Agricolaite $K_4(UO_2)(CO_3)_3$

Crystal Data: Monoclinic. *Point Group*: 2/*m*. As isolated equant irregular grains to 0.3 mm.

Physical Properties: *Cleavage*: None. *Tenacity*: Brittle. *Fracture*: Uneven. Hardness = ~4 D(meas.) = > 3.3 D(calc.) = 3.531 Nonfluorescent.

Optical Properties: Translucent. *Color*: Yellow. *Streak*: Pale yellow *Luster*: Vitreous. *Optical Class*: n.d.

Cell Data: *Space Group*: *C*2/*c*. a = 10.2380(2) b = 9.1930(2) c = 12.2110(3) β = 95.108(2)° Z = 4

X-Ray Diffraction Pattern: Giftkiesstollen adit, Jáchymov, Czech Republic.
3.740 (100), 5.087 (57), 6.061 (55), 2.281 (52), 3.393 (44), 1.8729 (40), 2.4083 (33)

Chemistry:

	(1)	(2)
UO_3	48.58	47.16
K_2O	31.49	31.07
CO_2	[22.04]	21.77
impurities	0.13	.
Total	102.24	100.00

(1) Giftkiesstollen adit, Jáchymov, Czech Republic; average electron microprobe analysis, CO_2 calculated from stoichiometry; corresponds to $K_{3.98}(UO_2)_{1.01}(CO_3)_{3.00}$. (2) $K_4(UO_2)(CO_3)_3$.

Occurrence: A secondary weathering mineral in vugs of ankerite gangue in gneiss.

Association: Aragonite, brochantite, posnjakite, malachite, rutherfordine, “pseudo-voglite”.

Distribution: From the Giftkiesstollen adit, Jáchymov, southern slopes of the Krušné hory Mts. (Erzgebirge), ~20 km north of Karlovy Vary, NW Bohemia, Czech Republic.

Name: Honors Georgius *Agricola* (1494-1555), German scholar and scientist, “Father of Mineralogy”, and author of *De re Metallica Libri XII* (1556).

Type Material: National Museum, Prague, Czech Republic (P1p 17/2009).

References: (1) Skála, R., P. Ondruš, F. Veselovský, I. Císařová, and J. Hloušek (2011) Agricolaite, a new mineral of uranium from Jáchymov, Czech Republic. Mineralogy and Petrology, 103, 169-175.