

OFFRETITE FROM THE BALATON HIGHLAND, HUNGARY

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Offretite, a rare zeolite mineral was found in Bazsi (Karikás Hill quarry) near Sümeg. This zeolite was unknown in hydrothermal zeolite associations from the Balaton Highland area. The only occurrence in Hungary was Bagókö Hill near Somoskő, Medves Hills. Offretite was found in small cavities in the Pliocene basaltic rock in association with calcite, analcime, and clay minerals. Offretite forms colorless hexagonal needle shaped crystals up to ~1 mm in size. They cover the walls of cavities. We have identified offretite from this new occurrence using transmission electron microscopy,

X-ray powder (Table 1) and selected area electron-diffraction. Regarding structural characterisation of offretite we paid special attention to the published experiences of GUALTIERI *et al.* (1998).

Reference

GUALTIERI, A., ARTIOLI, G., PASSAGLIA, E., BIGI, S., VIANI, A. & HANSON, J. C. (1998). *Amer. Mineral.*, 83: 590-606.

Table 1: X-ray powder diffraction pattern of offretite from Karikás-tető quarry, Bazsi.

Offretite Karikás-tető, Bazsi			Offretite JCPDS 22-0803		
2*theta [deg]	d(hkl) [Å]	I(rel) [%]	d [Å]	I(rel) [%]	hkl
7.68	11.5078	5.41	11.50	100	100
13.30	6.6561	2.10	6.64	20	110
15.42	5.7467	3.88	5.76	35	200
19.39	4.5772	2.11	4.58	4	201
20.44	4.3457	8.64	4.35	60	210
23.18	3.8365	8.09	3.84	45	300
23.62	3.7670	5.22	3.77	10	211
24.48	3.6363	3.06	3.60	4	102
24.98	3.5640	3.51	3.43	2	301
26.56	3.3561	1.31	3.32	20	220
27.99	3.1877	5.93	3.19	18	310
31.14	2.8718	5.45	2.88	65	400
33.35	2.6871	5.25	2.69	4	401
35.56	2.5245	14.78*	2.51	20	410
38.70	2.3265	2.42	2.30	6	500
40.57	2.2236	2.98	2.21	20	330
42.79	2.1133	24.66*	2.11	2	303
46.60	1.9490	7.54	1.96	2	502
47.84	1.9013	3.37	1.89	2	430

*Reflections of accompanying minerals are omitted
Other minerals also contributed to starred intensities*