

Table 6. Results of the experimental runs on the basaltic andesite composition

Conditions of the run			Phases present	Esti- mated % of glass	R.I. garnet ( $\pm 0.01$ )	Comments and estimated relative proportions of crystal phases present.
Pres- sure (kb)	Tempe- rature ( $^{\circ}$ C)	Time (mins)				
9	1,200	60	cpx plag	glass	75	Medium grainsize; plag $\gg$ cpx.
9	1,220	60	cpx plag	glass	90	Common plagioclase, rare clinopyroxene, well crystallized; plag $\gg$ cpx.
9	1,240	60		glass	100	Above liquidus run.
18	1,200	60	cpx plag ga qz ore		—	Sub-solidus run, fine grained, estimate cpx > plag $\gg$ qz > ga > ore.
18	1,250	60	cpx plag ga	glass	60	Clinopyroxene crystals small, plagioclase and garnet crystals large; cpx $\gg$ plag $\gg$ ga.
18	1,280	60	cpx	glass	90	Common clinopyroxene; estimate 10% cpx.
18	1,300	50	cpx	glass	95	Minor clinopyroxene, estimate 5% cpx.
27	1,250	60	cpx ga qz		—	Sub-solidus run, fine grained; cpx $\gg$ ga, qz.
27	1,300	55	cpx ga qz		—	1.765 Sub-solidus run, medium grained; cpx $\gg$ ga, qz.
27	1,330	45	cpx ga	glass	60	1.765 Medium grained clinopyroxene and garnet; cpx $\gg$ ga.
27	1,360	40	cpx ga q-px	glass	80	1.765 Well-crystallized, some minute needles of quench pyroxene; cpx > ga.
27	1,380	35	cpx ga	glass	90	1.755 Well-crystallized; cpx > ga.
27	1,390	35	cpx ga	glass	95	Well-crystallized, but uncommon crystals; ga > cpx.
27	1,400	30		glass	100	Above liquidus run.
36	1,380	40	cpx ga qz		—	1.76 Sub-solidus run, medium grained; cpx $\gg$ ga > qz.
36	1,440	20	cpx ga q-px	glass	?	1.755 Abundant primary and quench pyroxene, common garnet (15% approx.)
36	1,460	20	cpx ga q-px	glass	?	1.75 Abundant primary and quench pyroxene, common garnet (12% approx.).
36	1,475	15	cpx ga q-px	glass	?	1.75 Rare primary clinopyroxene (difficult to identify because of abundant quench-pyroxene), common garnet (6% approx.).

Table 7. Results of the experimental runs on the andesite (quartz diorite) composition

Conditions of the run				Phases present	Estimated % of glass	R.I. garnet ( $\pm 0.01$ )	Comments and estimated relative proportions of crystal phases present
Pressure (kb)	Temperature ( $^{\circ}$ C)	Time (mins)	Dry or Wet <sup>a</sup> (D or W)				
18	1,000	240	W	cpx plag ga qz	—		Sub-solidus run, fine grained except for medium sized garnet crystals; plag > qz > cpx $\gg$ ga.
18	1,220	60	D	cpx plag ga qz glass	60		Medium grained; plag $\gg$ cpx > qz > ga.
18	1,260	60	D	plag ga glass	85		Common well crystallized plagioclase, rare large garnets; plag $\gg$ ga.
18	1,275	60	D		100		Above-liquidus run.
22.5	1,000	240	D	cpx plag ga qz	—		Sub-solidus run, fine grained; qz > cpx > pl $\gg$ ga.
22.5	1,300	60	D	cpx ga glass	95	1.77	Well-crystallized; ga > cpx.
27	1,000	240	W	cpx felds ga qz	—		Sub-solidus run, fine grained except for medium sized garnet crystals; qz, cpx $\gg$ ga > felds.
27	1,000	240	D	cpx felds ga qz			Indistinguishable from above wet run at same P—T conditions.
27	1,150	60	D	cpx felds ga qz			Fine grained pyroxene and low R.I. phase; medium grained garnet; qz, cpx > ga > felds.
27	1,240	60	D	cpx plag ga qz	—		Probable near-solidus run, medium grainsize; qz, plag > cpx, ga.
27	1,280	60	D	cpx plag ga qz glass	20		Medium grainsize, similar to above run except qz, plag proportion slightly smaller relative to cpx, ga but qz, plag > cpx, ga in this run also.
27	1,320	60	D	cpx ga qz glass	60	1.765	Well crystallized; cpx $\gg$ ga $\gg$ qz.
27	1,340	60	D	ga glass	95	1.765	Uncommon, very well crystallized garnet.
31.5	1,000	240	W	cpx felds ga qz			Sub-solidus run, fine grained except for medium grained garnet; qz > cpx > ga $\gg$ felds
36	1,340	30	D	cpx felds ga qz ?glass	?		Uncertain solidus run, may be very minor melting, medium grained; qz > cpx > ga $\gg$ felds.
36	1,400	30	D	cpx ga qz glass	40	1.765	Well crystallized; cpx $\gg$ ga $\gg$ qz.
36	1,420	20	D	cpx ga glass	90	1.765	Large garnet crystals, small pyroxene crystals; ga $\gg$ cpx.
36	1,440	15	D	ga glass	95	1.76	Large garnet crystals, uncommon.

<sup>a</sup> In these wet runs no water added to mix, dried pyrophyllite spacer used.