $\gamma = \text{n.d.}$ $2V = \text{n.d.}$

Cell Data: *Space Group:* P2₁/n. $a = 5.739(1)$ $b = 5.951(1)$ $c = 8.312(1)$ $\beta = 90.4(1)^\circ$ $Z = 2$

X-ray Powder Pattern: Jabel Harmun, Judean desert, West Bank, Palestinian Autonomy, Israel. 2.938 (100), 2.922 (99), 4.131 (79), 4.838 (78), 2.975 (47), 2.065 (47), 2.869 (43)

Chemistry:	(1)
UO ₃	63.36
CaO	36.28
Total	99.64

(1) Jabel Harmun, Judean desert, West Bank, Palestinian Autonomy, Israel; average of 14 electron microprobe analyses supplemented by Raman spectroscopy; corresponding to Ca_{2.98}U_{1.02}O_{6.04}.

Occurrence: In the Hatrurim Formation (“Mottled Zone”). Formed by pyrometamorphism due to combustion of organic-rich material at temperatures above 800 °C., during a retrograde stage by fluids/melts of high alkalinity.

Association: Larnite, brownmillerite, ye’elimite, vorlanite, fluorellestadite.

Distribution: At Jabel Harmun and Nabi Musa, Judean desert, West Bank, Palestinian Autonomy, and from the Hatrurim Basin, Negev Desert, Israel.

Name: Honors Yevgeny Vapnik of Ben Gurion, University of the Negev, Beer Sheva, Israel, for his mineralogical studies of the Hatrurim Formation.

Type Material: Museum of Natural History, Bern, Switzerland (NMBE 42401).

References: (1) Galuskin, E.V., I.O. Galuskina, J. Kusz, T. Armbruster, K.M. Marzec, P. Dzierzanowski, and M. Murashko (2014) Vapnikite Ca₃UO₆ - a new double-perovskite mineral from pyrometamorphic larnite rocks of the Jabel Harmun, Palestinian Autonomy, Israel. *Mineral. Mag.*, 78(3), 571-581. (2) (2015) *Amer. Mineral.*, 100, 1330-1331 (abs. ref. 1).