

## Electron Microprobe Data

Rruff ID: **R050071** Mineral: Arsenopyrite  
**Locality:** Yaogangxian mine, Yizhang County, Hunan Province, China

### Weight Percents

Analysis	#81	#82	#84	#85	#86	#87	#88	#90	#93	#94	#95	#96	#98	#99	#100	Average	StDev
As	45.27	45.60	45.71	46.20	45.92	45.49	45.39	45.63	45.45	45.61	45.66	45.79	45.54	46.49	46.36	45.74	0.34
Fe	33.99	34.28	34.38	34.46	34.64	34.03	34.16	34.44	34.22	34.01	33.77	34.03	34.39	34.03	33.83	34.18	0.24
S	19.77	19.71	19.50	19.52	19.53	19.80	19.73	19.71	19.57	19.76	19.63	19.32	19.72	18.86	19.09	19.55	0.26
Totals	99.03	99.59	99.59	100.18	100.09	99.32	99.28	99.78	99.24	99.38	99.06	99.14	99.65	99.38	99.28	99.68	0.34

### Cation numbers normalized to 1 S

																ACN	STDev	NCN
As	0.98	0.99	1.00	1.01	1.01	0.98	0.99	0.99	0.99	0.99	1.00	1.02	0.99	1.06	1.04	1.002	0.02	1.00
Fe	0.99	1.00	1.01	1.01	1.02	0.99	0.99	1.00	1.00	0.99	0.99	1.01	1.00	1.04	1.02	1.004	0.01	1.00
Totals	1.97	1.99	2.02	2.03	2.02	1.97	1.98	1.99	2.00	1.98	1.98	2.03	1.99	2.09	2.06	2.006	0.03	2.00

Ideal Chemistry: FeAsS  
 Calculated Chemistry: FeAsS

Instrument: Cameca SX50  
 Sample Voltage: 15 kV  
 Acceleration Current: 20 nA  
 Beam Size: Spot  
 Date of Analysis: 01/16/06

ACN: Average Number of Cations  
 NCN: Normalized Cation Numbers = ACN\*2.000/2.006  
 StDev: Standard Deviation

### Microprobe Calibration Data

Xtal	El	Line	Pk(s)	Bkg(s)	Bkg(+)	Bkg(-)	Standards
TAP	As	La	20	10	500	-500	enargite
TAP	Se	La	20	10	500	-500	se_2
LIF	Fe	Ka	20	10	400	-400	chalcopy
LIF	Cu	Ka	20	10	401	-400	enargite
PET	S	Ka	20	10	300	-300	chalcopy
PET	Pb	Ma	20	10	300	-500	galena2
PET	Sb	La	20	10	400	-400	stib2
PET	Sn	La	20	10	400	-400	sn_2