

Table 4S - Orthopyroxene inclusions averaged major element compositions

Sample	16OM14	16OM16A	16OM17	16OM18	16OM20	16OM21	16OM25	16OM26	16OM27	16OM28	16OM29
Lithology	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	amph-dunite (± pl/cpx)	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite
Longitude	57.936904	57.937188	57.937362	57.937525	57.937777	57.937908	57.938641	57.938836	57.939020	57.939176	57.939412
Latitude	23.129303	23.129348	23.129405	23.129352	23.129236	23.129206	23.128824	23.128677	23.128565	23.128442	23.128313
Elevation (m)	900	918	931	940	955	962	1016	1031	1046	1058	1065
n analyses	1	9	1	1	1	2	1	1	2	1	2
SiO ₂	57.46	57.13	54.31	56.39	54.10	57.75	54.75	54.56	53.72	52.48	56.11
TiO ₂	0.13	0.15	0.25	0.75	0.13	0.12	0.10	0.02	0.11	0.19	0.18
Al ₂ O ₃	0.61	0.92	2.22	2.17	2.76	0.77	1.43	0.78	0.84	1.45	1.64
Cr ₂ O ₃	0.74	0.87	0.79	1.24	1.14	0.75	1.02	0.47	1.01	1.54	1.01
FeO (tot)	7.21	5.57	6.55	5.88	4.20	6.07	7.50	4.55	9.57	7.97	8.63
MgO	34.19	35.66	33.84	32.63	33.61	34.62	33.34	35.45	32.24	33.73	32.79
MnO	0.19	0.18	0.20	0.17	0.11	0.17	0.22	0.12	0.33	0.22	0.21
NiO	0.09	0.06	0.08	0.03	0.13	0.07	0.05	0.07	0.03	0.06	0.01
CaO	0.36	0.68	0.81	1.79	0.27	0.48	0.49	0.13	0.71	0.68	0.49
Na ₂ O	0.00	0.02	0.01	0.43	0.14	0.01	0.02	0.27	0.04	0.01	0.01
K ₂ O	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.04	0.07	0.01	0.02
Total	100.98	101.25	99.07	101.48	96.59	100.81	98.92	96.46	98.67	98.34	101.10
XMg	89.42	91.94	90.20	90.82	93.45	91.04	88.78	93.28	85.67	88.31	87.13

$$XMg = 100 \times Mg / (Mg + Fe^{2+})$$