

Electron Microprobe Data

Ruff ID: **R050465** Mineral: **Scorodite**

Locality: Minas Gerais, Brazil

Weight Percents

Analysis	#1	#2	#3	#5	#6	#7	#8	#9	#11	#12	#13	#14	#15	#17	#18	#19	#20	Average	StDev
Fe ₂ O ₃	31.90	32.51	32.07	31.84	32.67	32.06	32.14	31.82	31.86	32.74	31.87	32.33	32.46	33.02	32.58	32.13	32.46	32.26	0.37
As ₂ O ₅	50.20	50.61	50.90	50.64	49.78	50.09	50.21	50.32	50.18	50.07	50.50	50.21	50.66	49.95	49.96	50.24	50.00	50.27	0.30
Totals	82.10	83.12	82.97	82.48	82.45	82.15	82.35	82.14	82.04	82.81	82.37	82.54	83.12	82.97	82.54	82.37	82.46	82.53	0.35
H ₂ O**	17.90	16.88	17.03	17.52	17.55	17.85	17.65	17.86	17.96	17.19	17.63	17.46	16.88	17.03	17.46	17.63	17.54	17.47	0.35

Cation numbers normalized to 4 Oxygens

Cation numbers normalized to 4 Oxygens																		ACN	StDev	NCN*	CNISF*
Fe	0.94	0.95	0.94	0.94	0.97	0.95	0.95	0.94	0.94	0.96	0.94	0.95	0.95	0.97	0.96	0.95	0.96	0.951	0.009	0.975	1.00
As	1.03	1.03	1.04	1.04	1.02	1.03	1.03	1.03	1.03	1.02	1.04	1.03	1.03	1.02	1.02	1.03	1.03	1.029	0.006	1.015	1.00
Cation	1.98	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.980	0.004	2.000	

** = calculated values

Ideal Chemistry: Fe³⁺AsO₄·2H₂O

Calculated Chemistry: (Fe³⁺_{1.00})As_{1.00}O₄·2H₂O

Instrument: Cameca SX50

Sample Voltage: 15 kV

Acceleration Current: 10 nA

Beam Size: 10 microns

Date of Analysis: 05/05/2006

ACN: Average Number of Cations

NCN*: Normalized Cation Numbers = ACN*2/1.98 and charge balanced

StDev: Standard Deviation

CNISF: Cation Number In Structural Formulae

* = normalized for each structural site and charge balanced

Microprobe Calibration Data

Xtal	El	Line	Pk(s)	Bkg(s)	Bkg(+)	Bkg(-)	Standards
TAP	As	La	20	10	350	-500	as
LIF	Fe	Ka	20	10	300	-250	fayalite