

Sample	H89-194	EB8351	CD6	Tr-22	CD12	BB83-12
Age, Ma	36.8	36.5		27.2		31.8
Long W	104 22	102 56.7	105 24.4	104 01.1	105 23.9	103 29
Lat N	29 59	29 42	31 53.7	29 22	31 53.8	29 16
SiO2	62.01	60.40	60.15	62.12	60.58	62.52
TiO2	1.08	0.09	0.17	0.63	0.15	1.49
Al2O3	17.34	18.00	18.67	18.18	19.01	15.07
Fe2O3	2.34	5.09	5.48		5.08	6.91
FeO	2.16	0.20				
FeO*				4.92		
MnO	0.15	0.21	0.03	0.15	0.10	0.06
MgO	1.65	0.17	0.30	0.19	0.31	2.23
CaO	3.22	0.70	1.28	1.84	1.23	3.91
Na2O	5.44	7.02	5.41	6.71	5.47	3.92
K2O	4.21	5.51	5.25	5.14	5.40	3.99
P2O5	0.38	0.06	0.14	0.12	0.12	0.44
H2O+						
H2O-						
CO2		0.10				
Total	100	97.45	96.88	100	97.45	100.54
SiO2'	62.01	62.04	62.09	62.12	62.17	62.18
(Na2O+K2O)'	9.65	12.87	11.00	11.85	11.15	7.87
Sc			3.3	4.78	2.84	14.63
V				51.1		
Cr			2	1.45	2	9.82
Ni			26	13.6	18	
Cu						
Zn			224		185	88
Ga						
Rb		210	189	112	178	123
Sr		30	185	152	156	379
Y			46	52	46	40.25
Zr		1170	1420	676	1263	478
Nb				135		22.02*
Cs			4.16	1.37	3.63	11.61
Ba			248	1230	275	933
La			157	94	121	51.6
Ce			209	172	235	106
Pr						
Nd			82.18	69	68.96	54.54
Sm			14.51	12.1	12.82	9.64
Eu			0.67	2.76	0.76	2.58
Gd						
Tb			2.52	2.28	2.17	1.29
Dy						
Ho						
Er						
Tm						
Yb			6.14	5.84	5.76	3.59
Lu			0.87	0.71	0.83	0.51

Hf			35.45	17.8	32.9	9.48
Ta			9.62	4.3	10.35	2.3
Pb						
Th			33.45	10.9	26.69	12.09
U			14.33	1.53	6.1	2.67
Li						
F						
Rb/Sr		7	1.02	0.74	1.14	0.32
Cen/Ybn			9.2	7.96	11.03	7.98
Eu*			0.13	0.65	0.17	0.83
Zr/Hf			40.1	38	38.4	50.4
Ba/Rb			1.31	11	1.54	7.59
Rb/Th			5.65	10.3	6.67	10.2
87Sr/86Sr,l		0.70578				
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	81-97D	89207	SP903	MM1	PP358	EM906
Age, Ma						
Long W	104 21	104 21	103 14.5	105 26.9	103 46	103 31.7
Lat N	30 6.1	30 41	29 52.2	31 52.8	30 19	30 0.2
SiO2	61.74	58.69	61.50	59.39	61.05	60.10
TiO2	1.23	0.26	0.49	0.09	0.25	0.38
Al2O3	15.63	17.56	17.20	16.77	17.79	17.45
Fe2O3	2.47	4.58	3.97	5.83	3.17	4.19
FeO	3.69	0.15	1.17		1.60	0.99
FeO*						
MnO	0.12	0.40	0.19	0.01	0.32	0.15
MgO	1.77	0.22	0.50	1.76	0.35	0.29
CaO	3.76	0.84	1.59	1.12	1.36	0.81
Na2O	4.11	6.94	6.37	5.13	7.06	6.16
K2O	4.23	4.64	5.59	5.03	4.98	5.91
P2O5	0.52	0.03	0.17	0.22	0.11	0.11
H2O+	1.00	2.87	0.26		1.14	1.26
H2O-		1.01	0.18		0.04	0.41
CO2	0.03	0.03			0.02	0.08
Total	100.29	98.18	99.18	95.35	99.21	98.23
SiO2'	62.20	62.26	62.28	62.29	62.29	62.29
(Na2O+K2O)'	8.40	12.28	12.11	10.66	12.28	12.51
Sc		1	6.2	1.99	23	15.1
V		73	37		64	42
Cr				3		
Ni				11		
Cu		21	12		12	20
Zn		253	112	240	176	101
Ga						
Rb	101	303	130	246	95	78
Sr	467	52	74	89	69	21
Y	38	129	53	38	46	47
Zr	398	1999	864	1845	759	721
Nb	52	540	138		116	106
Cs		4.5	1.6	8.78	1.8	1.5
Ba	1160	13	523	2525	379	65
La				176		
Ce				312		
Pr						
Nd				86.22		
Sm				15.49		
Eu				0.48		
Gd						
Tb				1.83		
Dy						
Ho						
Er						
Tm						
Yb				7.32		
Lu				0.94		

Hf		72	17	42.87	17	15
Ta		26	9.3	10.3	7.1	5.4
Pb						
Th		48	16	44	9.4	10
U		11	1.6	10.91	2.1	3.1
Li		72	29		15	20
F						
Rb/Sr	0.22	5.83	1.76	2.76	1.38	3.71
Cen/Ybn				11.52		
Eu*				0.1		
Zr/Hf		27.8	50.8	43	44.6	48.1
Ba/Rb	11.5	0.04	4.02	10.3	3.99	0.83
Rb/Th		6.31	8.13	5.59	10.1	7.8
$^{87}\text{Sr}/^{86}\text{Sr}_i$						
$^{143}\text{Nd}/^{144}\text{Nd}$						
$^{206}\text{Pb}/^{204}\text{Pb}$						
$^{207}\text{Pb}/^{204}\text{Pb}$						
$^{208}\text{Pb}/^{204}\text{Pb}$						

Sample	SP901	H81-82	CD4	P-3	PP-158	Gor-1a
Age, Ma						36
Long W	103 14.5	104 20.2	105 24.1	103 15	103 46	103 52
Lat N	29 52.2	30 6.3	31 53.5	29 53	30 19	30 27
SiO2	61.14	62.01	60.82	61.82	61.26	60.84
TiO2	0.50	1.25	0.16	0.48	0.25	1.21
Al2O3	17.10	15.47	18.70	17.69	18.02	16.59
Fe2O3	3.88	2.81	4.92	4.15	4.50	5.02
FeO	1.18	3.52		0.83	0.56	0.52
FeO*						
MnO	0.18	0.12	0.14	0.16	0.30	0.08
MgO	0.47	1.84	0.10	0.42	0.31	0.58
CaO	1.34	3.68	1.56	1.20	1.11	2.42
Na2O	6.45	4.06	5.89	6.49	6.76	5.29
K2O	5.72	4.22	5.15	5.70	5.00	4.28
P2O5	0.18	0.53	0.13	0.21	0.13	0.59
H2O+	0.15	1.33		0.62	1.31	1.31
H2O-	0.03			0.14	0.12	0.43
CO2	0.01	0.02			0.05	0.04
Total	98.32	100.86	97.57	99.89	99.63	99.2
SiO2'	62.31	62.32	62.33	62.36	62.41	62.45
(Na2O+K2O)'	12.40	8.32	11.31	12.30	11.98	9.82
Sc	6.1		3.29			
V	43					
Cr			3			
Ni			14			
Cu	10			12	6	
Zn	96		182	98	142	85
Ga						
Rb	124	107	161	145	102	137
Sr	74	447	154	81	50	421
Y	47	43	46	60	60	83
Zr	881	395	1174	1574	773	802
Nb	129	68		157	98	64*
Cs	2		2.97	1.6	2.7	
Ba	537	1030	204			
La			116			
Ce			216			
Pr						
Nd			70.08			
Sm			12.15			
Eu			0.83			
Gd						
Tb			2.06			
Dy						
Ho						
Er						
Tm						
Yb			5.28			
Lu			0.74			

Hf	15		29.86	17	17	
Ta	7.4		8.51	9.5	6.3	
Pb						
Th	14		22.37	14	7.7	
U	0.9		9.01	1.9	1.3	
Li	23					
F						
Rb/Sr	1.68	0.24	1.05	1.79	2.04	0.33
Cen/Ybn			11.06			
Eu*			0.2			
Zr/Hf	58.7		39.3	92.6*	45.5	
Ba/Rb	4.33	9.63	1.27			
Rb/Th	8.86		7.2	10.4	13.2	
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	Mil-2	Ht-1	Ht-2	QM-142	MH14	H81-172
Age, Ma				32.1		
Long W	105 30	103 15	103 15	105 30	103 05	104 22
Lat N	31 52	29 53	29 53	31 10.5	29 17	30 6
SiO2	60.80	62.20	62.36	62.59	62.59	62.66
TiO2	0.13	0.37	0.37	1.09	0.58	1.18
Al2O3	17.25	17.08	17.21	16.86	15.95	16.20
Fe2O3	3.72	3.67		2.41	1.22	4.70
FeO	1.44	1.79	1.80	2.55	5.04	1.59
FeO*						
MnO	0.25	0.23	0.23	0.10	0.21	0.10
MgO	0.15	0.30	0.30	1.37		1.25
CaO	1.43	1.17	1.19	2.97	2.34	3.34
Na2O	7.25	7.04	7.07	4.87	5.09	4.46
K2O	5.15	5.50	5.50	4.91	6.65	4.05
P2O5	0.05	0.15	0.15	0.28	0.22	0.49
H2O+	1.01	0.66	0.61			
H2O-	0.21	0.12	0.12			
CO2	0.35		0.02			
Total	98.84	100.28	100.43	100	99.89	100
SiO2'	62.51	62.51	62.56	62.59	62.66	62.66
(Na2O+K2O)'	12.75	12.60	12.61	9.78	11.75	8.51
Sc	1.6			3.8	19.85	
V				45		
Cr				5.9	2.68	
Ni				1		
Cu		11	9	10		
Zn	225	123	125	60	126	
Ga						
Rb	212	142	143	139	93	
Sr	56	48	11	307	67	
Y	63	58	61	51	46	
Zr	1509	819	837	520	799	
Nb	269	195	175	49	29*	
Cs	3.8	2	2.2	1.6	1.4	
Ba				797	672	
La				40.8		
Ce				91.8		
Pr						
Nd				49.3		
Sm				4		
Eu				4.9		
Gd						
Tb				4.9		
Dy						
Ho				3.4		
Er						
Tm						
Yb				4.6		
Lu				2.3		

Hf	36	18	18	3	14.43	
Ta	19	10	13	4.9	3.03	
Pb						
Th	36	15	19		9.97	
U	11	3.4	4.9			
Li				10		
F				150		
Rb/Sr	3.79	2.96	13	0.45	1.39	
Cen/Ybn				5.39		
Eu*				1.38		
Zr/Hf	41.9	44.5	46.5	173.3*	55.4	
Ba/Rb				5.73	7.23	
Rb/Th	5.89	9.47	7.53		9.33	
⁸⁷ Sr/ ⁸⁶ Sr _l						
¹⁴³ Nd/ ¹⁴⁴ Nd						
²⁰⁶ Pb/ ²⁰⁴ Pb						
²⁰⁷ Pb/ ²⁰⁴ Pb						
²⁰⁸ Pb/ ²⁰⁴ Pb						

Sample	85202	89208	H81-71	BM904	CD-6'	MV11FG
Age, Ma						34
Long W	104 20	104 21	104 19	103 26.6	105 24	105 25.9
Lat N	30 40	30 41	30 4.5	29 53.7	31 54	31 52.6
SiO2	61.70	59.63	62.81	60.54	60.80	59.12
TiO2	0.44	0.28	1.41	0.13	0.17	0.74
Al2O3	17.30	17.81	16.44	16.65	17.80	15.86
Fe2O3		4.09	2.91	3.55	4.78	4.89
FeO		0.48	3.03	1.29	0.20	
FeO*	4.17					
MnO	0.27	0.17	0.19	0.34	0.10	0.06
MgO	0.30	0.35	0.65	0.33	0.14	1.83
CaO	1.11	0.98	2.84	0.59	0.85	1.83
Na2O	7.27	6.69	4.68	8.46	6.98	3.68
K2O	5.77	4.65	4.37	4.40	4.78	5.61
P2O5	0.11	0.03	0.67	0.02	0.09	0.38
H2O+		3.01			1.24	
H2O-		1.32		0.07	0.64	
CO2		0.07		0.13	0.54	
Total	98.44	99.48	100	96.51	99.11	94.00
SiO2'	62.68	62.72	62.81	62.86	62.88	62.89
(Na2O+K2O)'	13.25	11.93	9.05	13.35	12.16	9.88
Sc		0.9		0.9		2.61
V		70		70		83
Cr						1
Ni						11
Cu		10		29		
Zn		253		409	119	77
Ga						
Rb	168	317		352	166	78
Sr	161	14		14	182	268
Y		137		162	56	28
Zr	716	2130		2033	1448	313
Nb	221	577		556	113*	3*
Cs		2.8		5.9		0.37
Ba	43	12		20		1047
La				330.4		51.25
Ce				376.1		113
Pr						
Nd				169.8		52.44
Sm				25		10.43
Eu				2.16		3.01
Gd				20.26		
Tb						1.91
Dy				20.23		
Ho						
Er				12.74		
Tm						
Yb				12.47		3.43
Lu				1.97		0.46

Hf		26		51		6.26
Ta		17		38		2.87
Pb				51		
Th		32		71		5.26
U		4.4		21		2.62
Li		54		96		
F				420		
Rb/Sr	1.04	22.6		25.1	0.91	0.29
Cen/Ybn				8.15		8.91
Eu*				0.28		0.83
Zr/Hf		81.9*		39.9		50
Ba/Rb	0.26	0.04		0.06		13.4
Rb/Th		9.91		4.96		14.8
$^{87}\text{Sr}/^{86}\text{Sr}_i$						
$^{143}\text{Nd}/^{144}\text{Nd}$				0.512547		
$^{206}\text{Pb}/^{204}\text{Pb}$				18.188		
$^{207}\text{Pb}/^{204}\text{Pb}$				15.539		
$^{208}\text{Pb}/^{204}\text{Pb}$				37.946		

Sample	MM2	GSL-71	PP312	GSL-94	81-97c
Age, Ma			36.3		
Long W	105 26.9	103 16.6	103 46	103 15.8	104 21
Lat N	31 52.8	29 19.8	30 17	29 20.1	30 06
SiO2	59.76	61.27	62.45	61.26	62.44
TiO2	0.11	0.69	1.27	0.67	1.14
Al2O3	17.21	15.48	15.58	15.07	15.77
Fe2O3	5.50	1.11		1.19	4.57
FeO		4.59		4.93	1.24
FeO*			6.30		
MnO	0.004	0.15	0.12	0.17	0.12
MgO	2.24	0.73	1.01	0.65	1.21
CaO	1.25	3.01	2.25	2.49	3.54
Na2O	3.80	4.58	5.03	5.20	4.37
K2O	4.89	5.45	4.57	5.44	4.24
P2O5	0.24	0.25	0.59	0.22	0.48
H2O+					0.35
H2O-					
CO2					0.25
Total	95.00	97.31	99.17	97.29	99.72
SiO2'	62.91	62.96	62.97	62.97	62.99
(Na2O+K2O)'	9.15	10.31	9.68	10.94	8.69
Sc	2.16	12.2		11	
V					
Cr	4	2.76		2.06	
Ni	15	7		6	
Cu					
Zn	214	135		142	
Ga					
Rb	234	101	96	93	113
Sr	73	198	278	181	464
Y	38	26	51	30	38
Zr	1571	518	562	472	380
Nb		21*	69	28*	34*
Cs	4.6	1.94		1.35	
Ba	2194	2750	1184	2253	1090
La	157	102			
Ce	274	122		120	
Pr					
Nd	73.2	57.9	67.8	53.4	
Sm	13.41	10.9	12.8	11.8	
Eu	0.49	3.9		3.13	
Gd					
Tb	1.63	1.69		1.56	
Dy					
Ho					
Er					
Tm					
Yb	6.37	4.58		3.95	
Lu	0.86	0.64		0.58	

Hf	38.91	11.33		11.2	
Ta	7.92	3.42		4.9	
Pb			9.3		
Th	38.68	10.77	14.1	9.82	
U	6.89	4.82	3.25	2.56	
Li					
F					
Rb/Sr	3.21	0.51	0.35	0.51	0.24
Cen/Ybn	11.63	7.2		8.21	
Eu*	0.12	1.07		0.82	
Zr/Hf	40.4	45.7		42.1	
Ba/Rb	9.38	27.2	12.3	24.2	9.65
Rb/Th	6.05	9.38	6.81	9.47	
87Sr/86Sr,l			0.70418		
143Nd/144Nd			0.512559		
206Pb/204Pb			18.262		
207Pb/204Pb			15.532		
208Pb/204Pb			38.367		