

## Representative results of microchemical (EPMA) analyses (in wt.%) of further Cu (alumino)silicates

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
sample:	BK1										BK2					
phase	phase A							phase B	phase C		phase D			Phase E		
SO <sub>3</sub>													0.19	0.20	0.18	0.30
P <sub>2</sub> O <sub>5</sub>										0.13	0.53	0.48	0.46	0.41	0.44	0.49
SiO <sub>2</sub>	45.30	47.79	44.76	46.02	47.49	44.61	49.12	54.72	45.10	45.69	28.93	29.63	33.07	35.20	34.81	32.84
TiO <sub>2</sub>	0.61							0.59			0.19	0.21	0.28	0.20	0.21	0.26
Al <sub>2</sub> O <sub>3</sub>	24.20	24.54	28.28	25.50	25.14	28.69	22.83	20.31	3.99	6.20	10.80	11.65	12.74	12.51	13.17	12.54
CuO	7.90	8.49	5.34	7.42	7.11	4.71	8.79	3.98	39.32	35.29	17.94	14.09	20.08	22.07	20.76	20.86
FeO	1.30	1.26	1.30	1.18	1.34	1.45	1.25	0.86		0.39	2.97	3.30	4.00	3.74	3.73	4.22
CaO	0.89	1.02	0.74	0.89	1.11	0.97	1.15	0.50	2.03	1.82	0.22	0.22	0.39	0.35	0.35	0.32
MgO	5.08	4.35	6.22	5.42	4.40	7.37	3.95	2.37	0.25	0.50	0.76	0.84	0.89	0.92	0.89	0.94
K <sub>2</sub> O	3.40	4.43	4.11	3.95	4.42	2.99	3.92	1.98	0.10	0.84	1.54	1.76	2.03	2.11	2.15	1.99
Cl											0.12	0.13	0.12	0.15	0.11	0.10
Σ	88.68	91.89	90.76	90.37	91.00	90.79	91.01	85.31	90.78	90.86	63.99	62.31	74.26	77.86	76.80	74.86
H <sub>2</sub> O <sup>2</sup>	11.32	8.11	9.24	9.63	9.00	9.21	8.99	14.69	9.22	9.14	36.01	37.69	25.74	22.14	23.20	25.14
<i>apfu</i> (basis: analyses 1-7 and 11-16: 18 cations; analysis 8: 36 cations; analyses 9 and 10: 16 cations)																
S													0.10	0.08	0.09	0.10
P										0.02	0.13	0.12	0.04	0.04	0.03	0.06
Si	8.66	8.83	8.18	8.56	8.81	8.11	9.23	22.03	9.88	9.81	8.45	8.74	8.32	8.49	8.46	8.23
Ti	0.09							0.18			0.04	0.05	0.05	0.04	0.04	0.05
Al	5.45	5.34	6.09	5.59	5.50	6.14	5.05	9.64	1.03	1.57	3.72	4.05	3.78	3.55	3.77	3.71
Cu	1.14	1.19	0.74	1.04	1.00	0.65	1.25	1.21	6.51	5.72	3.96	3.14	3.82	4.02	3.81	3.95
Fe	0.21	0.19	0.20	0.18	0.21	0.22	0.20	0.29		0.07	0.73	0.81	0.84	0.75	0.76	0.88
Ca	0.18	0.20	0.14	0.18	0.22	0.19	0.23	0.21	0.48	0.42	0.33	0.37	0.33	0.33	0.32	0.35
Mg	1.45	1.20	1.69	1.50	1.22	2.00	1.11	1.42	0.08	0.16	0.07	0.07	0.11	0.09	0.09	0.09
K	0.83	1.05	0.96	0.94	1.05	0.69	0.94	1.02	0.03	0.23	0.57	0.66	0.65	0.65	0.66	0.64
Cl											0.06	0.07	0.05	0.06	0.06	0.04

<sup>1)</sup> V, Mn and Zn were analyzed but not detected; empty cells denote values below detection limits; <sup>2)</sup> by difference (100-Σ); *mpfu*(H<sub>2</sub>O) not reported due to discrepancy related to sample destruction under the beam