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Comparison of calcite + dolomite thermometry and carbonate + silicate equilibria: Constraints on the conditions of metamorphism of the Llano uplift, central Texas, U.S.A.

Cherith M. R. Letargo, William M. Lamb, Jong-Sim Park

For deposit: Tables 2 through 7

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TABLE 2. Amphibole analyses.

OXIDES	81-LL-11+	83-LL-142	83-LL-143+	83-LL-192	83-LL-236+	83-LL-312+	83-LL-514+	88-CM-4c	90-DM-11	90-DM-27	91-DM-19	92-LG-5	92-LG-8
SiO ₂	56.85	57.94	58.78	57.70	57.67	54.35	56.22	58.40	56.99	57.75	53.63	50.19	49.97
TiO ₂	0.06	<0.05	0.10	<0.05	<0.05	0.09	0.15	<0.05	0.10	<0.05	0.07	0.28	0.25
Al ₂ O ₃	1.35	7.84	0.64	1.10	0.16	3.30	0.96	0.20	2.41	0.92	3.65	6.72	6.40
Fe ₂ O ₃ *	0.56	0.47	0.34	0.00	0.04	0.00	0.24	0.36	0.00	0.00	0.36	0.23	0.43
MgO	24.37	21.10	24.18	24.07	24.80	23.46	24.51	24.80	22.09	23.12	23.72	23.09	23.24
CaO	13.86	13.33	13.25	13.72	13.42	12.87	13.39	14.20	13.85	13.86	13.32	13.19	13.32
FeO*	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Na ₂ O	0.00	0.84	0.00	0.20	0.08	0.68	0.09	0.00	0.56	0.39	0.00	0.14	0.00
K ₂ O	0.37	0.46	0.39	0.18	0.08	2.90	0.52	0.16	0.35	0.37	1.51	2.62	2.36
F	0.12	<0.08	<0.08	<0.08	<0.08	0.10	<0.08	<0.08	<0.08	0.13	0.12	0.40	0.79
Cl	0.23	0.22	0.30	0.46	0.24	0.41	0.11	0.66	0.17	0.56	0.79	1.27	1.68
H ₂ O	na**	na	na	<0.05	na	na	na	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
total	2.09	2.14	2.04	1.98	2.03	2.01	2.17	1.89	2.09	1.90	1.78	1.53	1.33
-O=F+Cl	99.92	100.03	100.02	99.41	98.52	100.17	98.36	100.67	98.61	99.00	98.95	99.66	99.85
total	-0.10	-0.06	-0.13	-0.19	-0.10	-0.17	-0.05	-0.28	-0.07	-0.24	-0.33	-0.54	-0.71
	99.82	99.97	99.89	99.22	98.42	100.00	98.31	100.39	98.54	98.76	98.62	99.12	99.15

Formulae normalized to 13 cations	
Si	7.756
AlIV	0.218
Fe ³⁺	0.057
AlVI	0.000
Ti	0.006
Mg	4.957
Fe ²⁺	0.007
Mn	0.000
Ca	2.026
Na	0.000
Ni ^A	0.098
K ^A	0.020
OH	1.901
F	0.099
Cl	na
X _{Mg} ***	0.986

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*FeO and Fe₂O₃ are recalculated from total FeO based on charge balance and stoichiometry (see text).
 **na=not analyzed
 ***X_{Mg}=Mg/(Mg+Fe³⁺+Fe²⁺+Al VI+Ti+Mn)
 +Data from Park (1986)