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Supplement of

The Neolithic greenstone industry of Chiomonte (northwestern Italy): mineralogy, petrography and archaeometric implications

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Supplementary Material

Tables

	State Inventory	Excavation inventory	Other inventories	Implement function	Lithotype	Notes (stereomicroscopy in reflected light/density values)	Weight in air (g)	Weight in H_2O (g)	Density (g/cm^3)	Sampling
1		1343		pebble?	**(???)**	NO *greenstone*?	52.8	34.8	2.93	=
2		2099		splinter	**(???)**	too small to provide a reliable weighing	=	=	=	=
3		3021		fragment?	**(???)**	it contains mica, carbonates and (maybe) magnetite	53.8	34.3	2.76	=
4		4774		(striped) pendant?	**(???)**	NO *greenstone*	110	73.5	3.01	=
5		5379		roughout?	**(???)**	carbonate crystals in a biotite or chlorite matrix	177.5	118.6	3.01	=
6		6637		fragment?	**(???)**	rich in phyllosilicates	55.8	38.3	3.19	=
7		9204		fragment?	**(???)**	NO *greenstone*	43.5	29.5	3.11	=
8		9305		roughout?	**(???)**	carbonate crystals in a biotite matrix	369.6	244.8	2.96	=
9		4838		small striker	**ophiolitic gabbro**	= = =	33.1	22.2	3.04	=
10		9343		axe talon	**albitite**	albite is almost the sole appreciable phase	21.8	14.7	3.07	=
11		3595		(unidentified tool) ???	**chalc-mica-schist**	NO *greenstone*	571.4	356.10	2.65	=
12	75777	3601	Museum	millstone	**chalc-mica-schist**	= = =	=	=	=	=
13	86453	1000		(striped) pendant?	**chloritite**	NO *greenstone* - only phyllosilicates (chlorite?) are visible	71.3	43.5	2.56	XRD
14	86451	3256		(striped) pendant?	**chloritite**	NO *greenstone* - phyllosilicates are visible (chlorite and micas?)	163.2	102.9	2.71	XRD
15		5213		axe fragment	**chloritite with magnetite**	= = =	52.4	33.8	2.82	=
16		3018		splinter	**chloritite** w/amph., omph., pl.	w/scarce jadeite too; amphibole is actinolite (too small for weighing)	=	=	=	XRD
17		4932		splinter	**clhorite-schist**	= = =	25.7	15.7	2.57	=
18		461	CMIX	axe fragment	**eclogite**	presence of various pyroxenes; possible pseudomorphosis on lawsonite	65.6	46.7	3.47	=
19	67151	825		axe fragment	**eclogite**	= = =	37.5	26.5	3.41	=
20		2448		axe fragment	**eclogite**	= = =	31.8	22.6	3.46	=
21		3088		axe fragment	**eclogite**	eclogitic domains with atoll-like garnets and sulfides	88.4	62.1	3.36	XRD/SEM-EDS
22		3110		chisel fragment	**eclogite**	lineation marked by rutile or ilmenite	26.6	19.2	3.59	=
23		3306		axe talon	**eclogite**	= = =	32.8	23.2	3.42	=
24	67139	3529		axehead	**eclogite**	rich in garnets, with amphibole (dark areas)	67.4	48.2	3.51	=
25		3772		axehead	**eclogite**	= = =	164.9	118.2	3.53	=
26		4205		axe fragment	**eclogite**	= = =	156.9	112.9	3.57	=
27		4217		small chisel	**eclogite**	comprehensive of a (apparently modern) groove	11.1	8	3.58	XRD
28		4321		splinter	**eclogite**	too small to provide a reliable weighing	=	=	=	=
29		4356		axehead/small chisel	**eclogite**	porphyroblastic garnet	58.4	41.5	3.46	=
30		4637		small, elongated axehead	**eclogite**	= = =	16.2	11.5	3.45	=

31		4829		axe roughout	**eclogite**	big porphyroblastic garnets	165.9	116	3.32	=
32	67157	5236	Museo	axe fragment	**eclogite**	= = =	99.2	70.5	3.46	=
33		5653		hatchet	**eclogite**	= = =	21.4	15.4	3.57	XRD/SEM-EDS
34	67154	5881		axehead	**eclogite**	= = =	624.2	448.9	3.56	=
35	67150	6549		small chisel fragment	**eclogite**	weighing not definitely reliable	5.4	3.8	3.38	=
36		7144		axe fragment	**eclogite**	= = =	110	79	3.55	XRD/SEM-EDS
37		7254		axe fragment	**eclogite**	= = =	36.4	26	3.50	=
38		8168		axe fragment	**eclogite**	porphyroblastic garnet	51.7	35.7	3.23	=
39		8722		axe talon	**eclogite**	porphyroblasts of white mica bianca and carbonatic vein (calcite)	140	99.5	3.46	=
40		8807		axe talon	**eclogite**	= = =	74.3	52.8	3.46	=
41	67142	8936		axehead fragment	**eclogite**	presence of jadeite, in addition to omphacite	158.5	114.1	3.57	XRD/SEM-EDS
42		3971		fragment?	**fels w/garnet and biotite**	significant amounts of garnet	64.8	45.9	3.43	=
43		9273		fragment?	**fels w/garnet and biotite**	significant amounts of garnet	44.7	31.8	3.47	=
44		1960		???	**fels w/garnet and biotite**	NO *greenstone*	384.3	272.4	3.43	=
45		3572		???	**fels w/garnet and biotite**	NO *greenstone*	273.8	191	3.31	=
46	67138	4148		axehead	**(jadeitite with albite?)**	apparently marked by darker streaks	97.2	66.4	3.16	=
47		81	CMIX	axe talon	**jadeitite**	= = =	269.3	184.7	3.18	XRD/SEM-EDS
48		3788		axe fragment	**jadeitite**	= = =	44.4	31.1	3.34	XRD/SEM-EDS
49		7646		axe fragment	**jadeitite**	= = =	9.4	6.7	3.48	=
50		4200		small grindstone?	**marble**	calcite	849.2	523.1	2.60	=
51		6373		axe fragment	**mixed Na-pyroxenite**	= = =	14.2	9.9	3.30	=
52	67156	8	Museo CMIX	axe fragment	**mixed Na-pyroxenite**	= = =	149.8	102.8	3.19	=
53	67147	214	CMIX	small chisel fragment	**mixed Na-pyroxenite**	presence of vein with pyroxene (jadeite) and rutile	15	10.6	3.41	=
54		579	CMIX	axe fragment	**mixed Na-pyroxenite**	presence of zoisite	18.5	12.7	3.19	=
55		631	CMIX	axehead	**mixed Na-pyroxenite**	= = =	88.6	62.5	3.39	=
56		987		axe fragment	**mixed Na-pyroxenite**	jadeite more abundant than omphacite	7.7	5.3	3.21	=
57		1548		splinter	**mixed Na-pyroxenite**	= = =	8	5.7	3.48	XRD
58	67149	2413		chisel	**mixed Na-pyroxenite**	= = =	62.8	44.4	3.41	=
59		2809		small chisel fragment	**mixed Na-pyroxenite**	presence of light green levels (jadeite), rich in sulfides	33.1	22.9	3.25	=
60	67143	3208		small axehead	**mixed Na-pyroxenite**	= = =	82.1	57.6	3.35	=
61		3263		chisel fragment	**mixed Na-pyroxenite**	= = =	88.8	62.6	3.39	=
62		3491		axe fragment	**mixed Na-pyroxenite**	= = =	18.1	12.7	3.35	=
63		3525		axe fragment	**mixed Na-pyroxenite**	= = =	25.1	17.5	3.30	=
64		3664	CMX	splinter	**mixed Na-pyroxenite**	too small to provide a reliable weighing	=	=	=	=

65		3891	CMX	splinter	**mixed Na-pyroxenite**	jadeite more abundant than omphacite (too small for weighing)	=	=	=	=
66		3974		axehead	**mixed Na-pyroxenite**	presence of dark minerals (pyroxene?)	37.9	26.9	3.45	=
67		4192		axehead	**mixed Na-pyroxenite**	possible presence of quartz	36.7	25.5	3.28	=
68		4229		axehead	**mixed Na-pyroxenite**	presence of white crystals	88.7	61.6	3.27	=
69	67146	4591		small axehead	**mixed Na-pyroxenite**	= = =	53.2	37.7	3.43	=
70	67159	5101	Museum	axehead	**mixed Na-pyroxenite**	= = =	48.2	33.8	3.35	=
71		5163		axe fragment	**mixed Na-pyroxenite**	presence of ilmenite	18	12.6	3.33	=
72		5410		axe fragment	**mixed Na-pyroxenite**	presence of chloritoid	63.1	44.4	3.37	=
73		6801		axe talon	**mixed Na-pyroxenite**	= = =	42	28.8	3.18	=
74		7179		axe fragment	**mixed Na-pyroxenite**	equivalent amounts of jadeite and omphacite	37.1	26	3.34	XRD/SEM-EDS
75	67158	7777	Museum	axehead	**mixed Na-pyroxenite**	= = =	69.8	49.5	3.44	=
76	67152	8213		axe fragment	**mixed Na-pyroxenite**	possible presence of rutile	44.7	31.4	3.36	=
77	67144	8771		axe fragment	**mixed Na-pyroxenite**	possible presence of epidote	46.3	32.6	3.38	=
78		9342		axe fragment	**mixed Na-pyroxenite**	aggregates of darker pyroxenes (aegirine?)	52.3	36.8	3.37	=
79		9373		axe fragment	**mixed Na-pyroxenite**	presence of sulfides	31.5	22.4	3.46	=
80	67155		Museum	axehead	**mixed Na-pyroxenite**	= = =	108.2	76	3.36	=
81		6636		axe talon	**mixed Na-pyroxenite**	= = =	110	77.5	3.38	XRD/SEM-EDS
82	67141	5018		small axehead	**mixed Na-pyroxen./eclogite**	= = =	42.2	29.9	3.43	=
83		3688		splinter	**mixed Na-pyroxen./eclogite**	jadeite prevailing over omphacite; possible garnets	5.9	4.1	3.28	=
84	67148	3525		small axehead	**omphacitite**	= = =	35	24.5	3.33	=
85		4360		axe fragment	**omphacitite**	= = =	55.5	39	3.36	XRD/SEM-EDS
86		6602		splinter	**omphacitite**	too small to provide a reliable weighing	=	=	=	XRD
87		6830		axe cutting edge	**omphacitite**	= = =	43.1	30.3	3.37	XRD
88		3975		axe talon	**garnet omphacitite**	= = =	46.3	32.4	3.33	XRD/SEM-EDS
89		5319		fragment?	**garnet omphacitite**	= = =	51.5	35.9	3.30	XRD/SEM-EDS
90		7736		axe fragment	**garnet omphacitite**	= = =	71.6	51	3.48	XRD/SEM-EDS
91		Mus. Artillery		two-edged axehead	**porphyry**	quartz-porphyry, with rounded quartz crystals; reef rock	442.5	281.8	2.75	=
92		3926	CMX	small striker	**prasinite**	= = =	5.3	3.5	2.94	=
93		6996		axe talon	**prasinite**	= = =	18.3	12.2	3.00	=
94		7188		axe talon	**prasinite**	= = =	117.4	77.4	2.94	=
95		6443		axe roughout	**(prasinite?)**	= = =	126.6	85.6	3.09	=
96		3852		mall grindstone?	**quartzite**	= = =	=	=	=	=
97		4239		mall grindstone?	**quartzite**	presence of carbonates and white mica	552	340.5	2.61	=
98		5747		axe fragment	**rock w/garnet, plag., pyr., chl.**	= = =	26	18	3.25	XRD

99		7645		axe fragment	**rock w/omph., grt, chl., amph.**	microstructure of an apparent diabase	57.8	39.8	3.21	XRD
100		19	CM	small axe roughout	**serpentinite**	= = =	24.9	15.3	2.59	=
101		341	CMIX	axe roughout	**serpentinite**	= = =	47.1	29.3	2.65	=
102		588		splinter	**serpentinite**	too small to provide a reliable weighing	=	=	=	=
103		1758		small striker	**serpentinite**	= = =	12.1	6.8	2.28	=
104		1828		small pebble (glued)	**serpentinite**	= = =	5	2.4	1.92	=
105		1922		fragment?	**serpentinite**	= = =	10.7	6.8	2.74	=
106		3087		pebble?	**serpentinite**	= = =	21.4	13.4	2.68	=
107		3183		small axe roughout	**serpentinite**	= = =	22.3	13.5	2.53	=
108		3228		pebble	**serpentinite**	= = =	95.8	60	2.68	=
109		3295		small axehead	**serpentinite**	= = =	17.2	10.9	2.73	=
110		3320		axe fragment	**serpentinite**	= = =	7.4	4.6	2.64	=
111		3381		pebble	**serpentinite**	= = =	18.8	11.1	2.44	=
112	67140	3600		axehead	**serpentinite**	= = =	299	186.7	2.66	=
113		3619		splinter	**serpentinite**	too small to provide a reliable weighing	=	=	=	=
114		3666		small splinter fragment	**serpentinite**	serpentine schist	9.4	5.8	2.61	=
115		3763		splinter	**serpentinite**	too small to provide a reliable weighing	=	=	=	=
116		3925		small striker	**serpentinite**	= = =	33.6	19.6	2.40	=
117		3941		splinter	**serpentinite**	too small to provide a reliable weighing	=	=	=	=
118		4022		small striker	**serpentinite**	= = =	9.3	5.3	2.33	=
119	67160	4489	Museum	taw	**serpentinite**	= = =	26.9	15.8	2.42	=
120		4600		small chisel fragment	**serpentinite**	serpentine schist	10.5	6.5	2.63	=
121		5030		taw	**serpentinite**	= = =	18.6	11.2	2.51	=
122	67161	5117	Museum	taw	**serpentinite**	= = =	34.8	21.6	2.64	=
123		5515		small chisel	**serpentinite**	fibrous antigorite	8.8	5.3	2.51	XRD
124		5595		small striker	**serpentinite**	= = =	32.2	19	2.44	=
125		5624		small chisel fragment	**serpentinite**	= = =	20	12.3	2.60	=
126		6174		pebble	**serpentinite**	= = =	16	8.9	2.25	=
127		6232		talon axe	**serpentinite**	= = =	92.4	57.7	2.66	=
128		6389		pebble?	**serpentinite**	= = =	13.7	8.5	2.63	=
129		7217		???	**serpentinite**	= = =	8.8	5.2	2.44	=
130		7321		axe fragment	**serpentinite**	= = =	45.9	28.6	2.65	=
131	67153	7648		axe fragment	**serpentinite**	= = =	53.7	32.6	2.55	=
132		2455		splinter	**(serpentinite?)**	too small to provide a reliable weighing	=	=	=	=

Table S1. Inventory codes, label, typology, preliminary lithotype determination and density values of the 132 polished stone implements and artefacts coming from the archaeological site of Chiomonte, based on density measurements and stereo-microscopy observations in reflected light of the tools polished or raw surfaces; the subsequent, more in-depth analytical treatments are also indicated. The background colour in the 'Implement function' column indicates the typology of the artefact, according to the following codes: i) Instruments for cutting, YELLOW (axes) and ORANGE (chisels and hatchets); ii) Instruments for striking, RED (strikers); iii) Instruments with ornamental purposes, GREEN (pendants and taws); iv) Instruments for abrading, PURPLE (millstones and grindstones); v) BLUE, Fragments, roughouts, splinters and pebbles; vi) WHITE, unidentified.

ARCHAEOLOGICAL IMPLEMENTS

Selected spot chemical analyses of clinopyroxenes and garnets by EDS **(detection threshold for oxides: 0.05 %; the symbol "=" indicates "under the detection limit")**.

Na-PYROXENE ROCKS

Jadeitites

Sample (thin section): **3788**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	58.55	57.76	57.60	57.65	56.39	56.00	58.90	58.30	58.09	57.61
TiO_2	=	=	0.79	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	20.48	18.93	19.00	17.64	12.90	13.27	20.42	20.28	19.21	16.75
Fe_2O_3	1.10	2.89	2.79	2.19	5.44	7.35	0.12	=	3.04	4.25
FeO	4.00	3.36	3.19	6.01	4.60	2.07	4.91	5.07	3.85	4.94
MnO	=	=	=	=	=	=	=	=	=	=
MgO	0.78	1.20	1.17	1.06	3.41	3.93	0.79	0.73	0.92	1.20
NiO	=	=	=	=	=	=	=	=	=	=
CaO	1.98	2.82	2.06	3.38	6.87	6.71	1.98	2.02	2.12	2.68
Na_2O	13.39	12.93	13.3	12.23	10.34	10.63	13.28	13.07	13.21	12.59
K_2O	=	=	=	=	=	=	=	=	=	=
Total	100.28	99.89	99.90	100.16	99.96	99.97	100.4	99.47	100.44	100.02
Cations (based on 6 oxygens)										
Si	2.017	2.010	2.002	2.022	2.013	1.99	2.027	2.027	2.0118	2.026
Ti	0	0	0.021	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.832	0.777	0.778	0.729	0.543	0.556	0.828	0.831	0.784	0.694
Fe^{3+}	0.029	0.076	0.073	0.058	0.146	0.197	0.003	0	0.079	0.1124
Fe^{2+}	0.115	0.098	0.093	0.176	0.138	0.062	0.141	0.147	0.112	0.145
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.040	0.062	0.061	0.055	0.182	0.208	0.041	0.038	0.048	0.063
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.073	0.105	0.077	0.127	0.263	0.256	0.073	0.075	0.079	0.101
Na	0.894	0.873	0.896	0.832	0.716	0.732	0.886	0.881	0.887	0.858
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.037	0.053	0.038	0.064	0.131	0.123	0.037	0.038	0.039	0.05
Enstatite	0.02	0.031	0.03	0.028	0.091	0.104	0.02	0.019	0.024	0.031
Ferrosilite	0.058	0.049	0.046	0.088	0.069	0.031	0.071	0.074	0.056	0.073
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.029	0.076	0.073	0.058	0.146	0.197	0.003	0	0.079	0.112
Jadeite	0.832	0.776	0.778	0.729	0.543	0.536	0.828	0.831	0.784	0.694
$CaAl_2SiO_6$	=	=	=	=	=	0.01	=	=	=	=
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S2

Sample (thin section): (**CMIX**) **81**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	59.27	56.25	60.14	58.59	59.51	59.23	59.26	58.9	57.45	56.6
TiO_2	=	=	=	=	=	0.33	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	22.99	8.41	24.13	19.33	23.63	22.45	21.12	20.51	13.12	12.16
Fe_2O_3	=	6.22	=	=	=	=	=	=	=	0.54
FeO	1.47	5.14	=	1.20	0.62	0.47	1.08	0.90	2.28	3.65
MnO	=	=	=	=	=	=	=	=	=	=
MgO	0.56	5.59	0.96	3.65	0.97	1.66	2.45	2.87	7.37	7.00
NiO	=	=	=	=	=	=	=	=	=	=
CaO	0.99	8.86	1.45	5.65	0.97	2.35	4.01	4.63	11.33	11.43
Na_2O	13.85	8.80	13.61	11.22	13.82	13.00	12.30	12.20	8.30	7.96
K_2O	=	=	=	=	=	=	=	=	=	=
Total	99.13	99.27	100.29	99.64	99.52	99.49	100.22	100.01	99.85	99.34
Cations (based on 6 oxygens)										
Si	2.038	2.045	2.040	2.027	2.032	2.033	2.0290	2.019	2.015	2.012
Ti	0	0	0	0	0	0.009	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.932	0.360	0.964	0.788	0.951	0.908	0.852	0.828	0.542	0.510
Fe^{3+}	0	0.170	0	0	0	0	0	0	0	0.015
Fe^{2+}	0.042	0.156	0	0.035	0.018	0.014	0.031	0.026	0.067	0.109
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.029	0.303	0.049	0.188	0.049	0.085	0.125	0.147	0.385	0.371
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.037	0.345	0.053	0.210	0.036	0.086	0.147	0.170	0.426	0.435
Na	0.923	0.620	0.895	0.753	0.915	0.865	0.816	0.811	0.565	0.549
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.018	0.173	0.026	0.105	0.018	0.043	0.074	0.085	0.213	0.218
Enstatite	0.014	0.151	0.024	0.094	0.025	0.042	0.063	0.073	0.193	0.185
Ferrosilite	0.021	0.078	0	0.017	0.009	0.007	0.015	0.013	0.033	0.054
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	=	0.17	=	=	=	=	=	=	=	0.015
Jadeite	0.923	0.36	0.895	0.753	0.915	0.865	0.816	0.811	0.542	0.51
$CaAl_2SiO_6$	=	=	=	=	=	=	=	=	=	=
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S3

Omphacitite

Sample (thin section): **4360**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	53.50	54.34	54.09	54.40	54.26	53.30	55.03	54.69	54.71	54.65
TiO_2	=	=	=	=	=	=	=	=	=	0.34
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	7.71	10.66	7.59	10.5	10.91	8.80	11.04	10.06	11.56	11.79
Fe_2O_3	13.28	10.10	5.80	7.10	7.52	8.82	7.52	6.86	6.65	8.12
FeO	=	=	=	3.92	2.33	4.12	=	0.03	0.15	0.50
MnO	=	=	=	=	=	=	=	=	=	=
MgO	5.54	5.16	9.88	4.24	4.83	4.62	6.47	7.43	6.27	5.09
NiO	=	=	=	=	=	=	=	=	=	=
CaO	8.91	8.14	15.25	9.42	9.42	10.93	9.79	11.3	9.87	8.56
Na_2O	9.28	9.79	6.07	8.95	9.03	8.06	9.24	8.12	8.94	9.73
K_2O	=	=	=	=	=	=	=	=	=	=
Total	98.22	98.19	98.68	98.53	98.3	98.65	99.09	98.49	98.15	98.78
Cations (based on 6 oxygens)										
Si	1.975	1.978	1.963	1.993	1.982	1.974	1.970	1.977	1.977	1.970
Ti	0	0	0	0	0	0	0	0	0	0.009
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.335	0.457	0.325	0.454	0.470	0.384	0.4660	0.429	0.492	0.501
Fe^{3+}	0.369	0.277	0.158	0.196	0.207	0.246	0.203	0.187	0.181	0.220
Fe^{2+}	0	0	0	0.120	0.071	0.128	0	0.001	0.004	0.015
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.305	0.280	0.534	0.232	0.263	0.255	0.345	0.400	0.338	0.274
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.352	0.317	0.593	0.370	0.369	0.434	0.375	0.438	0.382	0.331
Na	0.664	0.691	0.427	0.636	0.639	0.579	0.641	0.569	0.626	0.680
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.169	0.148	0.287	0.182	0.175	0.204	0.188	0.207	0.179	0.155
Enstatite	0.152	0.14	0.267	0.116	0.131	0.128	0.173	0.2	0.169	0.137
Ferrosilite	=	=	=	0.06	0.036	0.064	=	=	0.002	0.008
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.369	0.277	0.158	0.196	0.207	0.246	0.203	0.187	0.181	0.22
Jadeite	0.295	0.414	0.269	0.44	0.433	0.333	0.435	0.382	0.445	0.46
$CaAl_2SiO_6$	0.015	0.021	0.019	0.007	0.018	0.026	=	0.023	0.023	0.011
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	0.009

Table S4

Mixed Na-pyroxenites

Sample (thin section): **6636**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	58.50	58.35	58.91	58.78	58.01	56.32	56.60	56.44	56.29	59.08
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	20.34	20.49	22.17	21.23	21.22	13.59	14.53	12.90	13.57	22.67
Fe_2O_3	0.57	=	=	=	1.08	9.13	7.74	3.28	7.82	=
FeO	4.26	4.38	3.56	4.52	3.49	2.56	3.93	4.62	3.93	3.19
MnO	=	=	=	=	=	=	=	=	=	=
MgO	0.82	0.81	0.47	0.50	0.62	2.29	1.94	4.63	2.54	0.52
NiO	=	=	=	=	=	=	=	=	=	=
CaO	1.93	2.16	1.48	1.25	1.44	4.35	3.92	9.01	4.53	1.18
Na_2O	13.32	13.16	13.63	13.61	13.57	11.89	11.92	9.29	11.44	13.84
K_2O	=	=	=	=	=	=	=	=	=	=
Total	99.74	99.35	100.22	99.89	99.44	100.12	100.58	100.17	100.12	100.48
Cations (based on 6 oxygens)										
Si	2.025	2.026	2.019	2.026	2.008	2.003	2.003	2.006	2.005	2.014
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.830	0.839	0.895	0.862	0.866	0.570	0.606	0.540	0.570	0.911
Fe^{3+}	0.015	0	0	0	0.028	0.244	0.206	0.088	0.210	0
Fe^{2+}	0.123	0.127	0.102	0.130	0.101	0.076	0.116	0.137	0.117	0.091
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.042	0.0420	0.024	0.026	0.032	0.121	0.102	0.245	0.135	0.026
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.072	0.080	0.054	0.046	0.053	0.166	0.149	0.343	0.173	0.043
Na	0.894	0.89	0.906	0.910	0.911	0.820	0.818	0.640	0.790	0.915
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.036	0.04	0.027	0.023	0.027	0.083	0.074	0.172	0.086	0.022
Enstatite	0.021	0.021	0.012	0.013	0.016	0.061	0.051	0.123	0.067	0.013
Ferrosilite	0.062	0.064	0.051	0.065	0.051	0.038	0.058	0.069	0.059	0.045
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.015	=	=	=	0.028	0.244	0.206	0.088	0.21	=
Jadeite	0.83	0.839	0.895	0.862	0.866	0.57	0.606	0.54	0.57	0.911
$CaAl_2SiO_6$	=	=	=	=	=	=	=	=	=	=
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S5

Sample (thin section): **7179**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	56.40	57.91	57.68	57.12	57.58	56.62	58.20	57.46	57.72	57.17
TiO_2	0.11	0.20	0.11	=	=	0.07	0.20	=	0.17	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	19.84	22.19	21.57	22.57	20.16	17.07	22.64	23.31	16.82	19.09
Fe_2O_3	5.03	3.14	2.60	3.18	5.02	5.86	1.83	2.38	5.87	5.26
FeO	=	=	0.08	=	=	=	0.63	=	=	0.13
MnO	=	=	=	=	=	=	=	=	=	=
MgO	1.29	0.37	1.52	0.30	1.09	2.57	0.38	0.01	2.60	1.57
NiO	=	=	=	=	=	=	=	=	=	=
CaO	2.26	1.29	2.66	1.05	2.13	4.61	1.11	0.52	4.39	2.82
Na_2O	14.70	15.25	13.96	14.36	14.26	13.07	14.46	14.81	13.18	13.75
K_2O	=	=	=	=	=	=	=	0.13	=	=
Total	99.68	100.35	100.18	98.63	100.25	99.86	99.44	98.63	100.74	99.80
Cations (based on 6 oxygens)										
Si	1.963	1.979	1.974	1.978	1.983	1.980	1.994	1.983	1.997	1.985
Ti	0.003	0.005	0.003	0.001	0	0.002	0.005	0	0.004	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.814	0.894	0.870	0.921	0.818	0.704	0.914	0.948	0.686	0.781
Fe^{3+}	0.132	0.081	0.067	0.083	0.130	0.154	0.047	0.062	0.153	0.138
Fe^{2+}	0.001	0	0.002	0.001	0	0	0.018	0	0	0.004
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.067	0.019	0.077	0.016	0.056	0.134	0.020	0.001	0.134	0.081
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.084	0.047	0.098	0.039	0.079	0.173	0.041	0.019	0.163	0.105
Na	0.992	1.010	0.927	0.964	0.952	0.886	0.961	0.991	0.884	0.926
K	0	0	0	0	0	0	0	0.006	0	0
End-members										
Wollastonite	0.039	0.021	0.047	0.010	0.039	0.085	0.019	0.010	0.079	0.052
Enstatite	0.032	0.009	0.036	0.007	0.028	0.066	0.010	0	0.067	0.037
Ferrosilite	=	=	=	=	=	=	0.009	=	=	=
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.130	0.08	0.067	0.083	0.130	0.153	0.047	0.062	0.152	0.137
Jadeite	0.739	0.848	0.834	0.881	0.789	0.662	0.909	0.924	0.668	0.755
$CaAl_2SiO_6$	=	=	=	0.018	=	=	=	=	=	=
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	0.003	0.005	0.003	0.001	=	0.002	0.003	=	0.004	=

Table S6

Na-PYROXENE + GARNET ROCKS

Eclogites

Sample (thin section): **3088**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	56.87	56.18	56.89	57.65	56.24	57.46	58.52	56.83	56.04	54.09
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	13.02	12.69	14.79	17.68	12.84	18.56	19.86	17	14.83	9.73
Fe_2O_3	4.28	5.5	4.93	2.89	5.95	2.67	0.77	2.66	5.19	10.15
FeO	3.89	3.12	2.39	3.64	2.82	3.57	4.23	4.02	3.57	2.27
MnO	=	=	=	=	=	=	=	=	=	=
MgO	4.92	4.83	4.09	2.12	4.83	1.4	1.26	2.29	3.35	4.77
NiO	=	=	=	=	=	=	=	=	=	=
CaO	7.66	8.14	6.56	4.19	7.78	3	2.66	4.81	5.37	9.5
Na_2O	9.82	9.71	10.77	12.11	9.89	12.68	12.96	11.58	10.91	9
K_2O	=	=	=	=	=	=	=	=	=	=
Total	100.46	100.17	100.42	100.28	100.35	99.35	100.26	99.19	99.26	99.52
Cations (based on 6 oxygens)										
Si	2.008	1.995	1.996	2.008	1.992	2.012	2.020	2.007	1.996	1.970
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.542	0.531	0.611	0.726	0.536	0.766	0.808	0.708	0.623	0.418
Fe^{3+}	0.114	0.147	0.130	0.076	0.159	0.070	0.020	0.071	0.139	0.278
Fe^{2+}	0.115	0.093	0.070	0.106	0.083	0.105	0.122	0.119	0.106	0.069
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.259	0.256	0.214	0.110	0.255	0.073	0.065	0.121	0.178	0.259
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.290	0.310	0.247	0.156	0.295	0.113	0.098	0.182	0.205	0.371
Na	0.672	0.669	0.732	0.818	0.679	0.861	0.867	0.793	0.753	0.636
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.145	0.152	0.121	0.078	0.144	0.056	0.049	0.091	0.100	0.170
Enstatite	0.129	0.128	0.107	0.055	0.128	0.037	0.032	0.06	0.089	0.129
Ferrosilite	0.057	0.046	0.035	0.053	0.042	0.052	0.061	0.059	0.053	0.035
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.114	0.147	0.13	0.076	0.159	0.07	0.02	0.071	0.139	0.278
Jadeite	0.542	0.521	0.602	0.726	0.521	0.766	0.808	0.708	0.614	0.357
$CaAl_2SiO_6$	=	0.005	0.005	=	0.008	=	=	=	0.004	0.030
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S7

Sample (thin section): **3088**

Garnets										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	37.18	37.47	37.51	37.84	37.59	37.72	37.17	37.28	38.2	38.09
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	21.08	21.21	21.04	21.54	21.21	21.3	20.71	21	21.18	21.25
Fe_2O_3	3.14	1.65	2.67	1.85	2.21	1.94	2.8	3.57	2.21	0.66
FeO	28.06	30.16	29.89	28.98	29.60	29.28	28.88	29.72	30.95	30.2
MnO	1.49	0.81	1.07	1.17	1.06	1.61	1.21	1.2	0.97	1.2
MgO	5.08	5.24	5.53	6.18	4.92	4.71	5.13	4.82	5.09	5.62
NiO	=	=	=	=	=	=	=	=	=	=
CaO	4.56	3.51	3.15	3.18	4.29	4.53	4.06	3.94	3.65	3.21
Na_2O	=	=	=	=	=	=	=	=	=	=
K_2O	=	=	=	=	=	=	=	=	=	=
Total	100.59	100.05	100.85	100.73	100.88	101.08	99.96	101.54	102.25	100.24
Cations (based on 12 oxygens)										
Si	2.929	2.963	2.947	2.954	2.953	2.958	2.948	2.924	2.966	2.996
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	1.957	1.976	1.948	1.982	1.964	1.969	1.936	1.942	1.938	1.970
Fe^{3+}	0.186	0.098	0.158	0.109	0.131	0.114	0.167	0.211	0.129	0.039
Fe^{2+}	1.848	1.994	1.963	1.892	1.945	1.920	1.916	1.950	2.010	1.986
Mn	0.099	0.054	0.071	0.077	0.071	0.107	0.081	0.080	0.064	0.080
Mg	0.596	0.617	0.647	0.719	0.576	0.551	0.607	0.564	0.589	0.659
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.385	0.297	0.265	0.266	0.361	0.381	0.345	0.331	0.304	0.271
Na	0	0	0	0	0	0	0	0	0	0
K	0	0	0	0	0	0	0	0	0	0
End-members										
Grossular	0.036	0.051	0.01	0.035	0.056	0.071	0.032	0.005	0.037	0.071
Almandine	0.631	0.673	0.666	0.64	0.659	0.649	0.65	0.667	0.678	0.663
Pyrope	0.204	0.208	0.22	0.243	0.195	0.186	0.206	0.193	0.199	0.22
Spessartine	0.034	0.018	0.024	0.026	0.024	0.036	0.028	0.027	0.022	0.027
Andradite	0.095	0.05	0.08	0.055	0.066	0.058	0.085	0.108	0.065	0.02
Uvarovite	=	=	=	=	=	=	=	=	=	=
Ti-Al Garnet	=	=	=	=	=	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=	=	=	=	=	=
Grossular	0.036	0.051	0.01	0.035	0.056	0.071	0.032	0.005	0.037	0.071
Almandine	0.631	0.673	0.666	0.64	0.659	0.649	0.65	0.667	0.678	0.663

Table S8

Sample (thin section): **5653**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	56.44	53.70	55.88	56.12	55.68	55.99	55.35	56.16	54.70	55.23
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	10.57	9.81	10.01	9.63	8.72	9.79	10.30	9.93	10.93	11.03
Fe_2O_3	7.27	5.5	5.56	4.37	4.31	5.78	5.89	6.69	2.45	3.42
FeO	0.94	6.37	1.90	2.86	2.85	2.29	2.06	1.73	7.98	7.12
MnO	=	=	=	=	=	=	=	=	=	=
MgO	6.7	4.48	7.25	7.33	8.24	6.91	6.63	6.76	4.54	4.36
NiO	=	=	=	=	=	=	=	=	=	=
CaO	10.52	11.16	11.87	12.16	13.08	11.65	10.72	11.21	11.69	11.83
Na_2O	8.87	7.67	7.93	7.68	6.96	8.07	8.32	8.41	7.41	7.77
K_2O	=	=	=	=	=	=	=	=	=	=
Total	101.31	98.68	100.40	100.15	99.85	100.48	99.26	100.89	99.70	100.75
Cations (based on 6 oxygens)										
Si	1.987	1.985	1.989	2.004	2.000	1.996	1.992	1.993	1.993	1.991
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.439	0.427	0.420	0.405	0.369	0.411	0.437	0.415	0.469	0.468
Fe^{3+}	0.193	0.153	0.149	0.118	0.117	0.155	0.1600	0.178	0.067	0.093
Fe^{2+}	0.028	0.197	0.057	0.085	0.086	0.068	0.062	0.051	0.243	0.215
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.352	0.247	0.385	0.390	0.441	0.367	0.356	0.357	0.247	0.234
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.397	0.442	0.453	0.465	0.503	0.445	0.413	0.426	0.457	0.457
Na	0.606	0.541	0.548	0.532	0.485	0.558	0.581	0.579	0.524	0.543
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.192	0.213	0.221	0.233	0.252	0.22	0.203	0.209	0.225	0.224
Enstatite	0.176	0.123	0.192	0.195	0.221	0.183	0.178	0.179	0.123	0.117
Ferrosilite	0.014	0.098	0.028	0.043	0.043	0.034	0.031	0.026	0.122	0.107
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.193	0.153	0.149	0.118	0.116	0.155	0.159	0.178	0.067	0.093
Jadeite	0.413	0.397	0.399	0.405	0.368	0.402	0.421	0.4	0.456	0.45
$CaAl_2SiO_6$	0.013	0.015	0.011	=	=	0.004	0.008	0.007	0.007	0.009
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S9

Sample (thin section): **5653**

Garnets								
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
SiO_2	36.77	36.65	36.5	36.56	36.63	36.06	36.41	36.1
TiO_2	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=
Al_2O_3	20.33	20.52	20.09	20.51	20.53	19.96	20.04	20.43
Fe_2O_3	2.46	2.43	2.48	2.02	1.88	1.55	2.37	3.58
FeO	27.66	26.58	27.88	29.55	28.27	27.83	27.68	24.48
MnO	2.29	1.49	2.27	1.94	1.99	2.1	1.3	0.78
MgO	3.26	3.71	2.63	4.34	4.08	3.99	4.58	4.99
NiO	=	=	=	=	=	=	=	=
CaO	6.38	7.12	6.85	3.49	4.87	4.72	4.98	7.03
Na_2O	=	=	=	=	=	=	=	=
K_2O	=	=	=	=	=	=	=	=
Total	99.16	98.50	98.7	98.4	98.26	96.22	97.36	97.39
Cations (based on 12 oxygens)								
Si	2.961	2.952	2.963	2.960	2.964	2.980	2.966	2.918
Ti	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0
Al	1.929	1.948	1.922	1.957	1.958	1.944	1.924	1.946
Fe^{3+}	0.149	0.147	0.151	0.123	0.115	0.097	0.145	0.218
Fe^{2+}	1.863	1.791	1.893	2.001	1.913	1.924	1.885	1.655
Mn	0.156	0.102	0.156	0.133	0.136	0.147	0.090	0.053
Mg	0.391	0.445	0.318	0.524	0.492	0.491	0.556	0.601
Ni	0	0	0	0	0	0	0	0
Ca	0.550	0.615	0.596	0.303	0.422	0.418	0.435	0.609
Na	0	0	0	0	0	0	0	0
K	0	0	0	0	0	0	0	0
End-members								
Grossular	0.11	0.133	0.125	0.04	0.084	0.092	0.073	0.097
Almandine	0.629	0.607	0.639	0.676	0.646	0.646	0.636	0.567
Pyrope	0.132	0.151	0.107	0.177	0.166	0.165	0.187	0.206
Spessartine	0.053	0.034	0.053	0.045	0.046	0.049	0.03	0.018
Andradite	0.076	0.075	0.077	0.062	0.058	0.049	0.073	0.112
Uvarovite	=	=	=	=	=	=	=	=
Ti-Al Garnet	=	=	=	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=	=	=	=
Grossular	0.11	0.133	0.125	0.04	0.084	0.092	0.073	0.097
Almandine	0.629	0.607	0.639	0.676	0.646	0.646	0.636	0.567

Table S10

Sample (thin section): **7144**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	55.58	55.15	59.4	58.62	56.01	58.35	58.43	54.91	55.45	56.59
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	11.86	11.31	22.24	21.13	13.77	21.87	22.73	10.94	10.62	13.19
Fe_2O_3	5.87	7.46	=	0.89	7.74	=	=	5.58	5.76	4.11
FeO	4	3.08	2.47	3.4	2.84	2.79	2.04	5.23	4.08	4.68
MnO	=	=	=	=	=	=	=	=	=	=
MgO	4.35	4.59	1.01	1.02	2.97	0.84	0.62	4.05	5.75	4.03
NiO	=	=	=	=	=	=	=	=	=	=
CaO	7.96	7.76	2.48	2.32	4.96	1.96	1.44	9.97	9.05	6.57
Na_2O	9.6	9.65	13.41	13.35	11.32	13.53	13.76	8.72	8.71	10.22
K_2O	=	=	=	=	=	=	=	=	=	=
Total	99.22	99.00	101.01	100.73	99.61	99.34	99.02	99.41	99.42	99.39
Cations (based on 6 oxygens)										
Si	2.004	1.996	2.016	2.005	1.998	2.011	2.014	1.997	2.001	2.021
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.504	0.482	0.890	0.852	0.579	0.889	0.923	0.469	0.452	0.555
Fe^{3+}	0.159	0.203	0	0.023	0.208	0	0	0.153	0.156	0.111
Fe^{2+}	0.121	0.093	0.070	0.097	0.085	0.080	0.059	0.159	0.123	0.140
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.234	0.248	0.051	0.052	0.158	0.043	0.032	0.220	0.309	0.215
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.308	0.301	0.090	0.085	0.190	0.072	0.053	0.388	0.350	0.251
Na	0.671	0.677	0.883	0.886	0.783	0.904	0.919	0.615	0.609	0.708
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.154	0.148	0.045	0.043	0.094	0.036	0.027	0.192	0.175	0.126
Enstatite	0.117	0.124	0.026	0.026	0.079	0.022	0.016	0.11	0.155	0.107
Ferrosilite	0.06	0.047	0.035	0.049	0.042	0.04	0.029	0.08	0.061	0.07
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.159	0.203	=	0.023	0.208	=	=	0.153	0.156	0.111
Jadeite	0.504	0.474	0.883	0.852	0.575	0.888	0.919	0.462	0.452	0.555
$CaAl_2SiO_6$	0	0.004	=	=	0.002	=	=	0.003	0	0
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S11

Sample (thin section): **7144**

Garnets										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	36.68	36.8	37.09	37.52	37.27	37.46	37.32	37.66	37.89	37.96
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	20.87	20.69	20.78	20.88	20.63	21.09	20.6	20.79	21.15	21.12
Fe_2O_3	3.34	2.96	2.81	2.18	1.66	3.02	2.08	1.42	1.99	1.96
FeO	29.78	29.16	32.44	32.66	33.58	29.46	29.95	31.99	32.82	32.52
MnO	2.1	2.47	0.93	0.81	1.98	2.06	2.46	2.07	0.73	1.05
MgO	2.3	1.7	3.97	3.95	2.91	2.3	1.99	3.13	3.94	3.47
NiO	=	=	=	=	=	=	=	=	=	=
CaO	6.13	7.27	3.04	3.39	2.96	7.14	6.74	4.19	3.69	4.39
Na_2O	=	=	=	=	=	=	=	=	=	=
K_2O	=	=	=	=	=	=	=	=	=	=
Total	101.21	101.05	101.06	101.39	101.00	102.53	101.14	101.25	102.21	102.47
Cations (based on 12 oxygens)										
Si	2.921	2.938	2.944	2.964	2.978	2.937	2.971	2.986	2.966	2.969
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	1.959	1.947	1.944	1.944	1.943	1.949	1.933	1.943	1.951	1.947
Fe^{3+}	0.200	0.178	0.168	0.129	0.100	0.178	0.124	0.085	0.117	0.115
Fe^{2+}	1.983	1.947	2.153	2.157	2.244	1.931	1.994	2.121	2.148	2.13
Mn	0.142	0.167	0.063	0.054	0.134	0.137	0.166	0.139	0.048	0.070
Mg	0.273	0.202	0.470	0.465	0.347	0.269	0.236	0.370	0.460	0.405
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.523	0.622	0.259	0.287	0.253	0.600	0.575	0.356	0.310	0.368
Na	0	0	0	0	0	0	0	0	0	0
K	0	0	0	0	0	0	0	0	0	0
End-members										
Grossular	0.076	0.121	0.002	0.031	0.035	0.113	0.131	0.077	0.045	0.066
Almandine	0.679	0.663	0.731	0.728	0.754	0.658	0.671	0.71	0.724	0.716
Pyrope	0.093	0.069	0.16	0.157	0.116	0.092	0.079	0.124	0.155	0.136
Spessartine	0.048	0.057	0.021	0.018	0.045	0.047	0.056	0.047	0.016	0.023
Andradite	0.103	0.091	0.086	0.065	0.05	0.091	0.063	0.043	0.059	0.058
Uvarovite	=	=	=	=	=	=	=	=	=	=
Ti-Al Garnet	=	=	=	=	=	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=	=	=	=	=	=
Grossular	0.076	0.121	0.002	0.031	0.035	0.113	0.131	0.077	0.045	0.066
Almandine	0.679	0.663	0.731	0.728	0.754	0.658	0.671	0.71	0.724	0.716

Table S12

Sample (thin section): **67142/8936**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	54.61	54.88	55.66	55.71	55.94	55.42	56.06	55.85	55.96	55.99
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	11.3	10.73	10.37	10.14	10.41	10.15	10.92	11.17	10.41	11.76
Fe_2O_3	6.5	5.86	7.23	5.98	7.62	5.49	7.35	4.29	5.02	4.22
FeO	5.63	3.43	0.68	1.58	2.73	2.23	2.3	5.95	2.34	5.85
MnO	=	=	=	=	=	=	=	=	=	=
MgO	3.75	5.59	6.76	7.36	5.6	7.16	5.44	4.86	7.08	4.4
NiO	=	=	=	=	=	=	=	=	=	=
CaO	8.93	10.4	11.07	11.64	8.99	11.83	9.41	10.86	11.49	10.41
Na_2O	8.96	8.39	8.55	7.98	9.2	7.79	9.27	8.25	8.03	8.61
K_2O	=	=	=	=	=	=	=	=	=	=
Total	99.68	99.29	100.32	100.39	100.49	100.07	100.75	101.23	100.33	101.24
Cations (based on 6 oxygens)										
Si	1.985	1.986	1.981	1.983	1.997	1.982	1.992	1.993	1.992	1.994
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.484	0.458	0.435	0.425	0.438	0.428	0.457	0.470	0.437	0.494
Fe^{3+}	0.178	0.160	0.194	0.160	0.205	0.148	0.197	0.115	0.135	0.113
Fe^{2+}	0.171	0.104	0.020	0.047	0.082	0.067	0.068	0.178	0.070	0.174
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.203	0.302	0.359	0.390	0.298	0.382	0.288	0.259	0.376	0.234
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.348	0.403	0.422	0.444	0.344	0.453	0.358	0.415	0.438	0.397
Na	0.631	0.589	0.590	0.551	0.637	0.540	0.639	0.571	0.554	0.595
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.166	0.194	0.201	0.213	0.17	0.218	0.175	0.204	0.215	0.196
Enstatite	0.102	0.151	0.179	0.195	0.149	0.191	0.144	0.129	0.188	0.117
Ferrosilite	0.086	0.052	0.01	0.024	0.041	0.033	0.034	0.089	0.035	0.087
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.178	0.16	0.194	0.16	0.205	0.148	0.196	0.115	0.134	0.113
Jadeite	0.454	0.429	0.396	0.391	0.432	0.392	0.442	0.456	0.42	0.481
$CaAl_2SiO_6$	0.015	0.014	0.019	0.017	0.003	0.018	0.008	0.007	0.009	0.006
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S13

Sample (thin section): **67142/8936**

Garnets									
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
SiO_2	37.85	37.50	37.64	37.25	37.40	37.33	36.79	37.17	37.24
TiO_2	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=
Al_2O_3	21.08	20.71	21.17	20.98	20.99	20.74	20.75	21.10	21.29
Fe_2O_3	2.63	1.78	2.79	1.98	1.92	1.83	2.24	1.82	3.07
FeO	26.84	28.64	24.71	27.84	30.51	30.81	29.63	29.86	28.28
MnO	0.74	0.66	0.73	0.57	0.93	1.03	3.04	1.85	0.58
MgO	5.07	5.22	5.09	5.36	5.07	4.80	3.15	4.63	5.09
NiO	=	=	=	=	=	=	=	=	=
CaO	6.75	4.86	8.19	5.13	3.31	3.30	4.43	3.48	5.15
Na_2O	=	=	=	=	=	=	=	=	=
K_2O	=	=	=	=	=	=	=	=	=
Total	100.95	99.37	100.32	99.11	100.13	99.84	100.02	99.91	100.69
Cations (based on 12 oxygens)									
Si	2.953	2.978	2.943	2.959	2.963	2.972	2.951	2.957	2.924
Ti	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0
Al	1.939	1.939	1.950	1.964	1.960	1.946	1.962	1.978	1.970
Fe^{3+}	0.154	0.107	0.164	0.119	0.115	0.110	0.136	0.109	0.182
Fe^{2+}	1.751	1.902	1.615	1.849	2.021	2.052	1.988	1.987	1.857
Mn	0.049	0.044	0.048	0.039	0.063	0.069	0.207	0.125	0.039
Mg	0.590	0.617	0.593	0.634	0.598	0.569	0.376	0.549	0.596
Ni	0	0	0	0	0	0	0	0	0
Ca	0.564	0.414	0.686	0.437	0.281	0.282	0.381	0.296	0.433
Na	0	0	0	0	0	0	0	0	0
K	0	0	0	0	0	0	0	0	0
End-members									
Grossular	0.113	0.085	0.15	0.088	0.037	0.039	0.06	0.045	0.055
Almandine	0.593	0.639	0.549	0.625	0.682	0.69	0.674	0.672	0.635
Pyrope	0.2	0.207	0.201	0.214	0.202	0.191	0.127	0.186	0.204
Spessartine	0.016	0.015	0.016	0.013	0.021	0.023	0.07	0.042	0.013
Andradite	0.078	0.054	0.084	0.06	0.058	0.055	0.069	0.055	0.093
Uvarovite	=	=	=	=	=	=	=	=	=
Ti-Al Garnet	=	=	=	=	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=	=	=	=	=
Grossular	0.113	0.085	0.15	0.088	0.037	0.039	0.06	0.045	0.055
Almandine	0.593	0.639	0.549	0.625	0.682	0.69	0.674	0.672	0.635

Table S14

Garnet-omphacitites

Sample (thin section): **3975**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	55.01	54.61	54.32	55.06	55.52	54.78	54.87	54.84	53.94	53.99
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	0.51	0.41	=	=	0.46	=	=	1.63	=
Al_2O_3	8.52	7.46	8.5	10.44	10.61	10.1	10.43	10.25	6.95	7.29
Fe_2O_3	5.26	4.48	6.2	2.57	4.12	4.99	4.58	3.92	4.93	5.31
FeO	0.85	2.65	0.66	2.83	0.68	0.87	1.34	1.94	1.83	1.16
MnO	=	=	=	=	=	=	=	=	=	=
MgO	8.84	8.97	9.01	7.85	8.07	7.71	7.47	7.61	9.08	9.56
NiO	=	=	=	=	=	=	=	=	=	=
CaO	13.66	14.49	14.09	12.38	12.95	12.65	12.38	12.41	14.68	15.41
Na_2O	6.83	6.06	6.51	7.15	7.49	7.48	7.57	7.37	5.97	5.74
K_2O	=	=	=	=	=	=	=	=	=	=
Total	98.98	99.23	99.70	98.29	99.44	99.04	98.64	98.34	99.00	98.46
Cations (based on 6 oxygens)										
Si	1.986	1.985	1.96	1.993	1.981	1.973	1.981	1.987	1.971	1.973
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0.015	0.012	0	0	0.013	0	0	0.047	0
Al	0.363	0.320	0.361	0.445	0.446	0.429	0.444	0.438	0.299	0.314
Fe^{3+}	0.143	0.123	0.168	0.070	0.111	0.135	0.125	0.107	0.135	0.146
Fe^{2+}	0.026	0.081	0.020	0.086	0.020	0.026	0.040	0.059	0.056	0.036
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.476	0.486	0.484	0.424	0.429	0.414	0.402	0.411	0.494	0.521
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.529	0.5644	0.544	0.480	0.495	0.488	0.479	0.482	0.575	0.604
Na	0.478	0.427	0.455	0.502	0.518	0.522	0.530	0.518	0.423	0.407
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.257	0.275	0.25	0.237	0.238	0.230	0.23	0.234	0.273	0.288
Enstatite	0.238	0.243	0.242	0.212	0.215	0.207	0.201	0.205	0.247	0.260
Ferrosilite	0.013	0.04	0.01	0.043	0.01	0.013	0.02	0.029	0.028	0.018
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.143	0.123	0.168	0.07	0.111	0.135	0.125	0.107	0.135	0.146
Jadeite	0.335	0.305	0.287	0.432	0.408	0.387	0.405	0.411	0.270	0.261
$CaAl_2SiO_6$	0.014	=	0.031	0.007	0.019	0.014	0.019	0.013	=	0.027
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	0.015	0.012	=	=	0.013	=	=	0.029	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S15

Sample (thin section): **3975**

Garnets					
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**
SiO_2	37.03	36.59	36.99	37.41	37.4
TiO_2	=	=	=	=	=
Cr_2O_3	=	0.46	=	0.49	=
Al_2O_3	20.65	20.54	20.75	20.8	21.3
Fe_2O_3	0.47	0.96	0.5	0.88	1.77
FeO	31.09	30.6	30.37	29.23	26.16
MnO	0.56	0.52	0.58	1.09	2.96
MgO	2.79	2.36	2.71	3.51	4.19
NiO	=	=	=	=	=
CaO	5.97	6.57	6.59	6.36	6.32
Na_2O	=	=	=	=	=
K_2O	=	=	=	=	=
Total	98.56	98.61	98.49	99.77	100.10
Cations (based on 12 oxygens)					
Si	3.000	2.973	2.995	2.9813	2.956
Ti	0	0	0	0	0
Cr	0	0.030	0	0.031	0
Al	1.972	1.967	1.980	1.954	1.984
Fe^{3+}	0.028	0.059	0.030	0.053	0.105
Fe^{2+}	2.106	2.079	2.056	1.948	1.729
Mn	0.038	0.036	0.040	0.074	0.198
Mg	0.337	0.286	0.327	0.417	0.494
Ni	0	0	0	0	0
Ca	0.518	0.572	0.572	0.543	0.535
Na	0	0	0	0	0
K	0	0	0	0	0
End-members					
Grossular	0.159	0.148	0.176	0.14	0.128
Almandine	0.702	0.699	0.687	0.653	0.585
Pyrope	0.112	0.096	0.109	0.14	0.167
Spessartine	0.013	0.012	0.013	0.025	0.067
Andradite	0.014	0.03	0.015	0.027	0.053
Uvarovite	=	0.015	=	0.016	=
Ti-Al Garnet	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=

Table S16

Sample (thin section): **5319**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	54.76	54.44	54.74	53.77	55.28	55.04	55.7	54.39	54.97	53.38
TiO_2	=	=	=	=	=	=	=	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	5.88	7.88	7.96	7.5	6.76	7.66	7.19	6.61	7.6	5.68
Fe_2O_3	7.59	6.19	7.37	7.29	7.07	7.11	7.18	6.93	6.62	7.27
FeO	3.37	3.37	2.84	2.79	3.43	3.51	3.34	3.52	3.67	3.57
MnO	=	=	=	=	=	=	=	=	=	=
MgO	8.02	7.3	7.36	7.14	7.84	7.21	7.7	7.62	7.19	7.85
NiO	=	=	=	=	=	=	=	=	=	=
CaO	14.16	12.87	12.83	12.92	13.94	12.98	13.91	14.07	13.36	14.29
Na_2O	6.4	6.95	7.13	6.95	6.65	7.08	6.84	6.45	6.93	6.03
K_2O	=	=	=	=	=	=	=	=	=	=
Total	100.18	99.00	100.23	98.36	100.98	100.58	101.86	99.59	100.33	98.07
Cations (based on 6 oxygens)										
Si	1.996	1.991	1.980	1.984	1.993	1.988	1.989	1.991	1.991	1.991
Ti	0	0	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.253	0.340	0.339	0.326	0.287	0.326	0.303	0.285	0.324	0.250
Fe^{3+}	0.208	0.170	0.201	0.202	0.192	0.193	0.193	0.191	0.180	0.204
Fe^{2+}	0.103	0.103	0.086	0.086	0.104	0.106	0.100	0.108	0.111	0.111
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.436	0.398	0.397	0.393	0.421	0.388	0.410	0.416	0.388	0.437
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.553	0.504	0.497	0.511	0.538	0.502	0.532	0.552	0.518	0.571
Na	0.452	0.493	0.500	0.497	0.465	0.496	0.474	0.458	0.487	0.436
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.274	0.248	0.239	0.248	0.266	0.245	0.261	0.271	0.255	0.281
Enstatite	0.218	0.199	0.198	0.196	0.211	0.194	0.205	0.208	0.194	0.218
Ferrosilite	0.051	0.052	0.043	0.043	0.052	0.053	0.05	0.054	0.056	0.056
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.208	0.17	0.201	0.202	0.192	0.193	0.193	0.191	0.18	0.204
Jadeite	0.244	0.323	0.3	0.295	0.273	0.303	0.281	0.267	0.306	0.232
$CaAl_2SiO_6$	0.004	0.009	0.02	0.016	0.007	0.012	0.011	0.009	0.009	0.009
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S17

Sample (thin section): **5319**

Garnets					
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**
SiO_2	33.13	33.71	33.77	35.40	34.47
TiO_2	=	=	=	=	=
Cr_2O_3	=	=	=	=	=
Al_2O_3	18.36	19.00	19.13	19.28	19.19
Fe_2O_3	3.94	4.08	4.76	3.78	4.60
FeO	33.58	29.57	33.26	29.63	28.50
MnO	3.01	1.79	2.92	2.12	1.29
MgO	1.38	3.94	2.27	3.83	3.12
NiO	=	=	=	=	=
CaO	1.82	3.16	2.12	4.01	6.30
Na_2O	=	=	=	=	=
K_2O	=	=	=	=	=
Total	95.22	95.26	98.23	98.05	97.47
Cations (based on 12 oxygens)					
Si	2.869	2.848	2.819	2.903	2.847
Ti	0	0	0	0	0
Cr	0	0	0	0	0
Al	1.874	1.892	1.882	1.864	1.868
Fe^{3+}	0.257	0.260	0.299	0.233	0.286
Fe^{2+}	2.432	2.090	2.322	2.032	1.968
Mn	0.221	0.128	0.206	0.147	0.090
Mg	0.178	0.496	0.283	0.468	0.384
Ni	0	0	0	0	0
Ca	0.169	0.286	0.190	0.352	0.557
Na	0	0	0	0	0
K	0	0	0	0	0
End-members					
Grossular	=	=	=	0.001	0.043
Almandine	0.811	0.697	0.774	0.677	0.656
Pyrope	0.059	0.165	0.094	0.156	0.128
Spessartine	0.074	0.043	0.069	0.049	0.030
Andradite	0.056	0.095	0.063	0.117	0.143
Uvarovite	=	=	=	=	=
Ti-Al Garnet	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=

Table S18

Sample (thin section): **7736**

Clinopyroxenes										
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SiO_2	56.66	58.01	57.05	56.81	56.06	55.6	54.34	55.3	56.72	60.17
TiO_2	=	=	=	=	=	=	0.52	=	=	=
Cr_2O_3	=	=	=	=	=	=	=	=	=	=
Al_2O_3	14.41	18.44	14.36	13.14	12.45	12.59	10.98	11.92	14.54	23.98
Fe_2O_3	8.76	4.71	7.98	8.36	2.79	2.16	9.14	10.84	6.19	=
FeO	2.99	2.8	3.53	3.09	7.39	7.56	5.46	2.07	4.49	1.38
MnO	=	=	=	=	=	=	=	=	=	=
MgO	2.33	1.25	2.27	2.97	3.72	3.81	2.21	3.25	2.41	0.7
NiO	=	=	=	=	=	=	=	=	=	=
CaO	3.95	2.37	3.9	4.64	11.34	12.1	5.06	5.56	3.74	1.48
Na_2O	11.98	13.22	12	11.56	8.3	7.9	10.69	11.03	11.7	14.29
K_2O	=	=	=	=	=	=	=	=	=	=
Total	101.08	100.80	101.09	100.57	102.05	101.72	98.40	99.97	99.79	102.00
Cations (based on 6 oxygens)										
Si	1.994	2.006	2.006	2.011	1.99	1.980	2.002	1.985	2.016	2.007
Ti	0	0	0	0	0	0	0.014	0	0	0
Cr	0	0	0	0	0	0	0	0	0	0
Al	0.598	0.752	0.595	0.548	0.520	0.528	0.477	0.504	0.609	0.943
Fe^{3+}	0.232	0.123	0.211	0.223	0.074	0.058	0.253	0.293	0.166	0
Fe^{2+}	0.088	0.081	0.104	0.092	0.219	0.225	0.168	0.062	0.133	0.039
Mn	0	0	0	0	0	0	0	0	0	0
Mg	0.122	0.064	0.119	0.157	0.197	0.202	0.121	0.174	0.128	0.035
Ni	0	0	0	0	0	0	0	0	0	0
Ca	0.149	0.088	0.147	0.176	0.431	0.462	0.200	0.214	0.142	0.053
Na	0.817	0.886	0.818	0.794	0.571	0.545	0.764	0.768	0.806	0.924
K	0	0	0	0	0	0	0	0	0	0
End-members										
Wollastonite	0.071	0.044	0.073	0.088	0.209	0.221	0.1	0.1	0.071	0.026
Enstatite	0.061	0.032	0.059	0.078	0.098	0.101	0.061	0.087	0.064	0.017
Ferrosilite	0.044	0.041	0.052	0.046	0.11	0.113	0.084	0.031	0.067	0.019
Pyroxmangite	=	=	=	=	=	=	=	=	=	=
Aegirine	0.232	0.123	0.211	0.223	0.074	0.058	0.253	0.293	0.166	=
Jadeite	0.585	0.752	0.595	0.548	0.496	0.488	0.477	0.475	0.609	0.924
$CaAl_2SiO_6$	0.006	=	=	=	0.012	0.02	0	0.015	=	=
$CaFeAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaCrAlSiO_6$	=	=	=	=	=	=	=	=	=	=
$CaTiAl_2O_6$	=	=	=	=	=	=	=	=	=	=

Table S19

Sample (thin section): **7736**

Garnets					
Oxides (wt %)	**1**	**2**	**3**	**4**	**5**
SiO_2	36.22	36.21	36.35	36.37	37.46
TiO_2	=	=	=	=	=
Cr_2O_3	=	=	=	=	=
Al_2O_3	20.35	20.65	20.17	20.58	20.74
Fe_2O_3	2.65	2.76	2.21	2.43	1.77
FeO	32.70	35.65	36.26	36.07	30.25
MnO	3.08	0.99	0.44	0.58	0.54
MgO	2.90	2.43	2.49	2.60	5.48
NiO	=	=	=	=	=
CaO	1.81	1.80	1.81	1.71	3.29
Na_2O	=	=	=	=	=
K_2O	=	=	=	=	=
Total	99.71	100.50	99.73	100.35	99.53
Cations (based on 12 oxygens)					
Si	2.944	2.931	2.963	2.944	2.976
Ti	0	0	0	0	0
Cr	0	0	0	0	0
Al	1.950	1.970	1.938	1.964	1.942
Fe^{3+}	0.163	0.169	0.136	0.148	0.106
Fe^{2+}	2.223	2.413	2.47	2.442	2.010
Mn	0.212	0.068	0.030	0.040	0.037
Mg	0.352	0.293	0.303	0.314	0.650
Ni	0	0	0	0	0
Ca	0.157	0.157	0.158	0.148	0.280
Na	0	0	0	0	0
K	0	0	0	0	0
End-members					
Grossular	=	=	=	=	0.041
Almandine	0.755	0.823	0.834	0.829	0.675
Pyrope	0.119	0.1	0.102	0.107	0.218
Spessartine	0.072	0.023	0.01	0.014	0.012
Andradite	0.053	0.053	0.053	0.05	0.053
Uvarovite	=	=	=	=	=
Ti-Al Garnet	=	=	=	=	=
Na-Ti Garnet	=	=	=	=	=

Table S20