

Appendix 2: Representative whole-rock analyses of Upper Cretaceous Zagros ophiolites.

<i>Rock Type</i>	<i>basaltic lava</i>	<i>basaltic lava</i>	<i>basaltic dyke</i>	<i>andesitic dyke</i>	<i>diabasic dyke</i>	<i>pillow lava</i>
<i>Sample</i>	<i>KH 09-17</i>	<i>KH 09-19</i>	<i>KH 09-26</i>	<i>KH 09-31</i>	<i>KH 09-36</i>	<i>KH09-20</i>
<i>Ophiolite</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>
SiO₂	49.6	50.3	51.9	54.8	51.4	52.0
Al₂O₃	16.7	17.2	15.4	15.3	15.4	16.4
MgO	9.25	10.00	4.69	4.02	4.76	8.00
CaO	10.8	11.2	9.23	12.5	8.95	10.4
FeO_t	8.41	9.01	10.6	3.94	10.6	8.73
MnO	0.134	0.146	0.100	0.081	0.120	0.157
TiO₂	1.09	1.02	2.06	0.942	1.71	1.25
Na₂O	3.04	2.60	4.18	5.87	4.05	3.41
K₂O	0.24	0.29	1.22	0.48	1.41	0.17
P₂O₅	0.09	0.07	0.35	0.16	0.25	0.4
LOI	0.98	0.95	0.85	0.84	0.43	0.48
Total	100.38	102.75	100.57	98.96	99.15	101.35
Mg no.	66.23	66.43	44.05	64.53	44.44	62.04
Sr	180	108	373	403	313	146
Ba	38	26	147	78	177	12
V	184	174	185	84	190	221
Ni	173	167	19	18	11	139
Cr	366	317	30	89	<i>bdl</i>	290
Sc	28.6	27.6	20.1	12.8	20.6	33.2
Y	21.1	20.5	42.3	51.4	36.4	28
Rb	4.6	7.8	69.0	5.8	099	3.32
Zr	78.1	69.2	232	474	212	84.3
Nb	2.79	1.02	10.3	17.4	9.00	2.69
Cs	<i>bdl</i>	<i>bdl</i>	2	<i>bdl</i>	3	<i>bdl</i>
Hf	2.01	1.94	5.29	10.4	5.00	2.22
Ta	0.225	0.106	0.873	1.41	0.742	0.207
Pb	4.78	3.77	15.9	13.4	8.47	126
Th	0.241	0.136	4.57	10.3	4.68	0.317
U	0.14	0.09	1.33	3.18	1.34	4.97
La	3.31	2.20	16.6	7.53	17.6	4.10
Ce	09.8	7.68	37.5	24.9	36.6	11.5
Pr	1.65	1.39	5.10	4.42	4.86	1.88
Nd	8.66	7.62	22.8	22.8	21.4	9.73
Sm	2.80	2.58	6.27	6.99	5.46	3.08
Eu	1.20	1.12	2.04	1.45	1.98	1.08
Gd	2.7	2.8	5.8	6.3	5.5	3.9
Tb	0.6	0.6	1.0	1.3	1.0	0.7
Dy	3.81	3.95	7.81	8.82	6.64	4.70
Ho	0.876	0.913	1.72	2.04	1.48	1.02
Er	2.15	2.13	4.33	5.07	3.62	2.67
Tm	0.350	0.355	0.668	0.862	0.591	0.442
Yb	2.18	2.10	4.26	5.49	3.81	2.61
Lu	0.31	0.34	0.65	0.84	0.58	0.381

<i>Rock Type</i>	<i>basaltic lava</i>	<i>andesitic dyke</i>	<i>diabasic dyke</i>	<i>pillow lava</i>	<i>pillow lava</i>	<i>pillow lava</i>
<i>Sample</i>	<i>KH09-24</i>	<i>KH09-34</i>	<i>KH09-37</i>	<i>KH09-83-2</i>	<i>KH09-83-3</i>	<i>KH09-82</i>
<i>Ophiolite</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>
SiO2	50.0	55.9	54.1	51.8	52.1	53.4
Al2O3	15.9	15.6	15.7	14.9	15.3	14.9
MgO	4.69	2.20	2.91	4.47	4.73	2.89
CaO	9.81	4.82	13.6	6.96	6.78	5.83
FeOt	10.9	11.5	4.43	10.3	10.1	10.5
MnO	0.179	0.198	0.0912	0.136	0.150	0.137
TiO2	1.91	2.13	2.76	1.81	1.78	2.46
Na2O	3.69	5.62	6.13	4.97	4.57	6.43
K2O	0.89	2.15	0.40	1.17	1.70	0.79
P2O5	0.5	0.6	0.5	0.4	0.4	0.5
LOI	2.12	0.41	0.57	1.67	1.50	1.21
Total	100.56	101.11	101.18	98.61	99.11	99.00
Mg no.	43.42	25.42	53.95	43.61	45.52	32.92
Sr	311	243	310	235	353	141
Ba	128	272	33	156	351	63
V	202	123	231	186	184	261
Ni	68	<i>bdl</i>	13	16	17	6
Cr	200	<i>bdl</i>	<i>bdl</i>	30	30	<i>bdl</i>
Sc	30.3	30.6	28.9	24.3	25.6	26.2
Y	41	71	64	41	41	45
Rb	29.2	91.0	3.75	28.9	44.2	16.1
Zr	166	426	316	201	200	230
Nb	7.37	17.8	14.4	8.80	8.62	10.8
Cs	1	3	<i>bdl</i>	<i>bdl</i>	<i>bdl</i>	<i>bdl</i>
Hf	4.08	9.56	7.23	4.85	4.75	5.44
Ta	0.552	1.33	1.08	0.684	0.676	0.815
Pb	3.01	4.06	1.98	5.06	5.23	6.69
Th	2.69	9.43	6.17	4.48	4.30	4.71
U	1.21	2.87	4.82	1.26	1.18	1.17
La	12.2	31.3	17.5	15.7	15.9	17.5
Ce	28.8	69.6	61.0	35.6	35.5	39.8
Pr	4.15	9.20	10.7	4.90	4.89	5.51
Nd	19.2	38.7	49.7	21.4	21.3	24.0
Sm	5.26	9.44	11.8	5.46	5.45	6.19
Eu	1.65	2.17	2.79	1.64	1.66	1.90
Gd	6.1	9.9	11.1	6.0	6.0	6.8
Tb	1.1	1.8	1.9	1.1	1.1	1.2
Dy	6.83	11.5	10.9	6.78	6.69	7.47
Ho	1.46	2.48	2.25	1.48	1.45	1.64
Er	3.81	6.74	5.98	3.93	3.86	4.27
Tm	0.642	1.16	0.993	0.663	0.657	0.721
Yb	3.70	6.79	5.73	3.85	3.88	4.16
Lu	0.547	0.983	0.792	0.569	0.571	0.623

<i>Rock Type</i>	<i>diabasic dyke</i>	<i>andesitic dyke</i>	<i>pillow lava</i>	<i>diabasic dyke</i>	<i>dolerite</i>	<i>dolerite</i>
<i>Sample</i>	<i>KH 09-76</i>	<i>KH-09-75</i>	<i>KH-09-83-4</i>	<i>KH-09-79</i>	<i>HG 10-4</i>	<i>HG 10-8</i>
<i>Ophiolite</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Kermanshah*</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>
SiO₂	49.4	53.6	52.3	49.2	68.69	66.61
Al₂O₃	15.2	16.9	15.6	16.0	14.24	13.16
MgO	3.34	6.41	5.03	6.41	1.36	1.7
CaO	7.38	6.28	7.04	10.2	2.01	2.2
FeO_t	13.3	7.81	10.1	8.36	4.59	6.07
MnO	0.205	0.136	0.176	0.155	0.07	0.11
TiO₂	2.51	1.22	1.83	1.40	0.47	0.59
Na₂O	4.78	4.88	4.86	3.37	5.77	6.7
K₂O	1.61	1.21	1.11	0.82	0.47	0.09
P₂O₅	0.38	0.18	0.26	0.21	0.12	0.09
LOI	1.61	2.42	2.16	2.94	2.1	2.6
Total	99.64	101.00	100.53	99.08	99.87	99.9
Mg no.	30.90	59.39	46.93	57.75	34.57	33.30
Sr	335	320	293	281	577.1	107.6
Ba	244	261	145	106	52	30
V	252	171	198	162	74	115
Ni	<i>bdl</i>	33	17	100	2.9	1.8
Cr	<i>bdl</i>	62	26	219	<i>nd</i>	<i>nd</i>
Sc	17.2	7.2	7.8	7.5	14	15
Y	46.3	25	37	28	34.8	41.7
Rb	59.2	36.2	24.0	17.9	11.1	1.5
Zr	255	125	200	138	115	224.2
Nb	10.7	5.22	8.19	6.39	2.4	9.7
Cs	<i>bdl</i>	<i>bdl</i>	<i>bdl</i>	<i>bdl</i>	0.6	0.3
Hf	5.82	2.88	4.43	3.21	3.5	5.8
Ta	0.886	0.46	0.73	0.52	0.1	0.6
Pb	35.5	9.90	8.70	7.18	6.3	1.7
Th	5.15	3.61	4.82	3.32	1.3	1.6
U	1.34	0.69	1.08	0.69	0.5	0.5
La	20.4	11.6	16.9	12.0	9.2	12.6
Ce	44.6	24.3	36.1	26.5	20.8	32.9
Pr	6.02	3.22	4.82	3.64	3.05	4.73
Nd	26.9	13.8	20.9	15.7	15.7	21.4
Sm	6.91	3.69	5.37	4.16	4.11	6
Eu	2.40	1.36	1.81	1.57	1.08	1.38
Gd	6.9	4.1	6.2	4.7	4.94	6.55
Tb	1.3	0.7	1.0	0.8	0.9	1.24
Dy	8.38	4.42	6.49	4.92	5.48	7.56
Ho	1.85	0.99	1.45	1.09	1.19	1.65
Er	4.54	2.43	3.71	2.82	3.86	5.18
Tm	0.709	0.38	0.56	0.43	0.61	0.8
Yb	4.68	2.32	3.59	2.69	3.97	5.31
Lu	0.69	0.38	0.58	0.43	0.62	0.83

<i>Rock Type</i>	<i>basalt</i>	<i>andesite</i>	<i>pillow lava</i>	<i>pillow lava</i>	<i>pillow lava</i>	<i>pillow lava</i>
<i>Sample</i>	<i>HG 10-14</i>	<i>HG 10-17</i>	<i>HG 10-21</i>	<i>HG 10-25</i>	<i>HG 10-26</i>	<i>HG 10-37</i>
<i>Ophiolite</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>
SiO2	39.03	60.41	43.38	41.84	40.35	50.74
Al2O3	14.8	13.94	15.78	14.88	14.67	14.43
MgO	3.35	2.27	4.62	4.38	3.73	5.97
CaO	20.74	4.16	13.39	14.98	15.91	14.28
FeO_t	7.95	7.11	8.1	6.82	7.41	8.32
MnO	0.13	0.18	0.13	0.1	0.09	0.13
TiO2	0.79	0.95	1.48	1.76	1.69	0.28
Na2O	2.13	5.83	3.4	3.96	4.22	0.79
K2O	0.02	0.33	1.4	0.75	0.77	0.02
P2O5	0.15	0.37	0.23	0.36	0.35	0.01
LOI	10.8	4.3	7.9	10	10.6	4.9
Total	99.91	99.86	99.83	99.84	99.84	99.89
Mg no.	42.90	36.27	50.42	53.38	47.30	56.13
Sr	102.7	317.3	335.7	310.5	355.3	35.9
Ba	25	225	130	91	161	10
V	232	124	222	227	219	301
Ni	67.2	1.3	123.4	123.6	126.8	58.7
Cr	<i>nd</i>	<i>nd</i>	<i>nd</i>	<i>nd</i>	<i>nd</i>	<i>nd</i>
Sc	28	20	28	27	26	49
Y	21.6	42.5	21.9	23.5	21.5	7
Rb	0.5	11.8	16	10.1	10.3	0.2
Zr	51.1	149.5	112.3	149.6	137.2	5
Nb	1.2	3.5	16.7	32.6	31	0.2
Cs	<0.1	0.5	0.8	1	1.1	<0.1
Hf	1.4	4.6	3.1	3.8	3.6	0.3
Ta	<0.1	0.2	0.9	1.8	1.8	<0.1
Pb	2.1	2.7	1.7	1.8	1.2	0.8
Th	0.7	1.8	1.5	2.6	2.9	0.2
U	0.2	0.6	0.3	0.6	0.8	0.1
La	4.6	13.4	12.4	20.5	19.6	0.2
Ce	9.4	32.2	27.2	42.4	40.1	0.5
Pr	1.45	4.77	3.55	5.12	4.85	0.09
Nd	7.2	23.6	16.1	22	20.2	0.4
Sm	2.04	5.97	3.55	4.54	4.32	0.33
Eu	0.86	1.79	1.29	1.45	1.43	0.17
Gd	2.96	6.78	3.96	4.69	4.51	0.59
Tb	0.53	1.13	0.67	0.75	0.73	0.16
Dy	3.19	6.78	3.77	4.06	3.92	1.07
Ho	0.69	1.43	0.8	0.81	0.77	0.29
Er	2.04	4.2	2.14	2.26	2.3	0.82
Tm	0.33	0.66	0.34	0.34	0.32	0.15
Yb	2	4.32	2.07	2.05	2.05	0.93
Lu	0.29	0.68	0.3	0.32	0.28	0.16

<i>Rock Type</i>	<i>pillow lava</i>	<i>lava flow</i>	<i>lava flow</i>	<i>gabbroic dyke</i>	<i>pillow lava</i>	<i>diab.dyke SDC</i>
<i>Sample</i>	<i>HG 10-38</i>	<i>HG 10-40</i>	<i>HG 10-41</i>	<i>HG 10-30</i>	<i>BAH-35</i>	<i>BAH-14</i>
<i>Ophiolite</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Haji-Abad§</i>	<i>Nain #</i>	<i>Nain #</i>
SiO2	54.17	44.36	43.96	40.64	48.90	53.40
Al2O3	13.23	17.98	18.28	17.06	15.60	14.10
MgO	6.09	5.67	4.26	9.74	7.26	3.57
CaO	12.36	12.91	16.72	21.85	9.74	13.10
FeO_t	7.85	10.3	9.76	5.23	8.78	9.90
MnO	0.13	0.15	0.13	0.1	0.14	0.15
TiO2	0.28	0.4	0.37	0.17	0.87	0.75
Na2O	1.45	1.88	0.23	0.3	3.56	0.00
K2O	0.06	0.01	0.01	0.01	0.79	0.00
P2O5	0.01	0.02	0.02	<0.01	0.12	0.06
LOI	4.2	6.2	6.2	4.6	3.22	4.25
Total	99.88	99.88	99.91	99.77	99.01	99.26
Mg no.	58.04	49.53	43.76	76.85	59.58	39.13
Sr	40	43.1	31.9	382.9	170.00	86.00
Ba	13	12	9	30	54.00	5.00
V	266	327	308	132	232.00	411.00
Ni	59.1	57.2	44.8	96.2	79.00	29.00
Cr	<i>nd</i>	<i>nd</i>	<i>nd</i>	<i>nd</i>	236.00	6.00
Sc	49	51	46	44	41.00	34.00
Y	6.3	9.8	12.6	4.2	19.90	18.90
Rb	0.9	<0.1	<0.1	<0.1	10.90	0.27
Zr	4.7	5.7	6.1	2.5	61.10	32.50
Nb	0.2	0.2	0.2	0.1	2.63	0.45
Cs	<0.1	<0.1	<0.1	0.2	0.39	0.02
Hf	0.2	0.3	0.2	0.2	1.57	1.12
Ta	<0.1	<0.1	<0.1	<0.1	0.19	0.03
Pb	1.6	1	0.9	0.3	2.05	5.47
Th	0.2	0.2	0.2	0.2	0.30	0.21
U	0.1	0.1	0.1	0.1	0.15	0.14
La	0.1	0.3	0.3	0.2	2.80	1.56
Ce	0.4	0.8	0.7	0.5	7.30	4.35
Pr	0.09	0.16	0.18	0.11	1.24	0.76
Nd	0.7	1.3	1.3	0.8	6.43	4.27
Sm	0.32	0.5	0.61	0.35	2.31	1.62
Eu	0.17	0.27	0.3	0.25	0.88	0.65
Gd	0.66	1.13	1.29	0.62	2.56	2.70
Tb	0.17	0.24	0.28	0.12	0.51	0.42
Dy	1.11	1.59	2.09	0.84	3.51	2.98
Ho	0.29	0.38	0.47	0.18	0.84	0.73
Er	0.9	1.17	1.49	0.48	2.19	1.97
Tm	0.16	0.19	0.26	0.08	0.31	0.34
Yb	1.07	1.18	1.66	0.45	2.20	2.07
Lu	0.17	0.2	0.27	0.06	0.35	0.33

<i>Rock Type</i>	<i>diab.dyke SDC</i>	<i>diab.dyke SDC</i>	<i>diabasic dyke</i>	<i>diabasic dyke</i>	<i>gabbro</i>	<i>amph. gabbro</i>
<i>Sample</i>	<i>BS05-13</i>	<i>BS05-16</i>	<i>BSU-10</i>	<i>BSU-11</i>	<i>BAH-12</i>	<i>BS05-11</i>
<i>Ophiolite</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>
SiO2	41.90	51.00	46.30	54.20	43.50	48.50
Al2O3	10.10	14.70	12.10	12.80	13.80	11.00
MgO	6.77	7.52	8.71	7.46	7.52	12.70
CaO	29.00	7.88	22.00	8.15	7.50	16.60
FeOt	6.42	8.91	6.66	9.38	20.70	6.67
MnO	0.10	0.21	0.16	0.19	0.29	0.13
TiO2	0.16	0.51	0.49	0.84	0.91	0.24
Na2O	0.25	4.51	0.20	4.20	0.72	0.25
K2O	0.01	0.52	0.00	0.34	1.90	0.03
P2O5	0.04	0.02	0.08	0.09	0.00	0.04
LOI	4.12	2.91	2.62	2.05	2.44	3.42
Total	98.85	98.65	99.30	99.63	99.20	99.60
Mg no.	65.28	60.08	69.98	58.64	39.31	77.25
Sr	52.00	83.20	81.40	252.00	135.00	33.00
Ba	20.00	23.30	5.63	20.10	254.00	12.00
V	196.00	264.00	179.00	263.00	882.00	172.00
Ni	54.00	56.00	82.10	61.90	27.00	117.00
Cr	231.00	177.00	238.00	192.00	3.00	299.00
Sc	34.00	41.60	28.20	33.00	87.00	38.00
Y	6.39	13.00	15.50	19.40	6.18	6.66
Rb	0.26	2.68	0.13	3.35	20.90	0.23
Zr	27.40	17.50	20.80	35.00	4.75	9.78
Nb	1.09	0.26	0.18	0.51	0.24	0.27
Cs	0.04	0.03	<i>bdl</i>	0.17	0.81	0.03
Hf	0.73	0.64	0.72	1.18	0.13	0.31
Ta	0.08	0.03	0.36	0.04	0.00	0.01
Pb	1.97	6.87	1.16	4.66	1.90	0.93
Th	0.24	0.09	0.05	0.37	0.08	0.04
U	0.21	0.06	0.04	0.12	0.04	0.02
La	1.24	0.85	0.76	2.31	0.16	0.34
Ce	2.62	2.36	2.17	5.96	0.64	1.02
Pr	0.35	0.44	0.41	1.00	0.11	0.19
Nd	1.59	2.50	2.46	5.46	0.73	1.12
Sm	0.42	1.02	1.10	1.95	0.43	0.52
Eu	0.17	0.48	0.40	0.72	0.31	0.22
Gd	0.61	1.59	1.29	2.17	0.67	0.74
Tb	0.12	0.27	0.23	0.43	0.14	0.15
Dy	0.91	2.02	2.43	3.23	1.07	1.10
Ho	0.24	0.49	0.54	0.72	0.26	0.26
Er	0.67	1.23	1.48	2.01	0.66	0.70
Tm	0.12	0.20	0.25	0.34	0.11	0.11
Yb	0.85	1.36	1.47	2.02	0.72	0.73
Lu	0.14	0.22	0.22	0.29	0.12	0.11

<i>Rock Type</i>	<i>microgabbro</i>	<i>microgabbro</i>	<i>microgabbro</i>	<i>gabbroic dyke</i>	<i>rhyolitic dyke</i>	<i>dacitic dyke</i>
<i>Sample</i>	<i>BAH-19</i>	<i>BAH-20</i>	<i>BS05-4B</i>	<i>BSP-3</i>	<i>BS05-8A</i>	<i>BS05-12</i>
<i>Ophiolite</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>	<i>Nain #</i>
SiO2	50.50	53.90	48.80	30.80	63.80	55.30
Al2O3	15.10	14.40	15.40	22.00	17.60	14.80
MgO	8.43	5.11	6.56	5.70	1.00	4.87
CaO	7.63	4.92	11.00	25.70	4.68	12.60
FeOt	9.03	12.30	8.84	3.93	2.15	2.93
MnO	0.17	0.22	0.16	0.08	0.04	0.04
TiO2	0.51	1.05	0.85	0.83	0.48	0.70
Na2O	3.82	4.74	3.63	0.00	8.79	5.23
K2O	1.04	0.43	0.79	0.00	0.25	0.08
P2O5	0.05	0.10	0.08	0.11	0.11	0.05
LOI	2.73	2.48	3.23	9.54	0.99	1.63
Total	99.06	99.67	99.41	98.67	99.83	98.18
Mg no.	62.47	42.55	56.95	72.11	45.33	74.77
Sr	132.00	130.00	232.00	247.00	78.10	59.70
Ba	79.00	23.00	102.00	2.44	78.10	9.87
V	256.00	379.00	241.00	142.00	40.20	278.00
Ni	71.00	19.00	84.00	65.70	0.26	35.70
Cr	234.00	10.00	352.00	66.00	0.13	87.80
Sc	39.00	41.00	37.00	13.40	21.10	31.30
Y	13.10	26.00	20.30	20.10	54.60	18.10
Rb	8.42	2.64	13.20	0.40	3.37	0.49
Zr	23.50	60.90	49.30	61.60	50.60	26.00
Nb	0.38	0.68	1.93	0.64	3.46	0.61
Cs	0.40	0.04	0.52	<i>bdl</i>	0.00	0.00
Hf	0.79	1.97	1.37	1.97	2.17	0.93
Ta	0.04	0.06	0.16	0.40	0.26	0.06
Pb	2.26	2.39	0.70	0.99	5.44	1.79
Th	0.30	0.58	0.16	0.34	0.67	0.20
U	0.12	0.31	0.16	0.15	0.32	0.13
La	1.19	3.15	2.18	2.73	3.88	1.29
Ce	3.20	8.25	6.01	7.74	12.00	4.33
Pr	0.56	1.39	1.05	1.33	2.17	0.78
Nd	3.29	7.76	5.70	7.28	12.00	4.36
Sm	1.25	2.90	2.05	2.50	4.76	1.79
Eu	0.51	1.04	0.83	0.95	1.02	0.58
Gd	1.75	3.45	2.55	2.65	6.12	2.17
Tb	0.32	0.66	0.49	0.50	1.18	0.38
Dy	2.36	4.72	3.34	3.90	8.68	2.82
Ho	0.58	1.09	0.80	0.87	2.02	0.68
Er	1.53	2.90	2.09	2.41	5.44	1.76
Tm	0.25	0.48	0.32	0.39	0.83	0.27
Yb	1.58	2.94	2.19	2.28	5.60	1.79
Lu	0.25	0.48	0.36	0.34	0.86	0.30

<i>Rock Type</i>	<i>diabasic dyke</i>	<i>diabasic dyke</i>	<i>pillow lava</i>	<i>pillow lava</i>	<i>pillow lava</i>	<i>pillow lava</i>
<i>Sample</i>	<i>A06-1</i>	<i>AZ06-29</i>	<i>A06-2</i>	<i>A06-3</i>	<i>DAR05-6</i>	<i>AZ06-32</i>
<i>Ophiolite</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>
SiO2	51.68	48.73	46.87	45.42	50.40	61.50
Al2O3	15.51	14.12	10.78	13.86	13.70	15.48
MgO	7.20	9.64	6.06	2.59	2.90	1.53
CaO	4.99	12.68	13.94	12.69	8.23	6.76
FeOt	10.03	9.35	9.15	10.45	11.80	6.84
MnO	0.16	0.11	0.15	0.15	0.17	0.20
TiO2	0.93	0.28	0.44	0.62	1.94	0.50
Na2O	4.40	1.38	4.60	5.88	5.46	4.58
K2O	1.39	0.06	0.71	0.15	0.55	0.04
P2O5	0.10	0.02	0.14	0.30	0.36	0.09
LOI	2.41	2.73	5.85	7.13	3.32	1.66
Total	98.80	99.10	98.68	99.24	98.82	99.17
Mg no.	56.13	64.78	54.14	30.61	30.47	28.49
Sr	868.73	272.42	203.72	187.28	240.00	287.90
Ba	192.01	13.64	81.81	42.27	74.60	13.43
V	281.19	236.01	360.50	290.53	270.00	98.13
Ni	58.70	94.63	211.20	27.34	118.00	4.89
Cr	109.90	299.41	580.29	38.12	161.00	6.12
Sc	36.88	46.98	49.38	37.91	38.00	16.94
Y	22.64	8.15	11.79	15.99	51.60	23.39
Rb	15.20	0.44	12.07	1.68	11.10	0.31
Zr	52.49	10.38	25.33	33.92	163.00	50.15
Nb	1.35	0.29	0.66	0.91	5.33	1.29
Cs	7.43	0.02	0.63	0.29	0.43	0.08
Hf	1.59	0.37	0.75	1.03	4.19	1.64
Ta	0.08	0.02	0.04	0.06	1.07	0.09
Pb	1.32	0.43	13.68	3.00	3.50	1.53
Th	0.77	0.12	0.52	0.77	0.54	0.61
U	1.13	0.08	0.41	0.38	0.24	0.42
La	4.89	0.57	4.57	5.57	7.83	3.78
Ce	10.63	1.41	8.01	11.17	20.40	9.03
Pr	1.55	0.24	1.14	1.59	3.24	1.45
Nd	7.54	1.36	5.39	7.33	16.80	7.33
Sm	2.31	0.57	1.47	1.94	5.34	2.30
Eu	0.80	0.21	0.49	0.64	1.88	0.87
Gd	2.48	0.74	1.42	1.89	6.76	2.59
Tb	0.52	0.16	0.27	0.36	1.22	0.53
Dy	3.35	1.11	1.63	2.25	8.28	3.42
Ho	0.79	0.28	0.38	0.53	1.94	0.86
Er	2.16	0.79	1.04	1.41	5.04	2.34
Tm	0.38	0.14	0.18	0.25	0.77	0.42
Yb	2.15	0.83	0.99	1.47	4.65	2.41
Lu	0.34	0.12	0.15	0.22	0.76	0.38

<i>Rock Type</i>	<i>basaltic dyke</i>	<i>andesitic dyke</i>	<i>am. gabbro</i>	<i>am. gabbro</i>	<i>dacitic dyke</i>	<i>dacitic dyke</i>
<i>Sample</i>	<i>AZ06-38</i>	<i>DZ05-1D</i>	<i>DZ05-1H</i>	<i>D06-3</i>	<i>AZ06-8</i>	<i>AZ06-11</i>
<i>Ophiolite</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>
SiO2	44.91	57.40	54.40	45.92	71.20	63.84
Al2O3	14.40	13.10	14.70	16.76	12.78	14.52
MgO	6.94	7.47	8.31	8.13	0.96	2.32
CaO	22.69	5.98	5.75	10.64	2.57	5.43
FeO_t	4.22	7.62	7.70	10.59	3.98	5.66
MnO	0.05	0.13	0.13	0.17	0.10	0.12
TiO2	1.82	0.39	0.52	0.51	0.32	0.35
Na2O	0.06	5.26	5.84	2.00	5.93	4.70
K2O	0.97	0.55	0.08	0.85	0.02	0.05
P2O5	0.21	0.05	0.05	0.04	0.03	0.04
LOI	2.64	1.20	2.01	3.04	1.21	2.05
Total	98.90	99.17	99.47	98.63	99.10	99.08
Mg no.	74.58	63.61	65.80	57.78	30.19	42.28
Sr	517.44	106.00	74.00	929.82	88.83	111.28
Ba	358.70	41.00	31.00	323.27	8.46	6.72
V	387.23	223.00	199.00	326.37	34.90	102.64
Ni	90.63	84.00	157.00	55.84	5.26	18.74
Cr	214.13	195.00	295.00	116.74	2.24	42.18
Sc	26.64	34.00	31.00	53.20	15.02	23.74
Y	41.98	13.00	31.00	10.68	23.03	18.48
Rb	10.59	11.50	1.15	11.46	0.41	0.33
Zr	94.31	20.50	44.00	13.06	57.81	45.02
Nb	4.41	0.31	0.81	0.43	1.35	1.09
Cs	0.23	<i>bdl</i>	0.09	0.19	0.02	0.02
Hf	2.88	0.66	1.61	0.46	1.84	1.40
Ta	0.27	0.03	0.07	0.03	0.09	0.07
Pb	0.23	2.08	2.34	0.96	1.85	1.49
Th	0.16	0.17	0.27	0.12	0.70	0.56
U	0.10	0.07	0.16	0.06	0.33	0.24
La	4.39	0.83	1.80	2.39	4.16	3.46
Ce	13.15	2.16	5.34	2.74	9.59	7.87
Pr	2.32	0.36	0.96	0.51	1.48	1.22
Nd	12.56	1.98	5.60	2.76	7.23	5.85
Sm	4.35	0.84	2.29	0.96	2.29	1.84
Eu	1.10	0.36	0.59	0.39	0.73	0.62
Gd	4.94	1.28	3.15	1.09	2.42	1.96
Tb	1.04	0.26	0.66	0.24	0.50	0.40
Dy	6.70	2.04	4.76	1.52	3.43	2.69
Ho	1.55	0.51	1.15	0.37	0.82	0.65
Er	4.18	1.36	3.24	0.99	2.26	1.77
Tm	0.71	0.21	0.51	0.17	0.40	0.31
Yb	4.12	1.49	3.31	1.00	2.46	1.90
Lu	0.60	0.24	0.54	0.15	0.38	0.29

<i>Rock Type</i>	<i>dacitic dyke</i>	<i>dacitic dyke</i>	<i>pillow lava</i>	<i>interb. lava</i>	<i>interb. lava</i>	<i>interb. lava</i>
<i>Sample</i>	<i>AZ06-36</i>	<i>AZ06-31</i>	<i>R06-4</i>	<i>R06-9</i>	<i>R-05-6</i>	<i>R06-45</i>
<i>Ophiolite</i>	<i>Dehshir \$</i>	<i>Dehshir \$</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>
SiO2	71.26	68.36	53.18	47.47	53.70	48.76
Al2O3	10.82	14.20	13.50	17.10	15.80	15.58
MgO	0.10	1.42	2.67	6.11	2.18	5.29
CaO	11.11	1.53	13.09	7.06	8.25	7.89
FeO_t	3.01	4.75	7.42	11.69	5.06	10.40
MnO	0.07	0.11	0.15	0.21	0.08	0.17
TiO2	0.31	0.41	0.74	0.79	0.54	0.78
Na2O	0.23	6.89	4.31	2.99	6.89	3.90
K2O	0.00	0.09	0.61	1.79	0.82	3.07
P2O5	0.03	0.07	0.05	0.03	0.18	0.31
LOI	2.10	1.23	4.44	4.52	5.40	3.63
Total	99.05	99.07	100.16	99.77	98.90	99.76
Mg no.	5.73	34.76	39.09	48.26	43.50	47.55
Sr	320.74	121.26	112.17	148.66	155.84	695.77
Ba	12.76	42.63	30.56	90.18	144.49	2123.93
V	53.69	56.91	323.44	349.44	203.10	233.64
Ni	8.85	3.57	26.24	8.14	5.53	28.26
Cr	26.56	3.64	23.25	1.21	1.90	88.58
Sc	12.58	12.22	26.06	39.83	15.41	24.85
Y	32.02	25.20	16.56	13.19	23.39	18.95
Rb	0.19	0.71	6.37	16.17	8.01	50.33
Zr	73.26	61.79	41.03	21.63	69.29	76.37
Nb	1.97	1.55	0.51	0.32	1.93	3.36
Cs	0.06	0.12	0.14	6.37	0.05	0.38
Hf	2.32	2.00	1.12	0.82	2.07	2.37
Ta	0.12	0.10	0.04	0.03	0.14	0.21
Pb	1.24	1.30	1.27	1.87	3.87	14.47
Th	1.00	0.78	0.17	0.10	2.76	7.20
U	0.36	0.40	0.12	0.09	0.82	1.53
La	6.13	4.74	1.93	1.05	17.97	20.64
Ce	13.38	11.02	5.92	2.89	30.47	39.97
Pr	2.02	1.69	1.03	0.53	3.90	4.91
Nd	9.81	8.32	5.58	3.12	16.20	19.68
Sm	2.94	2.58	1.77	1.31	3.68	4.43
Eu	1.16	0.78	0.67	0.50	1.40	1.52
Gd	3.25	2.77	1.89	1.46	3.84	3.93
Tb	0.71	0.58	0.37	0.30	0.58	0.60
Dy	4.74	3.83	2.82	2.39	3.72	3.77
Ho	1.13	0.91	0.60	0.56	0.86	0.80
Er	3.16	2.55	1.70	1.50	2.14	2.15
Tm	0.56	0.44	0.28	0.26	0.33	0.35
Yb	3.28	2.73	1.58	1.54	2.10	2.10
Lu	0.48	0.41	0.24	0.22	0.36	0.32

<i>Rock Type</i>	<i>diabasic dyke</i>	<i>interb. basalt</i>	<i>interb. basalt</i>	<i>basaltic flow</i>	<i>basaltic flow</i>	<i>andesite flow</i>
<i>Sample</i>	<i>K07-4</i>	<i>R06-24</i>	<i>R06-32</i>	<i>K07-3</i>	<i>K07-2</i>	<i>K07-16</i>
<i>Ophiolite</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>
SiO2	53.30	47.41	50.94	49.90	54.00	54.30
Al2O3	16.12	16.03	14.29	17.72	17.51	18.45
MgO	3.96	9.71	7.49	5.89	4.22	4.74
CaO	8.41	9.23	7.21	9.44	7.55	7.94
FeO_t	10.10	10.55	12.12	10.00	8.62	7.14
MnO	0.15	0.15	0.16	0.18	0.14	0.11
TiO2	0.50	0.64	0.58	0.86	0.81	0.57
Na2O	4.81	2.78	4.10	2.80	3.24	3.66
K2O	0.70	0.60	0.79	1.57	2.82	0.12
P2O5	0.09	0.06	0.02	0.26	0.32	0.21
LOI	2.85	2.46	1.52	1.01	1.87	2.09
Total	100.98	99.62	99.22	99.63	101.10	99.33
Mg no.	41.14	62.12	52.44	51.22	46.59	54.20
Sr	233.45	179.49	178.26	598.34	491.24	321.50
Ba	115.25	100.39	58.36	260.99	594.86	74.01
V	300.28	275.27	356.62	301.23	239.84	190.46
Ni	15.00	35.60	14.20	36.00	19.00	39.00
Cr	9.33	65.50	39.23	59.64	22.26	51.88
Sc	39.80	36.61	49.13	36.10	28.10	22.80
Y	15.95	15.06	9.94	21.37	24.40	11.61
Rb	5.45	5.47	10.24	57.36	112.31	1.79
Zr	37.04	26.76	14.29	85.57	107.72	40.65
Nb	1.07	0.52	0.20	3.43	4.34	1.61
Cs	10.64	0.25	0.18	1.43	2.18	0.13
Hf	1.10	0.91	0.53	2.28	2.84	1.10
Ta	0.08	0.04	0.02	0.23	0.30	0.12
Pb	1.63	3.88	0.80	7.19	13.93	2.15
Th	0.63	0.26	0.08	4.11	5.40	0.63
U	0.19	0.43	0.07	1.34	1.87	0.15
La	2.76	1.87	0.66	16.43	17.63	3.29
Ce	6.00	5.20	2.01	33.53	35.69	7.53
Pr	0.93	0.88	0.38	4.46	4.53	1.12
Nd	4.07	4.61	2.31	18.25	18.88	4.90
Sm	1.19	1.64	0.99	4.02	4.44	1.37
Eu	0.49	0.64	0.43	1.18	1.26	0.56
Gd	1.37	1.80	1.13	3.42	3.91	1.37
Tb	0.30	0.35	0.24	0.58	0.65	0.28
Dy	2.33	2.68	1.98	3.67	3.99	1.75
Ho	0.53	0.61	0.44	0.74	0.87	0.42
Er	1.54	1.68	1.24	1.86	2.22	0.99
Tm	0.26	0.28	0.21	0.33	0.36	0.16
Yb	1.51	1.56	1.21	1.82	2.38	1.05
Lu	0.24	0.23	0.19	0.30	0.35	0.17

<i>Rock Type</i>	<i>interb.andesite</i>	<i>andesitic flow</i>	<i>dacitic lava</i>	<i>dacitic lava</i>	<i>interb. Dacite</i>	<i>rhyolitic dyke</i>
<i>Sample</i>	<i>R06-41</i>	<i>R-05-10A</i>	<i>K07-26</i>	<i>R-05-4</i>	<i>R06-39</i>	<i>R06-26</i>
<i>Ophiolite</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>	<i>ShahrBabak#</i>
SiO2	61.41	53.10	71.00	70.00	69.58	73.69
Al2O3	13.75	16.09	12.29	13.70	12.75	11.87
MgO	2.98	3.28	1.99	1.38	0.96	0.76
CaO	2.81	6.92	1.26	1.11	2.98	1.05
FeOt	9.70	7.49	5.98	5.45	4.66	4.76
MnO	0.24	0.19	0.14	0.13	0.09	0.01
TiO2	0.77	0.81	0.46	0.39	0.54	0.40
Na2O	3.05	4.87	4.75	5.63	5.46	5.98
K2O	1.64	1.24	0.06	0.91	0.41	0.29
P2O5	0.11	0.27	0.19	0.11	0.07	0.07
LOI	3.86	4.06	1.69	1.55	1.43	0.85
Total	100.33	98.33	99.81	100.36	98.93	99.73
Mg#	35.41	43.86	37.24	31.10	26.88	22.12
Sr	409.51	449.43	76.47	144.00	153.87	85.57
Ba	204.62	468.45	81.84	388.00	259.57	70.20
V	174.22	246.45	89.31	7.00	34.47	12.08
Ni	3.63	18.13	6.00	10.00	6.38	0.13
Cr	1.27	30.57	14.65	9.00	11.48	<i>bdl</i>
Sc	30.04	23.31	22.20	19.00	17.03	16.64
Y	34.40	20.63	25.20	50.30	40.25	48.74
Rb	33.22	19.74	0.91	8.41	4.67	3.57
Zr	59.04	66.30	39.79	135.00	107.07	109.15
Nb	0.71	2.27	0.75	2.18	1.62	2.24
Cs	0.82	0.13	0.14	<i>bdl</i>	0.08	0.27
Hf	1.96	1.91	1.38	3.96	3.19	3.96
Ta	0.06	0.14	0.07	0.19	0.12	0.16
Pb	6.66	4.98	5.57	5.99	3.08	1.66
Th	0.32	3.17	0.67	1.40	0.86	1.36
U	0.22	0.51	0.35	0.47	0.43	0.61
La	3.10	17.87	3.42	10.50	7.10	8.41
Ce	8.41	33.45	8.50	23.90	16.09	20.86
Pr	1.50	4.33	1.40	3.75	2.56	3.49
Nd	8.32	17.91	7.41	19.20	12.93	17.11
Sm	3.09	4.00	2.34	6.05	4.00	5.57
Eu	1.07	1.34	0.76	2.24	1.19	1.46
Gd	3.42	3.78	2.54	7.15	4.31	6.15
Tb	0.74	0.58	0.56	1.29	0.90	1.29
Dy	5.31	3.50	3.92	9.13	5.84	9.02
Ho	1.24	0.81	0.94	2.08	1.40	2.00
Er	3.38	1.96	2.43	5.81	3.82	5.74
Tm	0.62	0.32	0.42	0.86	0.67	1.02
Yb	3.61	1.98	2.55	5.68	3.95	5.93
Lu	0.57	0.32	0.40	0.91	0.61	0.89

<i>Rock Type</i>	<i>rhyolitic lava</i>	<i>lava flow</i>	<i>lava flow</i>	<i>basaltic sill</i>	<i>basaltic sill</i>	<i>pillow fragm.</i>
<i>Sample</i>	<i>R-05-2</i>	<i>BT06 - 15</i>	<i>BT06-13</i>	<i>BT07-24</i>	<i>BT07-25</i>	<i>BT06-38</i>
<i>Ophiolite</i>	<i>ShahrBabak#</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>
SiO2	74.27	49.45	53.44	52.70	53.90	60.81
Al2O3	11.98	18.96	13.35	16.66	14.73	15.99
MgO	0.88	4.34	4.05	4.56	5.66	1.28
CaO	1.10	9.02	6.51	9.66	6.92	2.54
FeOt	2.97	6.87	12.68	8.43	10.10	7.85
MnO	0.07	0.14	0.17	0.17	0.12	0.22
TiO2	0.26	0.50	0.89	0.66	0.88	0.67
Na2O	6.61	3.32	3.28	2.19	3.77	8.96
K2O	0.01	1.68	0.26	0.37	0.22	0.38
P2O5	0.05	0.06	0.09	0.15	0.19	0.25
LOI	1.34	4.74	4.82	4.00	2.52	1.22
Total	99.56	99.09	99.52	99.54	99.02	100.16
Mg no.	34.66	52.97	36.27	49.11	49.98	22.59
Sr	29.18	201.62	112.81	161.50	199.65	298.97
Ba	24.72	168.47	47.50	83.05	64.65	56.82
V	16.50	253.79	403.25	313.60	376.48	144.10
Ni	<i>bdl</i>	55.05	11.02	46.00	21.00	6.25
Cr	0.45	138.15	6.77	132.15	26.07	<i>bdl</i>
Sc	11.68	31.79	38.23	38.50	40.90	31.99
Y	46.83	13.08	25.54	20.55	25.03	29.45
Rb	0.47	21.94	3.13	3.78	2.23	2.96
Zr	144.24	26.35	42.60	35.67	55.51	54.24
Nb	1.50	<i>bdl</i>	0.52	0.71	2.59	1.03
Cs	0.01	0.58	0.13	0.21	0.16	0.00
Hf	4.02	0.80	1.53	1.15	1.59	1.72
Ta	0.11	0.02	0.04	0.07	0.19	0.08
Pb	2.60	<i>bdl</i>	3.47	0.85	2.87	1.75
Th	0.95	0.04	0.51	0.53	0.67	0.98
U	0.50	0.11	0.16	0.13	0.19	0.19
La	6.31	1.36	3.13	2.17	5.42	6.49
Ce	16.40	3.44	7.13	5.35	10.31	14.81
Pr	2.76	0.59	1.19	0.92	1.58	2.36
Nd	13.98	3.19	6.32	4.59	7.99	12.01
Sm	4.63	1.30	2.27	1.62	2.59	3.48
Eu	1.20	0.47	0.80	0.60	0.83	1.27
Gd	5.26	1.66	2.67	1.69	2.74	4.06
Tb	1.00	0.28	0.57	0.40	0.55	0.70
Dy	7.09	1.99	4.32	3.05	3.88	4.64
Ho	1.68	0.52	0.97	0.72	0.91	1.06
Er	4.45	1.35	2.83	1.98	2.44	2.94
Tm	0.72	0.24	0.48	0.33	0.38	0.49
Yb	4.92	1.41	2.89	2.01	2.21	3.04
Lu	0.82	0.22	0.43	0.32	0.37	0.43

<i>Rock Type</i>	<i>pillow lava</i>	<i>pillow lava</i>	<i>diabasic dyke</i>	<i>diabasic dyke</i>	<i>diabasic dyke</i>	<i>diabasic dyke</i>
<i>Sample</i>	<i>BT07-2</i>	<i>BT07-4</i>	<i>BT05-10</i>	<i>BT07-7</i>	<i>BT07-12</i>	<i>BT05-2A</i>
<i>Ophiolite</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>	<i>Baft#</i>
SiO2	49.40	49.30	40.30	40.60	51.50	52.70
Al2O3	15.29	16.23	11.10	14.99	16.86	15.90
MgO	4.26	4.61	5.06	4.34	6.57	5.67
CaO	9.46	7.28	27.20	24.34	7.97	8.70
FeOt	7.62	10.50	7.75	9.15	10.20	6.99
MnO	0.13	0.13	0.13	0.14	0.19	0.11
TiO2	1.92	2.37	0.50	0.59	0.56	0.78
Na2O	5.35	5.21	1.64	0.05	1.57	5.12
K2O	0.19	0.32	0.05	<i>bdl</i>	1.05	0.29
P2O5	0.34	0.44	0.08	0.15	0.12	0.16
LOI	4.70	3.30	5.21	4.63	2.50	2.37
Total	98.66	99.68	99.02	98.97	99.08	98.82
Mg no.	49.92	43.91	53.79	45.81	53.45	59.12
Sr	276.07	225.17	183.00	38.53	138.30	176.00
Ba	70.34	80.41	33.00	6.08	193.20	27.00
V	182.39	311.47	237.00	321.90	298.78	220.00
Ni	106.00	63.00	37.00	24.00	17.00	36.00
Cr	296.32	76.11	105.00	42.61	32.70	23.00
Sc	28.40	31.90	32.00	33.10	40.20	32.00
Y	25.30	35.53	15.00	16.32	13.45	21.00
Rb	2.88	5.25	1.62	0.08	18.25	2.57
Zr	127.57	171.37	26.00	37.01	20.33	72.00
Nb	17.43	29.01	0.64	1.54	0.76	6.35
Cs	0.19	0.14	0.52	0.05	0.77	0.02
Hf	3.28	4.62	0.87	1.06	0.69	1.84
Ta	1.12	1.91	0.04	0.12	0.08	0.47
Pb	1.25	1.60	3.64	0.46	0.84	1.69
Th	1.66	2.78	0.07	0.60	0.35	1.10
U	0.58	0.90	0.03	0.20	0.07	0.36
La	13.90	22.35	1.80	3.12	0.90	6.42
Ce	29.65	46.51	5.17	6.95	2.35	13.90
Pr	3.93	5.89	0.84	1.07	0.41	1.85
Nd	17.41	25.36	4.48	4.77	2.38	8.51
Sm	4.76	6.07	1.46	1.49	0.92	2.31
Eu	1.49	1.99	0.55	0.57	0.41	0.83
Gd	4.10	5.49	1.87	1.53	1.16	2.77
Tb	0.77	1.05	0.35	0.34	0.27	0.50
Dy	4.74	6.40	2.42	2.40	1.96	3.38
Ho	0.95	1.33	0.57	0.57	0.49	0.78
Er	2.33	3.30	1.60	1.49	1.26	2.15
Tm	0.35	0.49	0.24	0.26	0.20	0.35
Yb	1.98	2.67	1.56	1.58	1.33	2.09
Lu	0.29	0.40	0.24	0.24	0.20	0.35

Rock Type	iso.gabbro	iso.gabbro	gabbro dyke
Sample	BT05-5	BT06-33	BT05-6
Ophiolite	Baft#	Baft#	Baft#
SiO2	50.60	52.38	45.60
Al2O3	15.10	14.49	10.40
MgO	7.59	7.05	12.70
CaO	9.04	8.78	16.50
FeOt	8.92	10.64	8.66
MnO	0.14	0.17	0.15
TiO2	0.64	0.77	0.55
Na2O	3.66	3.71	0.05
K2O	0.24	0.52	0.05
P2O5	0.12	0.12	0.09
LOI	3.40	1.88	4.05
Total	99.41	100.50	98.63
Mg no.	60.27	54.15	72.33
Sr	454.00	360.81	19.00
Ba	35.00	73.16	7.00
V	225.00	266.45	224.00
Ni	64.00	71.26	70.00
Cr	123.00	202.66	350.00
Sc	37.00	35.52	46.00
Y	15.70	19.10	14.00
Rb	2.69	10.38	0.74
Zr	45.00	39.83	40.00
Nb	3.81	1.32	2.11
Cs	<i>bdl</i>	0.48	0.02
Hf	1.16	1.31	1.15
Ta	0.26	0.08	0.36
Pb	1.62	0.67	3.95
Th	0.63	0.64	0.52
U	0.13	0.17	0.13
La	4.90	4.17	3.42
Ce	10.20	9.84	7.88
Pr	1.39	1.43	1.18
Nd	6.22	7.05	5.50
Sm	1.82	2.18	1.63
Eu	0.62	0.74	0.77
Gd	2.17	2.32	2.05
Tb	0.37	0.47	0.35
Dy	2.71	3.34	2.60
Ho	0.59	0.75	0.59
Er	1.56	2.12	1.51
Tm	0.25	0.35	0.25
Yb	1.63	2.06	1.53
Lu	0.27	0.30	0.25

Abbreviations: *bdl*: below detection limit; *nd*: Not determined.

\$ = data from Shafaii Moghadam, Stern & Rahgoshay (2010); # = data from H. Shafaii Moghadam (unpub. Ph.D. thesis, Shahid Beheshti University, Tehran, 2009). All above data has been obtained at the Centre de Geochimie de la Surface, Strasbourg (France) (see below for analytical methods).

* = Major and trace element analyses were carried out using ICP-MS and ICP-AES at the Centre de Geochimie de la Surface, Strasbourg (France). For these analyses, fusion method using one blank solution (750 mg lithium tetraborate) and 4 international standards of CRPG Nancy including AN-G, BE-N, GS-N and VS-N were used for calibration, using reference values following Govindaradju (1995). For analyses using ICP-AES, the relative precision is $\pm 10\%$, while ICP-MS analyses have a precision of $\pm 5\%$.

§ = Major and trace element analyses were carried out using ICP-MS and ICP-AES at ACME Lab (Canada). Total abundances of the major oxides and several minor elements are reported on a 0.2g sample analyzed by ICP-emission spectrometry following a lithium metaborate/tetraborate fusion and dilute nitric digestion. Rare earth and refractory elements are determined by ICP mass spectrometry following a lithium metaborate / tetraborate fusion and nitric acid digestion of a 0.2g sample.

For the Neyriz ophiolite we used data from M. R. Jannessary, unpub. Ph.D. thesis, l'Université de Louis Pasteur, Strasbourg, France (2003) and therefore there are not data for Neyriz ophiolite in this table.

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