

Table 2: Electron Microprobe analyses of individual synthetic crystalline phases.

Lab label	Hd ₉₀ 96-1	Hd C	Hd ₉₀ 93-1	Ilm 100	Ilm ₉₅ 93-1	Ilm 94-1 (+ 2-3% Mt)
no of analyses	19	9	10	9	8	19
Element wt % (1)						
Ca	14.05(0.62)	15.88(0.12)	14.74(0.41)	0.00(0.00)	0.00(0.00)	0.00(0.00)
Fe	25.09(0.97)	22.41(0.21)	24.22(0.55)	36.47(0.17)	38.28(0.14)	37.56(0.50)
Ti	0.01(0.02)	0.01(0.01)	0.00(0.00)	30.89(0.22)	29.10(0.13)	30.45(0.17)
Si	22.20(0.32)	22.12(0.18)	22.14(0.16)	0.01(0.00)	0.01(0.01)	0.01(0.01)
O	38.32(0.59)	38.18(0.56)	37.93(0.57)	31.44(0.61)	31.00(0.49)	31.49(0.50)
TOTAL	99.67	98.60	99.03	98.81	98.57	99.51
Formula (1)						
Ca	0.88(0.03)	1.00(0.01)	0.93(0.02)	0.00(0.00)	0.00(0.00)	0.00(0.00)
Fe	1.13(0.05)	1.01(0.01)	1.10(0.03)	1.00(0.01)	1.06(0.01)	1.03(0.01)
Ti	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.99(0.01)	0.94(0.01)	0.97(0.01)
Si	1.98(0.03)	1.98(0.03)	1.99(0.02)	0.00(0.00)	0.00(0.00)	0.00(0.00)
O	6.01(0.05)	6.01(0.05)	5.99(0.04)	3.01(0.02)	3.00(0.02)	3.00(0.02)

Table 2 continued: Electron Microprobe analyses of individual synthetic crystalline phases.

Lab label	Fe ₃ O ₄ from J.L. Haas Jr.	Mt ₁₀₀ 95-1	Usp ₆₀ 93-1	Usp ₈₀ 94-1	Fay _{compn} of 10-28-93
no of analyses	11	6	14	14	14
Element wt % (1)					
Ca	0.00(0.01)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)
Fe	72.41(0.25)	72.53(0.37)	59.73(0.51)	54.85(0.39)	55.29(0.25)
Ti	0.00(0.00)	0.00(0.00)	12.66(0.37)	16.79(0.24)	0.00(0.00)
Si	0.02(0.01)	0.02(0.01)	0.02(0.01)	0.01(0.01)	13.63(0.11)
O	27.29(0.58)	27.57(0.22)	28.09(0.33)	28.16(0.67)	31.17(0.47)
TOTAL	99.73	100.12	100.49	99.82	100.1
Formula (1)					
Ca	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)
Fe	3.02(0.04)	3.01(0.01)	2.42(0.02)	2.22(0.03)	2.02(0.02)
Ti	0.00(0.00)	0.00(0.00)	0.60(0.02)	0.79(0.02)	0.00(0.00)
Si	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.99(0.01)
O	3.98(0.04)	3.99(0.01)	3.98(0.02)	3.98(0.04)	3.98(0.03)

Table 3: Electron microprobe analyses of synthetic crystalline phases in (unreacted) starting mechanical mixtures.

Mechanical Mixture	Ttn- Mt-Qz	3Ttn-Fa	3Ttn-Fa	Wo ₅₀ Fs ₅₀ -Il ₁₀₀	Wo ₄₅ Fs ₅₅ -3Il ₉₅
Phase	Titanite	Titanite	Fayalite	Hedenbergite	Hedenbergite
no of analyses	5	5	6	8	6
Element wt % (1)					
Ca	19.77(0.17)	20.17(0.08)	0.40(0.07)	15.52(0.36)	13.94(1.00)
Fe	0.65(0.07)	0.35(0.01)	53.46(0.40)	23.08(0.34)	25.71(1.29)
Ti	24.99(0.99)	24.76(0.10)	0.73(0.10)	0.43(0.23)	0.92(0.27)
Si	13.83(0.42)	13.81(0.06)	13.44(0.13)	21.87(0.32)	21.69(0.39)
O	40.45(0.53)	41.82(0.17)	31.19(0.60)	37.97(0.30)	38.25(0.50)
TOTAL	99.69	100.91	99.22	98.87	100.52
Formula (1)					
Ca	0.98(0.00)	0.97(0.04)	0.02(0.00)	0.98(0.04)	0.87(0.06)
Fe	0.02(0.00)	0.01(0.00)	1.96(0.02)	1.04(0.02)	1.15(0.05)
Ti	1.03(0.01)	1.00(0.00)	0.03(0.00)	0.02(0.01)	0.05(0.01)
Si	0.97(0.04)	0.95(0.04)	0.98(0.02)	1.97(0.02)	1.94(0.03)
O	5.00(0.02)	5.06(0.02)	4.00(0.03)	5.99(0.02)	5.99(0.05)

Table 3 continued

Mechanical Mixture Phase no of analyses Element wt % (1)	Wo ₅₀ Fs ₅₀ -Il ₁₀₀ Ilmenite 8	Wo ₅₀ Fs ₅₀ -Il ₉₅ Ilmenite 8
Ca	0.34(0.04)	0.30(0.04)
Fe	36.63(0.32)	38.02(0.46)
Ti	30.62(0.19)	29.69(0.44)
Si	0.03(0.00)	0.03(0.02)
O	30.97(0.34)	31.67(1.11)
TOTAL	98.59	99.72
Formula (1)		
Ca	0.01(0.00)	0.01(0.00)
Fe	1.01(0.01)	1.04(0.01)
Ti	0.02(0.01)	0.94(0.03)
Si	0.99(0.00)	0.00(0.00)
O	2.99(0.02)	3.01(0.04)

Table 4a: Titanite electron microprobe analyses.

Run no bars, °C, buffer REACTANTS no of analyses ELEMENT wt % (1)	HIFT-92 2000, 800, WM 3Ttn-Fa 5	HIFT-11 2000, 699, WM Ttn-Fa 9	HIFT-96 <1, 900, Fe-sat 3Ttn-Fa 10	HIQMT-145 <1, 800, FMQ Wo ₅₀ Fs ₅₀ -Il ₁₀₀ 11	HIQMT-114 3700, 800, FMQ Ttn- Mt-Qz 6
Ca	20.01(0.30)	19.64(0.55)	19.70(0.45)	20.41(0.42)	19.29(0.33)
Fe	0.81(0.50)	1.47(1.62)	0.57(0.21)	0.87(0.43)	0.77(0.07)
Ti	23.84(0.89)	22.77(1.96)	24.48(0.69)	23.98(0.57)	24.66(0.59)
Si	14.08(0.39)	14.12(0.81)	14.19(0.74)	14.39(0.32)	13.50(0.30)
O	40.03(0.66)	41.34(1.21)	40.76(0.80)	40.50(1.22)	40.26(0.80)
TOTAL	98.76	99.33	99.70	100.15	98.48
Formula (1)					
Ca	0.99(0.02)	0.96(0.03)	0.97(0.02)	1.00(0.02)	0.96(0.02)
Fe	0.03(0.02)	0.05(0.06)	0.02(0.01)	0.03(0.02)	0.03(0.00)
Ti	0.99(0.03)	0.93(0.08)	1.01(0.03)	0.98(0.02)	1.03(0.03)
Si	1.00(0.03)	0.99(0.06)	0.99(0.04)	1.01(0.03)	0.96(0.02)
O	4.99(0.05)	5.07(0.09)	5.01(0.04)	4.98(0.06)	5.02(0.05)

Table 4a continued: Titanite electron microprobe analyses.

Run no bars, °C, buffer REACTANTS no of analyses ELEMENT wt % (1)	HIQMT-148 3000, 700, FMQ Ttn-Usp ₂₅ -Qz 8	HIQMT-154 2000, 690, FMQ Ttn-Usp ₆₀ -Qz 7
Ca	19.64(0.15)	19.98(0.32)
Fe	0.68(0.34)	0.81(0.09)
Ti	24.60(0.14)	24.83(0.85)
Si	13.78(0.16)	13.65(0.24)
O	40.16(0.40)	40.87(0.34)
TOTAL	98.87	100.15
Formula (1)		
Ca	0.98(0.01)	0.98(0.01)
Fe	0.02(0.01)	0.03(0.00)
Ti	1.02(0.01)	1.02(0.03)
Si	0.98(0.01)	0.96(0.02)
O	5.00(0.02)	5.02(0.02)

Table 4b: Fayalite electron microprobe analyses.

Run no bars, °C, buffer REACTANTS no of analyzed grains ELEMENT wt % (1)	HIFT-9 2000, 800, WM Ttn-Fa 8	HIFT-11 2000, 699, WM Ttn-Fa 8	HIFT-13b 2000, 700, CCO Ttn-Fa 4	HIFT-15b 2000, 595, CCO Ttn-Fa 6
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Ca	0.20(0.08)	0.19(0.02)	0.20(0.05)	0.18(0.03)
Fe	53.91(0.31)	53.96(0.23)	54.99(0.20)	54.40(0.33)
Ti	0.26(0.10)	0.39(0.05)	0.41(0.09)	0.38(0.06)
Si	13.46(0.20)	13.43(0.26)	13.82(0.16)	13.41(0.13)
O	31.11(0.69)	31.12(0.25)	31.85(0.20)	30.54(0.50)
TOTAL	98.94	99.09	101.27	98.91
Formula (1)				
Ca	0.01(0.00)	0.01(0.00)	0.01(0.00)	0.01(0.00)
Fe	1.99(0.02)	1.99(0.02)	1.98(0.02)	2.02(0.02)
Ti	0.01(0.00)	0.02(0.00)	0.02(0.00)	0.02(0.00)
Si	0.99(0.02)	0.99(0.02)	0.99(0.01)	0.99(0.02)
O	4.00(0.04)	4.00(0.02)	4.00(0.00)	3.96(0.03)

Table 4c: Hedenbergite electron microprobe analyses.

Run no	HIFT-92	HIFT-90	HIFT-13b	HIFT-15b	HIFT-9
bars, °C, buffer	3400, 750, CCO	2000, 800, CCO	2000, 700, CCO	2000, 595, CCO	2000, 800, WM
REACTANTS	3Ttn-Fa	3Ttn-Fa	Ttn-Fa	Ttn-Fa	Ttn-Fa
no of analyses	4	13	6	10	4
ELEMENT wt % (1)					
Ca	12.59(0.73)	13.47(0.76)	14.20(0.62)	14.33(0.72)	15.23(0.33)
Fe	26.47(0.69)	24.36(0.88)	25.45(0.94)	24.39(0.73)	23.12(0.62)
Ti	1.03(0.53)	1.03(0.51)	0.63(0.25)	0.65(0.63)	0.96(0.37)
Si	21.45(0.40)	21.56(0.32)	22.20(0.25)	21.66(0.30)	21.98(0.25)
O	37.76(0.53)	37.81(0.54)	38.65(0.38)	38.02(1.13)	38.13(0.32)
TOTAL	99.30	99.24	101.13	99.05	99.42
Formula (1)					
Ca	0.78(0.04)	0.86(0.05)	0.88(0.04)	0.90(0.04)	0.96(0.02)
Fe	1.20(0.04)	1.11(0.04)	1.13(0.04)	1.10(0.04)	1.04(0.03)
Ti	0.05(0.03)	0.05(0.03)	0.03(0.01)	0.03(0.03)	0.05(0.02)
Si	1.94(0.04)	1.96(0.03)	1.96(0.01)	1.95(0.04)	1.97(0.02)
O	6.00(0.01)	6.02(0.03)	6.00(0.01)	6.01(0.07)	5.99(0.01)

Table 4c continued: Hedenbergite electron microprobe analyses.

Run no	HIFT-11	HIFT-88b	HIQMT-148	HIQMT-61	HIQMT-108
bars, °C, buffer	2000, 699, WM	<1, 900	3000, 700, FMQ	1985, 749, CCO	3800, 675, FMQ
REACTANTS	Ttn-Fa	Ttn-Fa	Ttn-Usp ₂₅ -Qz	Ttn-Usp ₅₀ -Qz	Ttn- Mt-Qz
no of analyses	7	6	14	13	8
ELEMENT wt % (1)					
Ca	13.95(0.43)	14.68(0.25)	13.95(0.40)	14.18(0.50)	14.22(0.60)
Fe	23.96(0.58)	24.50(0.56)	24.56(0.65)	24.40(0.73)	25.14(0.67)
Ti	0.97(0.39)	0.60(0.27)	0.27(0.14)	0.72(0.38)	0.33(0.11)
Si	21.50(0.31)	21.76(0.28)	21.94(0.26)	21.94(0.40)	22.41(0.32)
O	37.76(0.72)	38.32(0.50)	37.70(0.37)	38.31(0.57)	38.71(0.56)
TOTAL	98.14	99.86	98.43	99.54	100.81
Formula (1)					
Ca	0.89(0.03)	0.92(0.01)	0.89(0.03)	0.89(0.03)	0.88(0.03)
Fe	1.10(0.02)	1.10(0.02)	1.12(0.03)	1.10(0.03)	1.12(0.03)
Ti	0.05(0.02)	0.03(0.01)	0.01(0.01)	0.04(0.02)	0.02(0.01)
Si	1.96(0.03)	1.94(0.01)	1.99(0.02)	1.96(0.03)	1.98(0.01)
O	6.00(0.05)	6.01(0.02)	5.99(0.02)	6.01(0.05)	6.00(0.02)

Table 4c continued: Hedenbergite electron microprobe analyses.

Run no	HIQMT - 116B	HIQMT - 10	HIFT-15a	HIFT-10	HIFT-12
bars, °C, buffer	3400, 750, FMQ	1020, 699, CCO	2000, 595, CCO	2000, 800, WM	2000, 699, WM
REACTANTS	Ttn- Mt-Qz	Ttn- Mt-Qz	Wo ₄₅ Fs ₅₅ -Il ₁₀₀	Wo ₅₀ Fs ₅₀ -Il ₁₀₀	Wo ₅₀ Fs ₅₀ -Il ₁₀₀
no of analyses	9	6	3	4	10
ELEMENT wt % (1)					
Ca	14.23(0.38)	14.56(1.24)	14.83(0.22)	15.49(0.42)	15.43(0.48)
Fe	25.34(0.49)	23.12(1.19)	24.26(0.23)	22.95(0.36)	23.16(0.56)
Ti	0.37(0.09)	0.34(0.15)	0.30(0.10)	0.46(0.21)	0.45(0.20)
Si	22.43(0.17)	22.59(0.26)	21.83(0.17)	21.70(0.14)	21.62(0.23)
O	38.85(0.35)	39.00(0.43)	37.93(0.28)	38.10(0.57)	38.38(0.40)

TOTAL	101.22	101.61	99.15	98.7	99.04
Formula (1)					
Ca	0.88(0.02)	0.89(0.07)	0.94(0.01)	0.98(0.03)	0.97(0.03)
Fe	1.12(0.02)	1.10(0.06)	1.10(0.02)	1.04(0.02)	1.04(0.03)
Ti	0.02(0.01)	0.02(0.01)	0.02(0.01)	0.02(0.01)	0.02(0.01)
Si	1.98(0.01)	1.98(0.01)	1.96(0.01)	1.95(0.01)	1.94(0.02)
O	6.01(0.02)	6.00(0.01)	5.99(0.01)	6.01(0.02)	6.03(0.03)

Table 4c: Hedenbergite electron microprobe analyses.

Run no	HIQMT-60	HIQMT-58
bars, °C, buffer	1985, 749, CCO	1000, 803, CCO
REACTANTS	Wo ₄₅ Fe ₃₅ -Il ₉₀	Wo ₄₅ Fe ₃₅ -Il ₉₀
no of analyses	11	5
ELEMENT wt % (1)		
Ca	14.27(0.47)	14.62(0.20)
Fe	25.07(0.68)	25.15(0.19)
Ti	0.62(0.55)	0.36(0.09)
Si	21.71(0.37)	21.77(0.23)
O	38.30(0.79)	37.85(0.46)
TOTAL	99.98	99.74
Formula (1)		
Ca	0.89(0.03)	0.92(0.01)
Fe	1.13(0.03)	1.14(0.01)
Ti	0.03(0.03)	0.02(0.00)
Si	1.94(0.04)	1.96(0.02)
O	6.01(0.05)	5.97(0.04)

Table 4d: Ilmenite electron microprobe analyses.

RUN no	HIFT-92	HIFT-90	HIFT-13b	HIFT-15b	HIFT-9
bars, °C, buffer	3400, 750, CCO	2000, 800, CCO	2000, 700, CCO	2000, 595, CCO	2000, 800, WM
REACTANTS	3Ttn-Fa	3Ttn-Fa	Ttn-Fa	Ttn-Fa	Ttn-Fa
no of analyses	9	13	5	8	8
ELEMENT wt % (1)					
Ca	0.72 (0.16)	0.74(0.15)	0.45(0.23)	0.30 (0.11)	0.61 (0.20)
Fe	37.23(0.85)	36.48(0.35)	38.48(0.33)	37.56(0.26)	36.61 (0.62)
Ti	29.52(0.55)	29.08(0.37)	28.99(0.25)	29.75(0.15)	29.60 (0.70)
Si	0.15(0.12)	0.13(0.10)	0.16(0.15)	0.08(0.10)	0.41 (0.35)
O	31.38(0.42)	31.58(1.18)	30.91(0.33)	31.81(0.73)	31.70 (0.41)
TOTAL	99.00	98.01	99.01	99.50	98.93
Formula (1)					
Ca	0.03(0.01)	0.03(0.01)	0.02(0.01)	0.01(0.00)	0.02 (0.01)
Fe	1.02(0.02)	1.00(0.02)	1.06(0.01)	1.02(0.02)	1.01 (0.02)
Ti	0.94(0.02)	0.93(0.02)	0.93(0.01)	0.94(0.02)	0.95 (0.02)
Si	0.01(0.01)	0.01(0.01)	0.01(0.01)	0.00(0.01)	0.02 (0.02)
O	3.00(0.02)	3.03(0.05)	2.98(0.01)	3.02(0.03)	3.01 (0.03)

Table 4d: Ilmenite electron microprobe analyses.

RUN no	HIFT-11	HIFT-88b	HIQMT-61	HIQMT-59	HIQMT-63
bars, °C, buffer	2000, 699, WM	900, <1 atm	1985, 749, CCO	1000, 803, CCO	1001, 701, CCO
REACTANTS	Ttn-Fa	Ttn-Fa	Ttn-Usp ₅₀ -Qz	Ttn-Usp ₅₀ -Qz	Ttn-Usp ₅₀ -Qz
no of analyses	5	4	10	14	14
ELEMENT wt % (1)					
Ca	0.43(0.01)	0.56 (0.06)	0.34(0.16)	0.40(0.11)	0.43(0.27)
Fe	36.45(0.25)	36.56(0.16)	37.52(0.63)	38.57(0.39)	38.31(0.94)
Ti	30.09(0.21)	30.86(0.16)	29.53(0.41)	29.42(0.52)	29.85(1.33)
Si	0.12(0.03)	0.15(0.14)	0.10(0.01)	0.21(0.52)	0.14(0.20)
O	31.57(0.44)	32.09(0.35)	31.11(0.41)	31.94(0.97)	31.37(1.07)
TOTAL	98.66	100.22	98.60	100.54	100.10
Formula (1)					
Ca	0.02(0.00)	0.02(0.00)	0.01(0.01)	0.01(0.00)	0.02(0.01)
Fe	1.00(0.01)	0.99(0.01)	1.04(0.02)	1.04(0.01)	1.04(0.03)
Ti	0.96(0.01)	0.97(0.01)	0.95(0.01)	0.93(0.03)	0.95(0.03)
Si	0.01(0.00)	0.01(0.01)	0.01(0.01)	0.01(0.01)	0.01(0.01)

O 3.02(0.02) 3.02(0.01) 3.00(0.01) 3.01(0.03) 2.98(0.04)

Table 4d: Ilmenite electron microprobe analyses.

RUN no	HIQMT-148	HIQMT-108	HIQMT-116B	HIQMT-118	HIFT-89
bars, °C, buffer	3000, 700, FMQ	3800, 675, FMQ	3400, 750, FMQ	3400, 700, FMQ	2000, 800, CCO
REACTANTS	Ttn-Usp ₂₅ -Qz	Ttn- Mt-Qz	Ttn- Mt-Qz	Ttn- Mt-Qz	Wo ₄₅ Fs ₅₅ -Il ₉₅
no of analyses	12	8	10	14	6
ELEMENT wt % (1)					
Ca	0.26(0.14)	0.23(0.08)	0.32(0.32)	0.30(0.07)	0.16(0.05)
Fe	39.30(0.32)	39.42(0.50)	39.40(0.45)	39.70(0.18)	38.57(0.31)
Ti	28.57(0.46)	28.92(0.31)	29.03(0.26)	29.00(0.15)	29.10(0.26)
Si	0.04(0.07)	0.03(0.02)	0.07(0.16)	0.03(0.03)	0.01(0.00)
O	30.94(1.24)	31.97(0.62)	31.91(0.31)	32.01(0.40)	30.75(0.21)
TOTAL	99.11	100.57	100.74	101.03	98.56
Formula (1)					
Ca	0.01(0.01)	0.01(0.00)	0.01(0.01)	0.01(0.00)	0.01(0.00)
Fe	1.09(0.03)	1.07(0.01)	1.06(0.02)	1.07(0.01)	1.07(0.00)
Ti	0.92(0.03)	0.91(0.01)	0.91(0.01)	0.91(0.01)	0.94(0.01)
Si	0.00(0.00)	0.00(0.00)	0.00(0.01)	0.00(0.00)	0.00(0.00)
O	2.98(0.06)	3.01(0.01)	3.01(0.01)	3.01(0.02)	2.98(0.01)

Table 4d continued: Ilmenite electron microprobe analyses.

Run no	HIFT-13a	HIFT-15a	HIFT-10	HIFT-12	HIQMT-58
bars, °C, buffer	2000, 700, CCO	2000, 595, CCO	2000, 800, WM	2000, 699, WM	1000, 803, CCO
REACTANTS	Wo ₄₅ Fs ₅₅ -Il ₁₀₀	Wo ₅₀ Fs ₅₀ -Il ₁₀₀	Wo ₅₀ Fs ₅₀ -Il ₁₀₀	Wo ₅₀ Fs ₅₀ -Il ₁₀₀	Wo ₄₅ Fs ₅₅ -Il ₉₀
no of analyses	3	8	7	11	5
ELEMENT wt % (1)					
Ca	0.19(0.04)	0.18(0.03)	0.33 (0.06)	0.26 (0.04)	0.39(0.04)
Fe	37.37(0.07)	36.64(0.16)	36.67 (0.18)	36.54 (0.22)	404.40(0.56)
Ti	30.65(0.18)	31.55(0.17)	30.78 (0.10)	31.28 (0.17)	27.72(0.53)
Si	0.03(0.02)	0.02(0.03)	0.04 (0.03)	0.02 (0.01)	0.10(0.09)
O	31.78(1.43)	32.16(0.43)	31.85 (0.27)	31.89 (0.45)	31.05(0.40)
TOTAL	99.82	100.55	99.67	99.99	99.66
Formula (1)					
Ca	0.01(0.00)	0.02(0.00)	0.01 (0.00)	0.01 (0.00)	0.02(0.00)
Fe	1.01(0.03)	0.98(0.01)	1.00 (0.00)	0.99 (0.01)	1.11(0.01)
Ti	0.97(0.03)	0.99(0.01)	0.97 (0.02)	0.99 (0.01)	0.89(0.02)
Si	0.00(0.00)	0.00(0.00)	0.00 (0.00)	0.00 (0.00)	0.01(0.00)
O	3.01(0.06)	3.02(0.01)	3.02 (0.01)	3.01 (0.02)	2.98(0.01)

Table 4d continued: Ilmenite electron microprobe analyses.

Run no	HIQMT-60
bars, °C, buffer	1985, 749, CCO
REACTANTS	Wo ₄₅ Fs ₅₅ -Il ₉₀
no of analyses	9
ELEMENT wt % (1)	
Ca	0.27(0.19)
Fe	40.09(0.42)
Ti	27.55(0.46)
Si	0.18(0.31)
O	31.91(0.75)
TOTAL	100.00
Formula (1)	
Ca	0.01(0.01)
Fe	1.09(0.02)
Ti	0.87(0.02)
Si	0.01(0.02)
O	3.02(0.02)

Table 4e: Magnetite electron microprobe analyses

Run no	HIQMT-135	HIQMT-153	HIQMT-3	HIQMT-145
bars, °C, buffer	2000, 800, FMQ	2000, 690, FMQ	1020, 800, FMQ	<1, 800, FMQ
REACTANTS	Wo ₅₀ Fs ₅₀ -Il ₁₀₀	Wo ₄₅ Fs ₅₅ -3Il ₉₅	Wo ₄₅ Fs ₅₅ -3Il ₁₀₀	Wo ₄₅ Fs ₅₅ -Il ₁₀₀
no of analyses	14	2	10	10

ELEMENT wt % (1)				
Ca	0.24(0.05)	0.14(0.01)	0.57(0.34)	0.20(0.04)
Fe	62.75(0.91)	68.65(0.087)	61.09(0.93)	62.48(0.36)
Ti	8.91(0.77)	3.81(0.17)	9.27(0.74)	9.60(0.07)
Si	0.10(0.06)	0.03(0.00)	0.38(0.34)	0.07(0.04)
O	28.10(0.59)	27.93(0.15)	27.63(0.55)	28.31(0.84)
TOTAL	100.09	100.56	98.94	100.66
Formula (1)				
Ca	0.01(0.00)	0.01(0.00)	0.03(0.02)	0.01(0.00)
Fe	2.56(0.05)	2.81(0.03)	2.52(0.06)	2.53(0.05)
Ti	0.42(0.04)	0.18(0.01)	0.45(0.03)	0.45(0.01)
Si	0.01(0.01)	0.00(0.00)	0.03(0.03)	0.01(0.00)
O	4.00(0.04)	3.99(0.03)	3.97(0.02)	4.00(0.05)