Table S1: Summary table of the main petrogeochemical characteristics of the various Mako belt rocks types.

Series	Tholeiitic series 1				Tholeiitic series 2			Calc- alkaline series			
Lithology	Lherzolite	Harzburgite	Gabbro 1	Basalt 1	Wehrlite	Gabbro 2	Basalt 2	Gabbro	Basalt	Andesite	Dacite
Mineralogy	Chr, Ol, Opx Cpx, Amph, Phlo	Chr, Ol, Opx Amph	Cpx, Plg, Amph, Chr, Apat, Ilm	Cpx, Plg, Amph	Chr, Ol, Cpx Amph, Phlo	Cpx, Plg, Amph	Plg, Amph	Cpx, Plg	Cpx, Plg	Cpx, Plg, Amph	Plg, Amph, Biot, Qtz
Olivine	Fo_{78-85}	Fo_{79-81}			Fo_{82-85}						
Cpx	Wo_{34-42}, En_{48-57}, Fs_{5-10}		Wo_{34-48}, En_{36-54}, Fs_{9-24}	Wo_{28-41}, En_{42-58}, Fs_{12-21}	Wo_{31-41}, En_{53-59}, Fs_{6-11}	Wo_{34-39}, En_{43-48}, Fs_{15-22}		Wo_{34-45}, En_{29-50}, Fs_{8-29}		Wo_{33-41}, En_{42-53}, Fs_{10-21}	
Opx	Wo_{1-5}, En_{78-84}, Fs_{14-19}	Wo_{1-3}, En_{80-82}, Fs_{16-18}									
Amph	Si = 6.4 - 6.1; X_{Mg} = 0.9 - 0.8	Si = 7.1 - 6.5; X_{Mg} = 0.9 - 0.8	Si = 7.5 - 7.4; X_{Mg} = 0.8 - 0.7	Si = 7.4 - 6.6; X_{Mg} = 0.8 - 0.6	Si = 6.4; X_{Mg} = 0.8	Si = 7.4; X_{Mg} = 0.7 - 0.6	Si = 7.4 - 6.6; X_{Mg} = 0.8 - 0.6			Si = 7.5 - 6.1; X_{Mg} = 0.9 - 0.6	Si = 6.9 - 6.8; X_{Mg} = 0.7 - 0.6
ΣREE (ppm)	35 - 113	70	128 - 448	175 - 1058	45 - 119	139 - 944	298 - 1294	326 - 399		544 - 703	
La_N/Sm_N	0.7 - 0.9	1	0.8 - 1.1	0.8 - 1.1	1.3 - 1.5	1.2 - 1.7	1.3 - 1.6	2.4 - 2.7	2.4 - 2.9	2.2 - 3.1	3.5
Gd_N/Yb_N	1.3 - 1.8	1.6	1.1 - 1.9	1.4 - 1.7	1.4 - 1.6	1.5 - 1.8	1.7 - 1.9	1.7 - 1.9	1.8 - 2.1	1.6 - 3	2.5
Eu/Eu*	0.8 - 1	1	0.8 - 1.1	0.7 - 0.9	0.9	0.8 - 0.9	0.7 - 0.9	0.8 - 0.9	0.8 - 0.9	0.7 - 0.8	0.8
Traces anomalies -	Th, Nb, Rb, Ba	Th, Nb, Rb, Ba	Th, Nb, Ti, Sr	Th, Pb, Nb, Ti	Nb, Sr, Ti	Th, Nb, Sr, Ti	Th, Pb, Nb, Sr, Ti	Nb, Ti	Nb, Sr, Ti	Th, Nb, Pb, Sr, Ti	Th, Nb, Ti
Traces anomalies +			Nb, Ti, Sr	Nb	Ba, U	Th, Sr, Ti	Nb, Pb, Sr			Th, Sr	Pb, Sr
Enrichment in LREE	2 - 89 times chondrites				4 - 134 times chondrites			51 - 124 times chondrites			
La_N/Sm_N	0.7 - 1.1				1.2 - 1.7			2.1 - 3.5			
La_N/Yb_N	0.8 - 2				2 - 3.7			4.7 - 14			
Isotops (Values calculated at 2.1 Ga)	$^{87}Sr/^{86}Sr$ = 0.701922 ± 11 εNd = +3.5 ± 0.01				$^{87}Sr/^{86}Sr$ = 0.702322 ± 86 εNd = +3.3 ± 0.01			$^{87}Sr/^{86}Sr$ = 0.702760 ± 200 εNd = +3 ± 0.02			
Magmatic source α(Sm/Nd)	Juvenile 1 - 1.2				Enriched 0.8 - 1			More enriched 0.6 - 0.8			
Geodynamic context	Oceanic plateau				Immature oceanic arc			Mature oceanic arc			

Table S2: Whole rock major and trace element concentrations of the three magmatic series.

Lithology	Basalt_Th1						Gabbro_Th1										
Sample	IL4	IL25	IL40	IL48	IL59	54933	IL22	IL26	IL27	IL30	IL37	IL41	IL43	IL46	IL47	IL49	IL52
Lat. (N)	12°50'96''	12°49'77''	12°52'59''	12°54'12''	12°49'36''		12°50'57''	12°50'10''	12°50'19''	12°49'72''	12°50'61''	12°52'59''	12°50'61''	12°54'00''	12°53'99''	12°54'12''	12°49'69''
Long. (W)	12°26'13''	12°22'84''	12°23'08''	12°23'51''	12°20'45''		12°21'81''	12°22'12''	12°22'08''	12°20'54''	12°21'75''	12°23'08''	12°21'75''	12°23'85''	12°23'84''	12°23'51''	12°19'43''
SiO_2	51.79	50.07	47.84	52.16	53.7		49.7	49.02	50.75	47,00	48.45	48.36	43.92	48.26	48.18	47.47	49.48
TiO_2	2.06	0.73	0.77	1.62	0.64		0.69	0.9	0.84	0.5	1.12	0.73	1.26	1.18	1.07	1.02	0.7
Al_2O_3	13.34	14.17	15.82	11.43	13.83		14.1	14.45	13.67	15.49	18.01	15.04	16.6	13.98	15.08	15.24	14.3
CaO	4.97	11.22	11.27	9.01	6.69		13.03	10.5	11.49	11.3	9.17	10.65	17.77	12.19	11.97	9.85	11.45
Cr_2O_3	0.04	0.05	0.08	0.06	0.03		0.08	0.08	0.01	0.03	0.08	0.08	0.03	0.05	0.03	0.04	0.03
Fe_2O_3	16.58	12.02	12.43	18.07	11.77		12.01	13.03	13.87	10.93	13.46	12.01	13.19	13.19	12.67	13.67	11.84
K_2O	0.37	0.23	0.15	0.17	0.11		0.05	0.26	0.09	0.02	0.91	0.22	0.18	0.46	0.35	1.42	0.78
MgO	5.67	7.71	8.21	4.6	7.84		6.44	7.7	5.48	10.33	4.39	8.64	4.16	6.72	7.38	7.91	7.68
MnO	0.32	0.18	0.22	0.24	0.2		0.18	0.18	0.21	0.17	0.18	0.18	0.23	0.23	0.21	0.19	0.17
Na_2O	3.11	1.39	2.34	2.16	3.31		1.53	1.53	1.58	1.31	3.04	1.79	0.6	2.13	1.62	1.48	1.4
P_2O_5	0.15	0.06	0.06	0.13	0.05		0.04	0.1	0.06	0.04	0.08	0.06	0.1	0.11	0.08	0.09	0.05
LOI	1.4	2.4	0.7	0.4	2.6		1.8	2.4	2.1	3.3	1.4	2.4	1.8	1.5	1.6	1.7	2.5
Total	99.8	100.2	99.9	100	100.7		99.6	100.2	100.2	100.5	100.3	100.2	99.8	100	100.2	100.1	100.4
XMg	0.4	0.56	0.57	0.33	0.57		0.51	0.54	0.44	0.65	0.39	0.59	0.38	0.5	0.53	0.53	0.56
Ni	45	207	199	201	165	381	24	324	67	373	1138	198	63	108	101	165	218
Cr	200	362	444	481	210	735	36	588	90	212	1881	403	119	184	203	285	319
V	358	258	275	468	253	194	28	259	322	192	513	270	344	311	289	273	230
Li	45.69	11.82	6.52	5.78	8.61	19.95	9.7	8.83	6.8	13.79	15.03	18.95	2.21	8.39	18.61	17.95	11.68
Cs	0.36	0.19	0.02	0.15	0.21	0.26	0.09	0.28	0.05	0.09	1.25	0.24	0.05	0.6	0.38	0.95	0.34
Rb	11.29	5.03	1.53	3.14	1.35	3.03	0.42	7.11	1.46	0.21	54.12	5.04	2.4	9.74	7.64	34.88	21.65
Ba	81.73	33.79	23.69	35.27	34.56	60.7	21	63.84	28.25	13.34	360	35.98	185.9	53.42	63.02	167.58	81.93
Th	0.5	0.14	0.14	0.34	0.12	1.07	0.1	0.24	0.12	0.06	0.46	0.12	0.34	0.33	0.36	0.26	0.22
U	0.13	0.04	0.04	0.15	0.05	0.29	0.03	0.07	0.04	0.03	0.12	0.05	0.15	0.1	0.1	0.06	0.07
Nb	5.19	1.56	1.61	2.67	1.17	11.51	1.07	2.18	1.48	1.03	5.5	1.45	4.3	2.41	2.08	2.4	2.17
La	6.53	1.94	1.87	5.16	1.49	14.1	1.35	2.92	1.86	1.31	5.34	2.09	4.93	3.79	3.21	3.14	2.99
Ce	20.28	5.63	5.64	14.38	4.42	37.8	3.9	8.39	5.28	3.76	16.1	6.16	12.5	11.31	9.16	8.98	8.21
Pb	2.47	0.37	0.58	1.23	0.11	1.68	1.34	0.36	0.24	0.44	2.75	0.47	3.45	1.62	1.02	1.08	0.4
Pr	3.07	0.89	0.89	2.15	0.7	5.6	0.62	1.29	0.85	0.6	2.31	0.97	1.98	1.78	1.38	1.37	1.2
Sr	135.67	130.59	133.35	93.19	98.56	217.82	200.35	104.58	120.02	107.75	646.2	114.24	1076.15	191.35	130.95	119.44	158.84
Nd	15.53	4.64	4.79	11.21	3.78	28.63	3.35	6.74	4.56	3.13	12.03	5.1	10.03	9.54	7.19	7.11	6.04
Zr	63.55	20.36	4.21	22.62	19.9	114.2	15.27	22.37	14.08	12.4	28.9	12.29	24.04	29.17	26.67	20.26	32.08
Sm	4.98	1.58	1.65	3.67	1.37	9.24	1.19	2.31	1.64	1.07	4	1.75	3.26	3.25	2.37	2.36	1.88
Eu	1.72	0.65	0.66	1.29	0.48	3	0.55	0.86	0.66	0.45	1.56	0.71	1.34	1.07	0.9	0.89	0.78
Gd	6.34	2.28	2.42	4.81	2.03	12.6	1.78	3.25	2.45	1.53	5.52	2.49	4.44	4.46	3.17	3.16	2.49
Ti	12783	4068	4314	9002	3529	16663	3298	4676	4920	2771	10430	4005	7852	6660	5922	5431	4258
Dy	6.92	2.73	2.95	5.54	2.71	13.9	2.2	3.98	3.24	1.81	5.98	2.94	4.72	5.14	3.68	3.63	2.7
Ho	1.44	0.59	0.64	1.19	0.61	2.98	0.48	0.87	0.73	0.4	1.26	0.64	1	1.12	0.79	0.76	0.57
Er	4.04	1.71	1.85	3.41	1.79	8.12	1.41	2.45	2.17	1.13	3.34	1.82	2.68	3.18	2.27	2.13	1.59
Y	37.35	16.12	17.42	29.39	16.97	84.18	13.12	24.06	20.87	9.51	35.55	15.5	27.91	31.9	22.13	21.25	14.04
Yb	3.49	1.6	1.67	3.14	1.71	7.17	1.29	2.25	2.13	1	2.76	1.65	2.28	2.75	2.09	1.91	1.37
Lu	0.47	0.22	0.23	0.44	0.25	0.95	0.18	0.3	0.3	0.14	0.39	0.24	0.32	0.38	0.3	0.26	0.19
Sn	1.6	0.51	0.44	1.3	0.39	3.76	0.46	0.7	0.42	0.33	2.77	0.39	0.96	0.65	0.76	0.61	0.61
Sb	0.89	0.07	0.03	0.38	0.03	0.38	0.27	0.09	0.06	0.16	0.55	0.1	1.09	0.29	0.27	0.22	0.11
Tb	1.07	0.41	0.44	0.83	0.39	2.14	0.32	0.59	0.46	0.27	0.94	0.44	0.75	0.79	0.56	0.56	0.43
W	6.74	1.99	1.53	8.03	1.46	11.78	2.53	1.91	1.81	1	12.4	1.04	5.45	2.26	2.27	0.65	1.52
Ta	0.35	0.11	0.12	0.19	0.08	0.77	0.07	0.15	0.1	0.07	0.33	0.11	0.27	0.19	0.15	0.17	0.16
Mo	13.24	19.94	4.72	43.1	19.79	76.32	27.12	39.08	8.54	9.66	220.65	4.38	5.62	13.16	10.75	3.21	23.03
Hf	1.83	0.78	0.34	1.12	0.8	2.93	0.51	1.05	0.57	0.5	1.05	0.51	1.12	1.27	1.13	0.67	1
ΣREE	545	192	200	422	175	1058	148	277	213	128	448	208	369	367	277	269	219
La_N/Yb_N	1.76	1.15	1.06	1.55	0.82	1.85	0.98	1.22	0.83	1.23	1.82	1.19	2.04	1.3	1.45	1.55	2.05
La_N/Sm_N	0.94	0.88	0.81	1	0.78	1.09	0.81	0.9	0.81	0.87	0.95	0.86	1.08	0.83	0.97	0.95	1.14
Gd_N/Yb_N	1.73	1.36	1.38	1.46	1.13	1.68	1.31	1.38	1.1	1.46	1.91	1.44	1.86	1.55	1.45	1.58	1.74
La_N/Nd_N	0.91	0.91	0.85	1	0.86	1.07	0.87	0.94	0.89	0.91	0.97	0.89	1.07	0.86	0.97	0.96	1.08
Sm_N/Gd_N	1.08	0.96	0.94	1.05	0.93	1.01	0.92	0.98	0.92	0.97	1	0.97	1.01	1	1.03	1.03	1.04
Dy_N/Lu_N	1.74	1.44	1.52	1.49	1.30	1.74	1.44	1.56	1.26	1.51	1.82	1.48	1.75	1.59	1.45	1.63	1.66
Eu/Eu*	0.82	0.92	0.9	0.83	0.78	0.75	1.02	0.85	0.89	0.96	0.9	0.92	0.95	0.76	0.89	0.88	0.97

Table S2: Continued

Lithology	Gabbro_Th1						Basalt_Th2			Gabbro_Th2								
Sample	IL53	IL54	IL62	IL66	IL67	ILM9	IL13	IL44	IL57	IL11	IL16	IL19	IL20	IL31	IL33	IL36	IL50	IL61
Lat. (N)	12°50'12''	12°50'15''	12°49'93''	12°49'98''	12°50'61''	12°50'55''	12°50'37''	12°54'04''	12°53'98''	12°50'02''	12°49'71''	12°50'74''	12°50'72''	12°50'88''	12°49'97''	12°51'39''	12°50'51''	12°53'97''
Long. (W)	12°19'79''	12°19'82''	12°19'80''	12°19'72''	12°21'75''	12°22'01''	12°19'96''	12°23'83''	12°23'72''	12°19'59''	12°19'42''	12°21'49''	12°21'51''	12°21'61''	12°21'54''	12°21'95''	12°20'36''	12°23'63''
SiO_2	49.02	49.61	50.02	50.24	48.51	49.1	49.87	46.95	57.72	47.11	48.88	49.33	51.32	52.2	54.78	51.43	46.86	48.99
TiO_2	1.12	0.6	0.63	0.61	1.02	0.68	1.37	1.88	2.09	0.69	0.8	1.26	0.61	0.51	1.47	0.5	0.45	2.73
Al_2O_3	14.04	15.29	14.58	6.96	16.11	14.25	15.61	15.22	12.33	14.25	13.95	13.34	13.75	6.06	12.75	12.37	7.01	13.68
CaO	11.87	10.81	11.58	14.82	10.28	7.68	6.77	9.65	5.24	10.28	11,00	10.15	11.2	13.63	5.57	12.17	9.9	8.24
Cr_2O_3	0.02	0.04	0.02	0.31	0.04		0.05	0.05	0.07	0.09	0.04	0.01	0.08	0.18	0.02	0.07	0.31	0.01
Fe_2O_3	13.06	9.88	11.75	11.25	13.15	11.4	12.61	13.7	13.06	11.35	12.56	15.06	10.33	9.87	15.22	9.06	11.24	16.04
K_2O	0.19	0.17	0.2	0.1	0.46	0.19	1.77	0.67	0.53	0.28	0.77	0.33	0.24	0.2	0.43	0.29	0.05	0.33
MgO	6.55	7.73	7.52	13.31	5.53	11.7	6.12	6.71	1.7	10.56	7.57	5.84	8.49	14.9	2.72	10.49	19.5	5.36
MnO	0.19	0.16	0.19	0.21	0.2	0.18	0.11	0.21	0.12	0.18	0.19	0.2	0.17	0.18	0.18	0.15	0.18	0.39
Na_2O	1.77	3.35	1.76	1.26	2.38	1.72	2.63	3.25	3.94	2.43	2.11	1.84	1.66	0.85	2.71	2.09	0.43	2.61
P_2O_5	0.06	0.05	0.04	0.04	0.08	0.06	0.17	0.33	1.96	0.07	0.05	0.07	0.05	0.04	0.16	0.04	0.03	0.39
LOI	2.4	2.7	2.1	1.6	2.1	1.9	2.6	2.3	1.2	2.8	2.2	2.4	2.4	1.6	3.5	1.8	4.3	0.8
Total	100.2	100.4	100.4	100.7	99.8	98.9	99.7	100.9	99.9	100.1	100.1	99.8	100.3	100.2	99.6	100.4	100.2	99.6
XMg	0.5	0.61	0.56	0.7	0.45	0.67	0.49	0.49	0.2	0.65	0.54	0.43	0.62	0.75	0.26	0.7	0.78	0.39
Ni	98	354	97	691	230	949	13	259	83	319	152	75	812	569	66	349	910	108
Cr	90	532	98	1860	376	1478	16	440	484	576	168	75	1161	1326	250	494	1969	195
V	368	206	217	256	275	408	13	334	60	203	293	483	201	200	344	175	158	460
Li	4.81	7.78	9.47	6.88	16.8	11.43	6.28	18.85	21.02	46.26	11.75	14.06	13.43	7.82	21.35	11.05	18.28	15.58
Cs	0.34	0.43	0.28	0.1	0.36	0.04	0.63	0.4	0.54	1.09	0.44	0.08	0.07	0.09	0.22	0.18	0.15	0.32
Rb	3.22	3.08	4.23	2.26	13	2.21	39.57	8.73	13.92	5.6	16.73	9	6.66	5.44	16.02	6.39	0.59	4.97
Ba	72.22	47.73	27.56	29.14	159.77	85.8	101.32	95.2	188.1	127.55	92.09	109.11	27.87	28.81	187.3	61.79	75.7	83.62
Th	0.27	0.15	0.18	0.13	0.27	0.14	0.49	0.42	1.71	0.39	0.17	0.56	0.43	0.26	1.95	0.33	0.2	1.11
U	0.07	0.04	0.05	0.04	0.08	0.07	0.14	0.16	0.56	0.12	0.05	0.13	0.12	0.07	0.5	0.08	0.06	0.28
Nb	2.44	1.69	1.51	1.28	2.64	3.2	4.5	8.39	16.12	2.67	1.82	3.67	2.79	1.5	13.94	1.91	1.29	12.47
La	2.86	2.27	2.31	1.8	3.38	3.12	5.64	10.38	21.16	4.62	2.93	5.26	4.21	2.41	18.9	3.03	2.22	15.83
Ce	7.93	6.35	6.11	4.88	9.66	8.7	15.05	27.34	59.13	11.77	7.74	13.56	10.4	6.33	45.3	7.49	5.5	41.87
Pb	0.4	0.41	0.5	1.67	0.9	0.2	0.84	3.03	2.14	1.02	0.29	3.19	0.96	1.25	3.13	1.61	0.57	2.36
Pr	1.18	0.96	0.91	0.83	1.47	1.4	2.12	3.95	8.99	1.55	1.1	1.84	1.41	0.91	5.95	1.05	0.78	6.21
Sr	144.94	212.64	138.22	55.29	280.99	166.95	96.02	333.35	156.63	189.3	137.79	143	132.94	44.43	223.45	146.91	40.58	219.77
Nd	6.05	4.93	4.56	4.47	7.58	7.4	9.73	18.82	42.78	7.08	5.44	8.69	6.47	4.44	27.48	4.9	3.82	28.88
Zr	25.96	24.32	25.96	26.43	22.84	17.1	42.56	60.35	235.69	41.56	22.32	42.14	33.15	26.1	103.77	22.05	26.34	143
Sm	1.91	1.62	1.43	1.55	2.46	2.55	2.53	4.98	11.35	1.89	1.67	2.58	1.84	1.36	7.75	1.46	1.14	7.36
Eu	0.77	0.64	0.62	0.58	0.95	1.01	0.91	1.67	3.21	0.65	0.68	0.94	0.66	0.46	2.63	0.54	0.46	2.19
Gd	2.61	2.17	1.95	2.16	3.36	3.76	2.88	5.85	13.13	2.3	2.17	3.22	2.23	1.87	9.49	1.85	1.51	8.23
Ti	6284	3432	3480	3420	5651	6354	5110	11316	12075	3846	4488	7574	3280	2599	12947	2548	2206	15925
Dy	2.89	2.47	2.15	2.45	3.73	4.46	2.81	6.09	13.47	2.47	2.36	3.47	2.45	2.04	10.02	2.02	1.69	8.38
Ho	0.61	0.51	0.46	0.53	0.77	0.98	0.58	1.29	2.83	0.53	0.49	0.73	0.51	0.43	2.1	0.42	0.35	1.74
Er	1.68	1.43	1.26	1.43	2.11	2.77	1.62	3.59	7.93	1.56	1.33	2.01	1.4	1.19	5.65	1.18	0.99	4.82
Y	17.04	13.09	12.2	14.65	21.4	25.61	16.27	33.31	80.42	14.18	11.87	20.36	13.71	11.72	59.87	11.61	9.43	46.63
Yb	1.56	1.27	1.12	1.25	1.77	2.52	1.43	3.21	7.05	1.44	1.17	1.76	1.26	1.07	5.01	1.08	0.89	4.36
Lu	0.22	0.18	0.16	0.18	0.23	0.35	0.2	0.46	0.99	0.21	0.16	0.25	0.17	0.15	0.71	0.15	0.12	0.62
Sn	0.61	0.67	0.39	0.81	0.71	1.68	0.65	1.15	2.12	0.48	0.5	1.06	1.39	0.55	2.16	0.4	0.3	1.64
Sb	0.07	0.21	0.03	0.12	0.46	0.17	0.04	0.3	0.33	0.05	0.1	0.52	0.85	0.41	0.54	0.39	0.18	0.18
Tb	0.45	0.38	0.34	0.38	0.58	0.67	0.46	0.98	2.13	0.39	0.37	0.55	0.38	0.32	1.6	0.32	0.26	1.34
W	2.09	1.33	1.66	1.7	3.2	7.79	0.82	1.69	15.99	19.24	1.05	2.36	5.32	27.11	10.27	0.68	0.26	2.56
Ta	0.17	0.12	0.11	0.08	0.18	0.18	0.3	0.49	0.95	0.17	0.13	0.26	0.19	0.11	0.96	0.14	0.09	0.75
Mo	6.46	50.49	9.09	79.2	42.76	139	11.7	34.06	37.42	6.9	15.09	6.3	153.36	38.21	19.27	6.75	3.39	22.81
Hf	0.89	0.83	0.84	0.86	0.9	0.7	1.23	2.02	6.29	1.22	0.74	1.4	1	0.82	3.29	0.74	0.83	3.69
ΣREE	225	186	170	173	278	308	298	591	1294	241	195	306	224	163	944	176	139	860
La_N/Yb_N	1.73	1.69	1.94	1.35	1.8	1.17	3.71	3.05	2.83	3.02	2.37	2.82	3.15	2.13	3.56	2.65	2.34	3.43
La_N/Sm_N	1.07	1	1.15	0.83	0.98	0.87	1.6	1.49	1.33	1.75	1.25	1.46	1.64	1.26	1.74	1.48	1.39	1.54
Gd_N/Yb_N	1.6	1.63	1.66	1.64	1.82	1.42	1.92	1.74	1.78	1.52	1.77	1.75	1.69	1.67	1.81	1.64	1.62	1.8
La_N/Nd_N	1.03	1	1.1	0.88	0.97	0.92	1.26	1.2	1.08	1.42	1.17	1.32	1.42	1.18	1.5	1.35	1.26	1.19
Sm_N/Gd_N	1.01	1.03	1.01	0.99	1.01	0.94	1.21	1.18	1.19	1.13	1.07	1.1	1.14	1	1.13	1.09	1.04	1.23
Dy_N/Lu_N	1.55	1.61	1.63	1.62	1.92	1.51	1.63	1.57	1.61	1.38	1.73	1.67	1.67	1.61	1.68	1.6	1.6	1.6
Eu/Eu*	0.94	0.93	1	0.85	0.89	0.88	0.91	0.83	0.71	0.84	0.97	0.88	0.88	0.78	0.83	0.89	0.94	0.76

Table S2: Continued

Lithology	Gabbro_C-A				Basalt_C-A		Andesite				Dacite
Sample	IL64	IL68	69	125	IL17	IL23	IL34	IL42	ILN7	MKNT318	IL5
Lat. (N)	12°54'43''	12°35'26''	12°49'57''	12°50'70''	12°50'32''	12°50'49''	12°51'24''	12°52'80''	12°54'01''	12°49'27''	12°54'74''
Long. (W)	12°14'91''	12°22'61''	12°19'26''	12°19'24''	12°19'92''	12°21'97''	12°21'81''	12°21'31''	12°23'83''	12°19'38''	12°08'52''
SiO_2	55.87	51.74	48.5	48.8	54.93	55.76	58.21	53.62	49.7		62.23
TiO_2	0.86	0.81	2.67	2.23	1.03	0.94	1.01	0.58	0.85		0.71
Al_2O_3	15.13	14.84	15.41	13.78	15.9	18.52	16.09	12.77	12.7		14.67
CaO	7.77	6.67	14.33	14.28	7.19	5.35	3.47	8.78	10.1		4.91
Cr_2O_3	0.06	0.05	0.04	0.07	0.04	0.02	0.02	0.08			0.02
Fe_2O_3	9.37	11.05	6.04	7.04	9.68	8.43	9.03	9.17	9.4		6.15
K_2O	0.55	0.85	0.16	0.14	0.57	0.38	0.2	1.27	0.7		2.26
MgO	6.26	7.48	5.4	6.9	4.43	3.48	3.45	7.88	9.66		3.75
MnO	0.14	0.16	0.18	0.2	0.14	0.09	0.12	0.16	0.15		0.08
Na_2O	2.86	2.94	3.69	3.25	4.15	3.71	7.62	2.81	2.84		3.6
P_2O_5	0.12	0.13	0.8	0.54	0.14	0.12	0.16	0.18	0.25		0.16
LOI	1.5	3.1	2	2.2	1.9	3.2	1	3	2.7		1.2
Total	100.5	99.8	99.2	99.5	100.1	100	100.4	100.3	99.3		99.8
XMg	0.55	0.55	0.62	0.64	0.45	0.43	0.41	0.61	0.65		0,52
Ni	23	230	137	193	104	36	93	137	302	610	124
Cr	40				256	57	110	708	746	1709	247
V	18	219	295	230	200	132	187	219	203	361	102
Li	24.79	19.67	20	22.03	10.12	23.19	13.57	69.23	24.48	37.06	23.1
Cs	0.73	0.54	0.45	0.78	0.17	0.55	0.11	0.3	0.29	0.19	5.07
Rb	12.08	22.23	3.67	4.04	15.79	10.88	4.79	34.78	13.28	17.5	86.51
Ba	81.04	185.8	1172.42	835.9	159.11	123.43	75.34	343.9	397.5	267.1	560.03
Th	1.06	1.14	1.25	0.82	1.11	2.48	1.33	1.82	1.49	1.06	4.23
U	0.27	0.46	0.3	0.21	0.23	0.65	0.35	0.58	0.73	0.51	1.97
Nb	5.71	4.79	20.94	12.26	6.06	6.82	7.66	5.67	3.77	12.02	6.32
La	10.84	8.09	16.52	11.61	11.08	17.29	14.36	20.07	19.65	16.98	16.1
Ce	23.84	19.19	47.07	32.76	25.09	36.63	31.52	29.23	47	38.8	32.91
Pb	1.34	1.75	0.56	1.09	2.05	10.87	2.11	5.16	2.9	2.89	7.27
Pr	2.94	2.32	6.18	4.53	3.25	4.51	3.95	4.69	6.54	4.78	3.96
Sr	176.38	270.86	2057.23	1362.24	150.05	162.77	100.91	336.36	711.21	191.74	440.68
Nd	12.38	9.65	29.55	21.77	14.04	18.15	16.72	20.67	29.01	21.09	15.82
Zr	89.62	47.74	190.88	125.17	42.46	80	158.29	94.68	88.05	146.16	96.02
Sm	2.91	2.41	7.81	5.82	3.34	4.2	4	4.62	5.74	5.44	3.28
Eu	0.94	0.91	2.55	2	1.1	1.29	1.22	1.4	1.57	1.56	0.98
Gd	3.16	2.78	8.71	6.53	3.49	4.31	4.34	6.55	4.27	6.2	2.87
Ti	4769	5298	26061	16967	5784	4882	5741	4422	5035	7612	3789
Dy	3.21	2.99	8.04	6.27	3.47	4.35	4.62	6.72	3.03	6.58	2.38
Ho	0.68	0.63	1.61	1.25	0.71	0.9	0.97	1.45	0.59	1.38	0.45
Er	1.91	1.76	4.13	3.3	2.03	2.43	2.77	3.92	1.55	3.87	1.21
Y	19.56	17.56	49.21	35.72	20.55	25.67	28.16	43.51	17.06	36.41	12.97
Yb	1.8	1.41	3.09	2.44	1.83	1.98	2.59	3.16	1.37	3.41	1.09
Lu	0.26	0.18	0.41	0.33	0.27	0.25	0.38	0.45	0.2	0.52	0.16
Sn	0.88	0.13	1.13	0.58	0.84	1.17	1.15	0.66	0.91	2.1	1.07
Sb	0.18				0.32	0.33	0.26		0.09	0.38	0.68
Tb	0.52	0.46	1.35	1.05	0.56	0.71	0.73	1.04	0.57	1.06	0.42
W	3.2	1.99	1.43	1.55	8.47	1.66	2.34	3.27	1.26	17.6	3.83
Ta	0.41	0.33	1.31	0.79	0.44	0.61	0.54	0.51	0.19	0.87	0.53
Mo	17.44	11.82	8.42	19.6	14.82	5.19	6.68	11.03	17.82	64.4	14.62
Hf	2.29	1.86	6.87	4.28	1.24	1.59	4.04	3.27	2.41	4.17	2.84
ΣREE	399	326	862	641	432	574	544	681	681	703	456
La_N/Yb_N	5.68	5.39	5.05	4.48	5.7	8.25	5.23	5.99	13.53	4.7	13.97
La_N/Sm_N	2.66	2.4	1.51	1.44	2.38	2.95	2.57	3.11	2.45	2.23	3.51
Gd_N/Yb_N	1.67	1.88	2.7	2.55	1.82	2.08	1.6	1.98	2.98	1.74	2.52
La_N/Nd_N	1.91	1.83	1.22	1.16	1.72	2.07	1.87	2.11	1.47	1.75	2.21
Sm_N/Gd_N	1.27	1.2	1.24	1.23	1.32	1.34	1.27	0.97	1.86	1.21	1.58
Dy_N/Lu_N	1.47	1.99	2.35	2.26	1.53	2.08	1.44	1.78	1.8	1.5	1.82
Eu/Eu*	0.83	0.94	0.83	0.87	0.86	0.81	0.79	0.69	0.82	0.72	0.84

Table S3: Rb/Sr and Sm/Nd isotopic data.

Series	Lithology	Sample	Rb	Sr	$^{87}Rb/^{86}Sr$	$^{87}Sr/^{86}Sr$	$2\sigma\ 10^{-6}$	$^{87}Sr/^{86}Sr$ (2.1 Ga)	Sm	Nd	$^{147}Sm/^{144}Nd$	$^{143}Nd/^{144}Nd$	$2\sigma\ 10^{-6}$	$^{143}Nd/^{144}Nd$ (2.1 Ga)	εNd (2.1 Ga)	α(Sm/Nd)
Tholeiitic series 1	Basalt_Th1	IL4	11.29	135.67	0.231	0.708821	5	0.701827	4.98	15.53	0.192	0.512743	6	0.510081	3.19	1.03
		IL25	5.03	130.59	0.107	0.704827	4	0.701572	1.58	4.64	0.206	0.512934	6	0.510082	3.22	1.11
		IL40	1.53	133.35	0.032	0.702624	1	0.701646	1.65	4.79	0.211	0.51302	12	0.510096	3.5	1.14
		IL48	3.14	93.19	0.094	0.705043	11	0.702200	3.67	11.21	0.199	0.512855	4	0.510096	3.48	1.07
		IL59	1.35	98.56	0.038	0.702803	10	0.701643	1.37	3.78	0.22	0.513115	12	0.510079	3.15	1.18
		54933	3.03	217.82	0.039	0.702814	4	0.701631	9.24	28.63	0.188	0.512794	6	0.51019	5.33	1.05
	Gabbro_Th1	IL22	0.42	200.35	0.005	0.702263	10	0.702094	1.19	3.35	0.223	0.513113	17	0.510028	2.16	1.17
		IL26	7.11	104.58	0.189	0.706801	9	0.701079	2.31	6.74	0.206	0.512962	16	0.51011	3.77	1.12
		IL27	1.46	120.02	0.034	0.702731	5	0.701696	1.64	4.56	0.218	0.513087	7	0.510069	2.97	1.17
		IL30	0.21	107.75	0.006	0.702019	5	0.701842	1.07	3.13	0.206	0.512974	5	0.510123	4.02	1.12
		IL37	54.12	646.2	0.235	0.709009	4	0.701885	4	12.03	0.194	0.512828	7	0.510145	4.45	1.06
		IL41	5.04	114.24	0.123	0.705861	9	0.702139	1.75	5.1	0.206	0.512959	18	0.510108	3.74	1.12
		IL43	2.4	1076.15	0.006	0.702292	5	0.702102	3.26	10.03	0.19	0.512737	6	0.510114	3.85	1.03
		IL49	34.88	119.44	0.813	0.726654	5	0.702059	2.36	7.11	0.193	0.512538	10	0.509865	-1,04	0.97
		IL52	21.65	158.84	0.38	0.713755	12	0.702242	1.88	6.04	0.19	0.512705	14	0.510073	3.05	1.02
		IL53	3.22	144.94	0.062	0.703726	9	0.701844	1.91	6.05	0.192	0.512762	9	0.510108	3.74	1.04
		IL54	3.08	212.64	0.041	0.703287	3	0.702057	1.62	4.93	0.2	0.512826	7	0.510055	2.69	1.06
		IL67	13	280.99	0.129	0.705997	5	0.702076	2.46	7.58	0.197	0.512816	6	0.510096	3.49	1.06
		ILM9	2.21	166.95	0.037	0.70486	4	0.703734	2.55	7.4	0.201	0.512946	5	0.510165	4.85	1.11
Tholeiitic series 2	Basalt_Th2	IL13	39.57	96.02	1.161	0.737926	4	0.702774	2.53	9.73	0.152	0.512216	4	0.51012	3.96	0.82
		IL44	8.73	333.35	0.073	0.704082	5	0.701856	4.98	18.82	0.162	0.512295	7	0.51006	2.78	0.86
		IL57	13.92	156.63	0.248	0.7103	12	0.702787	11.35	42.78	0.159	0.512281	9	0.510087	3.32	0.85
	Gabbro_Th2	IL11	5.6	189.3	0.083	0.705252	11	0.702744	1.89	7.08	0.162	0.512299	13	0.510061	2.81	0.86
		IL16	16.73	137.79	0.338	0.713228	5	0.702989	1.67	5.44	0.186	0.512669	7	0.510102	3.6	1
		IL19	9	143	0.176	0.707564	4	0.702245	2.58	8.69	0.173	0.5125	5	0.510105	3.67	0.94
		IL31	5.44	44.43	0.335	0.711536	4	0.701392	1.36	4.44	0.188	0.512692	7	0.510093	3.43	1.01
		IL33	16.02	223.45	0.201	0.708872	4	0.702774	7.75	27.48	0.164	0.512547	5	0.510271	6.93	0.94
		IL36	6.39	146.91	0.121	0.705626	4	0.701957	1.46	4.9	0.18	0.512505	6	0.510018	1.96	0.94
		IL61	4.97	219.77	0.063	0.703964	10	0.702043	7.36	28.88	0.154	0.512201	10	0.510072	3.03	0.82
Calc-alkaline series	Gabbro	IL64	12.08	176.38	0.191	0.707908	5	0.702117	2.91	12.38	0.143	0.512017	5	0.510041	2.42	0.76
		69	3.67	2057.23	0.005	0.702233	5	0.70207	7.81	29.55	0.157	0.512249	6	0.510082	3.22	0.84
		125	4.04	1362.24	0.009	0.702309	3	0.702038	5.82	21.77	0.158	0.512314	7	0.510124	4.04	0.86
	Basalt	IL17	15.79	150.05	0.296	0.71099	4	0.696153	3.34	14.04	0.139	0.512022	7	0.510047	2.53	0.73
		IL23	10.88	162.77	0.187	0.707881	10	0.702225	4.2	18.15	0.138	0.511941	7	0.510038	2.35	0.73
	Andesite	IL34	4.79	100.91	0.132	0.706784	1	0.702784	4	16.72	0.144	0.512021	9	0.510023	2.07	0.76
		IL42	34.78	336.36	0.287	0.711524	1	0.702839	4.62	20.67	0.132	0.511879	16	0.510053	2.64	0.7
		ILN7	13.28	711.21	0.052	0.703284	5	0.701697	5.74	29.01	0.115	0.511742	6	0.510146	4.47	0.63
		MKNT318	17.5	191.74	0.257	0.714319	4	0.706551	5.44	21.09						
	Dacite	IL5	86.51	440.68	0.551	0.718421	5	0.701754	3.28	15.82	0.126	0.511836	6	0.510098	3.53	0.68
Standards	NBS 987					0.710274	4									
	La jolla											0.511842	2			

Table S4: Summary table of the main geochemical characteristics of the various types of UM rocks, gabbros and basalts from the WAC.

Location and references	Lithology	Trace elements geochemistry	Isotope geochemistry (Values calculated at 2.1 Ga)	Geodynamic context
Mako belt (Senegal) Dia et al. (1997)	Basalts	ΣREE = 137 - 415 ppm La_N/Yb_N = 1.5 - 4.9	$^{143}Nd/^{144}Nd$ = 0.509916 - 0.509965 εNd = + 2.5 to 3.5	Intra-oceanic volcanic arc
Mako belt (Senegal) Abouchami et al. (1990)	Basalts	ΣREE = 127 - 268 ppm La_N/Yb_N = 1.2 - 2.3	$^{87}Sr/^{86}Sr$ = 0.701069 - 0.705153 εNd = +1.2 to + 8.6	Oceanic plateau
Mako belt (Senegal) Dioh (1995)	Basalts Gabbros	ΣREE = 145 - 206 ppm La_N/Yb_N = 1.3 - 1.8 ΣREE = 124 - 186 ppm La_N/Yb_N = 1.1 - 1.6		MORB-Arc transition
Mako belt (Senegal) Diallo (2001)	Basalts	ΣREE = 98 - 240 ppm La_N/Yb_N = 0.5 - 3.9		Intra-oceanic volcanic arc
Mako belt (Senegal) Pawlig et al. (2006)	Basalts	ΣREE = 223 - 460 ppm La_N/Yb_N = 1 - 2.6	$^{87}Sr/^{86}Sr$ = 0.701240 - 0.701680 εNd = +2.1 to + 4	Intra-oceanic volcanic arc
Mako belt (Senegal) Ngom et al. (2007)	Basalts	ΣREE = 99 - 369 ppm La_N/Yb_N = 0.8 - 5.8		Mid-ocean ridge (MORB)
Mako belt (Senegal) Ngom et al. (2010)	Basalts Gabbros Lherzolite Wehrlite	ΣREE = 178 - 326 ppm La_N/Yb_N = 1.2 - 1.9 ΣREE = 181 - 227 ppm La_N/Yb_N = 2 - 2.2 ΣREE = 92 ppm La_N/Yb_N = 1.9 ΣREE = 68 ppm La_N/Yb_N = 2.8	$^{87}Sr/^{86}Sr$ = 0.703442 εNd = +3.4 to +8.6 $^{87}Sr/^{86}Sr$ = 0.708215 εNd = +3.4 to +3.9 $^{87}Sr/^{86}Sr$ = 0.702642 εNd = +3.4 $^{87}Sr/^{86}Sr$ = 0.703664 εNd = +3.9	Oceanic plateau
Bouroum-Nord (Burkina Faso) Zonou (1987)	Basalts of group I Basalts of group II	ΣREE = 230 - 239 ppm La_N/Yb_N = 1.2 - 1.4 ΣREE = 164 - 352 ppm La_N/Yb_N = 0.4 - 0.7		Mid-ocean ridge (N-MORB)
Boromo and Hounde (Burkina Faso) Baratoux et al. (2011)	Basalts, gabbros and amphibolites of groups I and II Basalts of group III	ΣREE = 135 - 465 ppm La_N/Yb_N = 1 - 3.8 Anomalies = Th-, Nb- ΣREE = 260 - 325 ppm La_N/Yb_N = 2.3 - 5.7 Anomalies = Th-, Nb-		Juvenile arc or oceanic plateau Intra-oceanic volcanic arc
Liptako (Niger) Ama Salah et al. (1996)	Basalts of subgroup 1a Basalts of subgroup 1b Gabbros of subgroup 1b	ΣREE = 99 - 217 ppm La_N/Yb_N = 0.7 - 1.3 Anomalies = Th-, Nb- ΣREE = 114 - 875 ppm Anomalies = Th-, Nb- ΣREE = 270 - 665 ppm Anomalies = Th-, Nb-	$^{87}Sr/^{86}Sr$ = 0.700734 - 0.701929 εNd = +1.8 to +5.3	Intra-oceanic volcanic arc
Haute-Comoe (Côte d'Ivoire) Pouclet et al. (1996)	Basalts of group I Basalts of group II	ΣREE = 129 - 457 ppm La_N/Yb_N = 2.8 - 3.7 Anomalies = Th-, Nb-, Zr- ΣREE = 296 - 597 ppm La_N/Yb_N = 2 - 3 Anomalies = Zr-		Oceanic plateau
Marabadiassa Greenstone Belt (Côte d'Ivoire) Pouclet et al. (2006)	Wehrlite Dunite	ΣREE = 17 ppm La_N/Yb_N = 2.9 Anomalies = Nb-, U+, Sr+, Zr+ ΣREE = 12 ppm La_N/Yb_N = 1.7 Anomalies = Nb-, U+, Sr+, Zr+		Oceanic plateau
Yaoure greenstone belt (Côte d'Ivoire) Mériaud et al. (2020)	Basalts	ΣREE = 185 - 271 ppm La_N/Yb_N = 1.1 - 2.5 Anomalies = Nb+, Sr+, Y-		
Kadiolo belt (Mali) Sangaré (2008)	Gabbro-norites and norites Dunite Wehrlite	ΣREE = 29 - 79 ppm La_N/Yb_N = 1.4 - 10 Anomalies = Th-, Nb-, Zr- ΣREE = 18 - 25 ppm La_N/Yb_N = 2.6 - 3.9 ΣREE = 23 ppm La_N/Yb_N = 4.3		Immature intra-oceanic volcanic arc
Dixcove (Ghana) Attoh et al. (2006)	Dunite Harzburgite	ΣREE = 23 - 45 ppm La_N/Yb_N = 0.7 - 1.2 ΣREE = 23 - 90 ppm La_N/Yb_N = 0.7 - 1.2		Back-arc
Ashanti belt (Ghana) Dampare et al. (2008 and 2009)	Basalts and basaltic andesites of type I Basalts and basaltic andesites of type II	ΣREE = 128 - 212 ppm La_N/Yb_N = 0.7 - 0.9 Anomalies = Th-, Nb- ΣREE = 193 - 310 ppm La_N/Yb_N = 2.7 - 5.6 Anomalies = Th-, Nb-, Zr-	$^{87}Sr/^{86}Sr$ = 0.700475 - 0.706226 εNd = -1.1 to +10	Back-arc
Ashanti belt (Ghana) Dampare et al. (2019)	Akétakyi gabbros Axim gabbros Kégyina gabbros Dunite Harzburgite	ΣREE = 129 - 178 ppm La_N/Yb_N = 0.3 - 0.8 Anomalies = Th-, Nb-, Zr- ΣREE = 328 - 484 ppm La_N/Yb_N = 5.7 - 7.6 Anomalies = Th-, Nb-, Zr- ΣREE = 94 - 519 ppm La_N/Yb_N = 3.2 - 7.5 Anomalies = Th-, Nb-, Zr- ΣREE = 50 ppm La_N/Yb_N = 1.2 ΣREE = 18 - 84 ppm La_N/Yb_N = 0.7 - 1.2	$^{87}Sr/^{86}Sr$ = 0.702287 εNd = +5.2 $^{87}Sr/^{86}Sr$ = 0.700971 - 0.701038 εNd = -1.2 $^{87}Sr/^{86}Sr$ = 0.701394 - 0.70166 εNd = -0.9 to +4.1 $^{87}Sr/^{86}Sr$ = 0.700477 εNd = +3.7 to +4.9	Back-arc