

AVERAGE MODAL MINERAL COMPOSITIONS OF TONALITE
 FROM THE SAN JOSÉ PLUTON AND THE INDIVIDUAL TEXTURAL UNITS

Murray-JD-1978

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Name of Unit	Gneissose Border Tonalite		Stubby Hornblende Tonalite		Prismatic Hornblende Tonalite		Seriatic Porphyritic Tonalite		Pluton
	Average	σ	Average	σ	Average	σ	Average	σ	Average ^a
# of Analyses	4		7		6		8		25
Quartz	22.71	2.61	15.58	2.09	16.64	5.43	16.36	2.29	16.27
Plagioclase	55.58	1.91	61.13	2.31	62.36	2.43	63.82	2.11	62.11
K-feldspar	0.98	0.96	0.13	0.05	0.37	0.32	0.21	0.07	0.26
Hornblende	6.07	1.59	12.69	1.22	10.72	4.78	10.09	2.13	11.27
Biotite	10.02	0.93	6.21	0.91	5.29	1.91	4.95	1.05	5.61
Opaque	0.48	0.16	1.36	0.32	1.18	0.29	1.37	0.18	1.27
Sphene	0.88	0.20	0.22	0.14	0.44	0.17	0.25	0.13	0.34
Epidote	1.13	1.00	0.57	0.27	0.45	0.29	0.18	0.08	0.45
Apatite	0.13	0.06	0.23	0.11	0.19	0.04	0.26	0.07	0.22
Chlorite	0.19	0.14	0.56	0.10	0.60	0.31	0.66	0.18	0.59
Pale Amph ^b +Cpx	0.00	--	0.10	0.09	0.00	--	0.004	0.01	0.04
White Mica + Clay ^c	1.79	0.47	1.17	0.64	1.72	0.58	1.82	1.04	1.54
Other	0.04	0.04	0.04	0.03	0.04	0.03	0.04	0.03	0.04
TOTAL	100.00	--	99.99	--	100.00	--	100.01	--	100.01
Color Index (CI)	18.77	1.78	21.71	1.77	18.68	3.55	17.50	1.53	19.57
Pl+Alteration	57.37	1.53	62.30	2.19	64.08	2.33	65.64	1.40	63.65
(Amph+Cpx)/(Bio+Chl)	0.59		1.89		1.82		1.80		1.82
(Pl+Alt)/Hb	9.45		4.91		5.98		6.51		5.65
Q/(Q+Kf+(Pl+Alt))	0.280		0.200		0.205		0.199		0.203
Kf/(Q+Kf+(Pl+Alt))	0.012		0.002		0.005		0.003		0.003
Q/(Q+CI+(Pl+Alt))	0.230		0.162		0.163		0.167		0.164
CI/(Q+CI+(Pl+Alt))	0.190		0.216		0.185		0.173		0.194

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a: Calculated from the average for each textural unit weighted in proportion to the outcrop area underlain by that unit.

b: Pale amphibole includes cummingtonitic and actinolitic amphibole.

c: Mostly alteration of plagioclase; includes some fine-grained unidentified alteration.