Table DR1. Mineral chemistry used in geothermobarometry calculations

Sample	434446	434446	434454
Mineral	Grt-32	Grt-38	Grt-16
SiO_2	40.30	40.72	39.78
TiO_2	0.07	0.02	0.1066
Al_2O_3	22.46	22.42	22.27
FeO	14.34	17.31	18.57
MnO	0.29	0.36	0.4102
MgO	10.29	11.71	5.34
CaO	12.67	7.84	14.77
Total (wt%)	100.43	100.38	101.24
Si	2.993	3.021	3.007
Ti	0.004	0.001	0.0061
Al	1.966	1.960	1.9838
Fe	0.891	1.074	1.174
Mn	0.018	0.023	0.0263
Mg	1.140	1.295	0.6015
Ca	1.008	0.623	1.1965
Total cations	8.020	7.998	7.9952
Garnet is normalized to 12 cations.			
PYR	0.37	0.43	0.20
ALM	0.29	0.36	0.39
SPE	0.01	0.01	0.01
GRO	0.33	0.21	0.40
Fe/(Fe + Mg)	0.44	0.45	0.66

	434446	434446	434454
	Omp-4	Omp-9	Omp-14
SiO_2	55.41	55.67	54.01
TiO_2	0.15	0.22	0.37
Al_2O_3	12.59	11.53	12.17
FeO	2.99	3.33	4.98
MnO	0.01	0.03	0.04
MgO	8.77	9.33	8.55
CaO	14.45	15.02	16.31
Na_2O	6.21	5.61	4.67
K_2O	0.01	0.02	0.02
Cr_2O_3	0.08	0.04	0.02
Total (wt%)	100.67	100.79	101.14
Si	1.950	1.961	1.9167
Al	0.522	0.479	0.509
Ti	0.004	0.006	0.010
Cr	0.002	0.001	0.001
Mg	0.460	0.490	0.452
Fe	0.088	0.098	0.148
Mn	0.000	0.001	0.001
Ca	0.545	0.567	0.620
Na	0.423	0.383	0.321
K	0.001	0.001	0.001
Total cations	3.996	3.986	3.980
Omphacite is normalized to 6 cations.			

	434446	434446	434454
	Phn-15	Phn-16	Phn-23
SiO_2	48.80	48.81	46.52
TiO_2	0.74	0.68	1.89
Al_2O_3	29.50	28.74	29.87
FeO	1.03	1.01	1.63
MnO	0.01	0.01	0.00
MgO	3.32	3.55	1.95
CaO	0.01	0.03	0.03
Na_2O	0.29	0.37	0.34
K_2O	10.59	10.75	10.17
Cr_2O_3	0.05	0.08	0.05
Total (wt%)	94.34	94.02	92.44
Si	6.555	6.590	6.402
Ti	0.075	0.069	0.196
Al	4.670	4.574	4.845
Fe	0.116	0.114	0.188
Mn	0.001	0.001	0.000
Mg	0.666	0.715	0.400
Ca	0.002	0.005	0.004
Na	0.076	0.096	0.091
K	1.815	1.852	1.786
Cr	0.005	0.008	0.005
Total cations	13.980	14.023	13.916
Phengite is normalized to 22 cations.			