

Table 1 (deposited). Details for samples considered. Brigatti et al. ms 2644, AM-08-821. MayJune Am Min.

Reference (sample label)	Species locality	Composition	Unit cell parameters				Space group
			<i>a</i> (Å)	<i>b</i> (Å)	<i>c</i> (Å)	β (°)	
1 Unpublished (# phl-Fr)	Phlogopite, Franklin, Orange County, NY	(K _{1.00}) (Al _{0.08} Fe ³⁺ _{0.04} Fe ²⁺ _{0.05} Mg _{2.85} Ti _{0.01}) (Si _{3.12} Al _{0.88}) F _{1.31} O _{10.22} (OH) _{0.46}	5.309(1)	9.189(1)	10.150(2)	100.08(1)	C2/m
2 Alietti et al. (1995) (# phl-2a)	Phlogopite, Predazzo-Monzoni, Italy	(K _{0.95} Na _{0.02} Ba _{0.01}) (Al _{0.18} Fe ³⁺ _{0.15} Fe ²⁺ _{0.03} Mg _{2.63} Ti _{0.01}) (Si _{2.60} Al _{1.40}) O _{9.93} F _{0.11} (OH) _{1.96}	5.305(2)	9.189(3)	10.286(3)	99.96(2)	C2/m
3 Brigatti et al. (1996) (# Tae23-1)	Phlogopite, Tapira (Brazil)	(K _{0.93} Na _{0.05} Ba _{0.02}) (Fe ³⁺ _{0.16} Fe ²⁺ _{0.09} Mg _{2.65} Ti _{0.08}) (Si _{2.84} Al _{1.04} Fe ³⁺ _{0.12}) O _{10.17} F _{0.01} (OH) _{1.82}	5.321(1)	9.211(2)	10.287(1)	99.93(1)	C2/m
4 Brigatti et al. (1999) (# Tai17-1)	Ferroan phlogopite, Tapira (Brazil)	(K _{0.98} Na _{0.02} Ba _{0.01}) (Fe ³⁺ _{0.10} Fe ²⁺ _{0.44} Mg _{2.36} Mn _{0.01} Ti _{0.09}) (Si _{2.82} Al _{1.10} Fe ³⁺ _{0.08}) O _{10.12} (OH) _{1.88}	5.3355(8)	9.2457(7)	10.294(2)	99.94(1)	C2/m
5 Brigatti et al. (1999) (# Tag15-4)	Ferroan phlogopite, Tapira (Brazil)	(K _{0.95} Na _{0.02} Ba _{0.03}) (Fe ³⁺ _{0.23} Fe ²⁺ _{0.38} Mg _{2.25} Mn _{0.01} Ti _{0.13}) (Si _{2.76} Al _{1.17} Fe _{0.07}) O _{10.28} F _{0.05} (OH) _{1.68}	5.332(1)	9.230(2)	10.267(1)	99.99(1)	C2/m
6 Brigatti et al. (1996) (# Tag15-3)	Ferroan phlogopite, Tapira (Brazil)	(K _{0.92} Ba _{0.02}) (Fe ³⁺ _{0.25} Fe ²⁺ _{0.34} Mg _{2.19} Mn _{0.01} Ti _{0.13}) (Si _{2.74} Al _{1.15} Fe ³⁺ _{0.11}) O _{10.04} F _{0.05} (OH) _{1.91}	5.329(2)	9.228(2)	10.258(3)	100.03(3)	C2/m
7 Brigatti and Poppi (1993) (# 19)	Ferroan phlogopite, Colli Euganei (Italy)	(K _{0.90} Na _{0.07} Ba _{0.03}) (Al _{0.02} Fe ³⁺ _{0.39} Fe ²⁺ _{0.60} Mg _{1.61} Mn _{0.01} Ti _{0.37}) (Si _{2.75} Al _{1.25}) O _{11.93} F _{0.23} (OH) _{0.84}	5.331(1)	9.230(2)	10.160(2)	100.19(1)	C2/m
8 Schingaro et al. (2005) (# BHG-1)	Ferroan phlogopite, Black Hills, Australia	(K _{0.95}) (Al _{0.10} Fe ³⁺ _{0.04} Fe ²⁺ _{1.18} Mg _{1.27} Ti _{0.41}) (Si _{2.81} Al _{1.19}) Cl _{0.03} F _{0.01} O _{10.00} (OH) _{1.96}	5.347(1)	9.261(2)	10.195(2)	100.29(1)	C2/m
9 Brigatti et al. (1998) (# wa8H)	Magnesian annite, Warburton, (Australia)	(K _{0.89} Na _{0.03} Ca _{0.03} Ba _{0.02}) (Al _{0.18} Fe ³⁺ _{0.13} Fe ²⁺ _{1.20} Mg _{1.19} Mn _{0.02} Ti _{0.29}) (Si _{2.82} Al _{1.18}) O _{10.76} F _{0.14} Cl _{0.05} (OH) _{1.05}	5.344(1)	9.258(1)	10.232(1)	100.15(1)	C2/m
10 Brigatti et al. (2000) (# 120)	Annite, Pikes Peak, Colorado	(K _{0.99} Na _{0.01}) (Al _{0.13} Fe ³⁺ _{0.21} Fe ²⁺ _{2.29} Mg _{0.10} Mn _{0.01} Ti _{0.25}) (Si _{3.14} Al _{0.86}) F _{0.26} O _{10.95} (OH) _{0.79}	5.384(1)	9.324(1)	10.254(1)	100.86(1)	C2/m
11 Brigatti et al. (1996) (# Tpql6-6B)	Tetra- ferriphlogopite, Tapira (Brazil)	(K _{0.95} Na _{0.02}) (Fe ³⁺ _{0.23} Fe ²⁺ _{0.20} Mg _{2.54} Ti _{0.02}) (Si _{3.15} Al _{0.04} Fe ³⁺ _{0.81}) O _{10.34} F _{0.10} (OH) _{1.56}	5.356(1)	9.284(2)	10.309(3)	100.03(2)	C2/m
12 Brigatti et al. (1996) (# Tas22-1)	Tetra- ferriphlogopite, Tapira (Brazil)	(K _{0.98} Na _{0.02}) (Fe ³⁺ _{0.06} Fe ²⁺ _{0.17} Mg _{2.75} Mn _{0.01} Ti _{0.01}) (Si _{3.07} Fe ³⁺ _{0.93}) O _{10.17} F _{0.05} (OH) _{1.78}	5.358(2)	9.277(3)	10.308(2)	99.99(4)	C2/m
13 Brigatti et al. (2000) (# 47)	Li-siderophyllite, Pikes Peak, Lake George Ring complex, Colorado	(K _{0.99} Na _{0.01}) (Al _{0.81} Fe ³⁺ _{0.09} Fe ²⁺ _{1.40} Mg _{0.04} Mn _{0.08} Ti _{0.10} Li _{0.41}) (Si _{3.06} Al _{0.94}) F _{1.08} O _{10.64} (OH) _{0.28}	5.339(1)	9.233(1)	10.135(2)	100.73(1)	C2
14 Brigatti et al. (2000) (# 55)	Fe-polyolithionite, Pikes Peak, Wigwam Creek, Colorado	(K _{0.94}) (Al _{1.12} Fe ³⁺ _{0.05} Fe ²⁺ _{0.50} Mg _{0.01} Mn _{0.04} Ti _{0.01} Li _{1.11}) (Si _{3.41} Al _{0.59}) F _{1.63} O _{10.17} (OH) _{0.21}	5.270(1)	9.092(1)	10.080(1)	100.70(1)	C2
15 Brigatti et al. (2000) (# 104)	Polyolithionite- siderophyllite intermediate, Pikes Peak, Wigwam Creek, Colorado	(K _{0.96} Na _{0.02}) (Al _{1.03} Fe ³⁺ _{0.14} Fe ²⁺ _{0.64} Mg _{0.01} Mn _{0.01} Ti _{0.01} Li _{0.97}) (Si _{3.30} Al _{0.70}) F _{1.61} O _{10.15} (OH) _{0.24}	5.285(1)	9.122(2)	10.101(2)	100.85(1)	C2
16 Unpublished (# 66)	Polyolithionite- siderophyllite intermediate, Pikes Peak, Harris Park, Colorado	(K _{1.00}) (Al _{0.71} Fe ³⁺ _{0.04} Fe ²⁺ _{1.48} Mn _{0.03} Ti _{0.03} Li _{0.75}) (Si _{2.98} Al _{1.02}) Na _{0.02} K _{0.99} F _{1.05} (OH) _{0.93} O _{10.02}	5.3214(8)	9.221(1)	10.116(2)	100.11(1)	C2