

## LINKING GEMOLOGY AND SPECTRAL GEOLOGY: A CASE STUDY OF ELBAITES FROM THE SERIDÓ PEGMATITE PROVINCE, NORTHEASTERN BRAZIL

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Table A.2. Averaged EPMA data of green elbaite samples (Barreto 1999).

Oxides (wt. %)	(i) Green Fe-Mn-bearing elbaite samples							(ii) Green Cu-Mn-bearing elbaite samples			
	B1Vr	B2VO	B5VA	B6VA	B8Vr	Q2V	Average	C1VC(r)	C2VC	C3VC	Average
SiO <sub>2</sub>	37.34 0	39.31 2	37.389	37.353	38.207	37.958	37.927	36.784	34.95 9	36.44 6	36.063
TiO <sub>2</sub>	0.008	0.010	0.010	0.009	0.008	0.021	0.011	0.030	0.033	0.033	0.032
B <sub>2</sub> O <sub>3</sub>	12.74 3	11.33 3	13.374	13.088	15.175	15.056	13.462	12.751	13.58 9	12.95 0	13.097
Al <sub>2</sub> O <sub>3</sub>	38.15 8	38.31 3	38.640	38.498	37.387	36.766	37.960	41.883	40.77 9	40.78 9	41.150
Bi <sub>2</sub> O <sub>3</sub>	bdl	bdl	0.006	0.003	bdl	0.103	0.019	bdl	bdl	bdl	bdl
MgO	0.006	0.009	0.011	0.011	0.021	0.014	0.012	bdl	bdl	bdl	bdl
CaO	0.513	0.632	0.485	0.443	0.319	0.610	0.500	0.108	0.112	0.105	0.108
MnO	1.673	1.081	1.593	1.552	1.529	2.550	1.663	2.286	2.436	2.410	2.377
FeO	2.915	2.659	3.334	3.190	2.851	1.022	2.662	0.122	0.362	0.272	0.252
CuO	0.005	bdl	bdl	bdl	bdl	0.056	0.010	0.990	0.990	0.929	0.970
ZnO	0.022	0.033	0.028	0.022	0.016	0.289	0.068	0.113	0.325	0.222	0.220
Na <sub>2</sub> O	2.380	2.192	2.302	2.315	1.929	1.849	2.161	1.966	1.792	2.016	1.925
H <sub>2</sub> O	3.237	3.757	3.204	3.084	3.211	3.144	3.273	3.168	3.153	3.466	3.262
F	1.107	bdl	1.098	1.495	1.342	1.468	1.085	1.411	1.307	0.197	0.972
O=F	0.466	bdl	0.462	0.629	0.596	0.618	0.462	0.594	0.550	0.083	0.409
SUM	99.64 1	99.33 1	101.26 4	100.43 4	101.39 9	100.28 8	100.35 1	101.01 8	99.28 7	99.75 2	100.01 9
No. analyses	6	6	6	7	9	5	-	4	4	4	-
Si*	5.903	6.099	5.830	5.836	5.843	5.859	-	5.682	5.495	5.763	-
Ti	0.001	0.001	0.001	0.001	0.001	0.002	-	0.003	0.004	0.004	-
B	3.469	3.232	3.599	3.528	4.005	4.010	-	3.398	3.685	3.531	-
Al	7.110	7.357	7.103	7.090	6.740	6.690	-	7.627	7.558	7.604	-
Bi	0	0	0	0	0	0.004	-	0	0	0	-
Mg	0.001	0.003	0.003	0.002	0.005	0.003	-	0	0	0	-
Ca	0.087	0.099	0.081	0.074	0.052	0.101	-	0.018	0.019	0.018	-
Mn	0.224	0.386	0.210	0.206	0.198	0.333	-	0.299	0.324	0.323	-
Fe	0.385	0.065	0.435	0.417	0.365	0.132	-	0.016	0.048	0.036	-
Cu	0	0.005	0	0	0	0.004	-	0.065	0.066	0.063	-
Zn	0.003	0.029	0.003	0.003	0.002	0.033	-	0.013	0.038	0.026	-
Na	0.730	0.640	0.696	0.701	0.572	0.553	-	0.589	0.546	0.618	-
OH	3.410	3.999	3.332	3.212	3.275	3.236	-	3.264	3.305	3.654	-
F	0.554	0	0.539	0.740	0.649	0.717	-	0.689	0.650	0.099	-

\* The analyses were carried out for 28 oxygens. The values of H<sub>2</sub>O were quantified by the loss of water obtained from the TGA-DTA method, considering standard samples of structural chemical formulas. Li values were obtained by ICP-MS, and B values by stoichiometric calculus. The F was analyzed by EPMA (Barreto 1999).