

Table 1

Content and carbon isotope compositions in total carbon (TC), total organic carbon (TOC) and total inorganic carbon (TIC) of gabbroic and ultramafic rocks from the central dome (IODP Holes 1309B and 1309D)

Hole/Leg	Sample number	Depth (mbsf)	Type of rock	Alteration (%)	TC <sup>a</sup> (ppm)	TIC (ppm)	TOC (ppm)	% TIC	$\delta^{13}\text{C}$ WR TC (‰)	$\delta^{13}\text{C}$ WR TOC (‰)
304-1309D	1R-1 72–80 cm	21.22	Basalt–diabase	50	202	101	101	50	−18.0	−27.8
304-1309D	1R-3 4–8 cm	23.31	Talc–schist	100	335	130	205	39	−22.2	−27.9
304-1309D	17R-2 9–17 cm	99.89	Gabbro	40	199	121	78	61	−20.9	−28.7
304-1309D	27R-3 6–9 cm	155.14	Harzburgite	90	2569	2186	383	85	−5.8	−26.9
304-1309D	31R-2 19–30 cm	173.15	Harzburgite	90	2713	2481	232	91	−3.2	−27.0
304-1309D	42R-1 0–8 cm	224.30	Talc-rich harzburgite	90	1838	823	1015	45	−8.6	−28.3
304-1309D	51R-4 30–38 cm	270.98	Gabbro	10	1240	235	1005	19	−24.9	−28.4
304-1309D	58R-1 50–57 cm	300.90	Olivine-rich troctolite	70	219	98	121	45	−14.7	−27.7
304-1309D	60R-3 36–46 cm	313.19	Troctolite	50	468	269	199	57	−16.3	−27.6
304-1309D	64R-1 6–17 cm	329.26	Troctolite	50	710	338	372	48	−14.4	−27.8
304-1309D	65R-2 22–30 cm	335.72	Cr-rich harzburgite	55	536	331	205	62	−8.7	−27.3
304-1309D	70R-2 80–90 cm	360.49	Olivine gabbro–troctolite gabbro	30	380	195	185	51	−11.8	−28.2
304-1309D	71R-3 32–38 cm	365.68	Olivine gabbro–troctolite gabbro	40	137	47	90	34	−20.1	−28.9
305-1309D	83R-1 16–26 cm	415.16	Olivine gabbro–troctolite gabbro	5	249	173	76	69	−14.9	−26.7
305-1309D	83R-1 54–64 cm	415.54	Olivine gabbro–troctolite gabbro	50	903	418	485	46	−9.7	−27.9
305-1309D	84R-2 8–17 cm	420.96	Oxide gabbro–leucocratic alteration	60	866	483	383	56	−15.4	−28.2
305-1309D	91R-2 46–54 cm	455.34	Troctolite	20	462	366	96	79	−10.7	−28.7
305-1309D	91R-2 110–117 cm	455.98	Troctolite	5	179	72	107	40	−17.5	−28.6
305-1309D	100R-1 42–46 cm	497.02	Olivine-rich troctolite	10	412	152	260	37	−15.2	−27.7
305-1309D	111R-1 111–116 cm	550.51	Troctolite	10	522	295	227	57	−9.1	−27.5
305-1309D	111R-4 31–39 cm	553.88	Troctolite	20	285	182	103	64	−11.4	−27.7
305-1309D	115R-4 60–70 cm	573.34	Olivine gabbro–troctolite gabbro	40	433	348	85	80	−11.9	−28.4
305-1309D	116R-1 58–68 cm	573.98	Oxide gabbro–leucocratic alteration	50	3188	2590	598	81	−5.7	−28.3
305-1309D	126R-2 15–20 cm	623.00	Oxide gabbro–leucocratic alteration	30	997	434	563	44	−10.9	−28.2
305-1309D	130R-2 47–56 cm	642.52	Gabbro	30	1621	1037	584	64	−6.3	−28.4
305-1309D	136R-2 21–29 cm	670.97	Olivine gabbro–troctolite gabbro	20	492	199	293	40	−13.7	−27.7
305-1309D	136R-2 60–71 cm	671.36	Olivine gabbro–troctolite gabbro	20	1063	576	487	54	−10.7	−27.9
305-1309D	137R-1 85–91 cm	675.05	Oxide gabbro	40	344	96	248	28	−21.4	−27.6
305-1309D	158R-1 47–51 cm	770.67	Gabbro	30	1822	1490	332	82	−5.2	−27.9
305-1309D	169R-1 90–100 cm	823.90	Gabbro	5	275	191	84	69	−15.1	−27.9
305-1309D	189R-4 60–71 cm	923.64	Troctolite	3	235	139	96	59	−12.0	−27.9
305-1309D	194R-2 70–80 cm	939.58	Olivine gabbro–troctolite gabbro	1	360	260	100	72	−15.7	−27.1
305-1309D	221R-3 120–130 cm	1066.98	Olivine gabbro–troctolite gabbro	5	229	113	116	49	−15.8	−27.4
305-1309D	227R-3 37–42 cm	1095.30	Olivine-rich troctolite	20	304	153	151	50	−17.7	−27.7

305-1309D	227R-3	104–109 cm	1095.97	Olivine-rich troctolite	5	352	157	195	45	-12.9	-27.1
305-1309D	232R-1	20–31 cm	1115.30	Olivine-rich troctolite	10	299	130	169	43	-11.5	-27.6
305-1309D	233R-1	24–30 cm	1120.14	Olivine gabbro–troctolite gabbro	30	471	175	296	37	-15.9	-27.4
305-1309D	234R-2	102–110 cm	1127.22	Olivine-rich troctolite	10	527	286	241	54	-12.5	-27.8
305-1309D	237R-2	7–17 cm	1140.59	Olivine-rich troctolite	10	450	242	208	54	-11.7	-27.9
305-1309D	241R-2	97–108 cm	1160.74	Olivine-rich troctolite	10	285	142	143	50	-11.5	-28.6
305-1309D	241R-2	117–123 cm	1160.94	Olivine gabbro–troctolite gabbro	30	167	74	93	44	-20.1	-27.7
305-1309D	248R-1	114–120 cm	1193.04	Olivine-rich troctolite	5	152	99	53	65	-15.4	-28.8
305-1309D	256R-2	46–56 cm	1231.90	Olivine-rich troctolite	10	656	404	252	62	-11.4	-27.4
305-1309D	292R-2	78–88 cm	1398.63	Gabbro	20	267	207	60	78	-17.3	-26.7
304-1309B	11R-1	23–30 cm	57.23	Harzburgite	90	573	417	156	73	-9.4	-28.2

<sup>a</sup> TC content is the sum of the measured TOC and TIC contents (TC = TOC + TIC).