

A6. THESIS RUN TABLE

Table A6.1. Run thermal histories of samples discussed in text. Temperature uncertainty = ± 5 °C. Air = compressed air flow from building. None = stagnant ambient air. CO = carbon monoxide. AG1 = Alphagaz1.

	Gas Flow	Initial Temp	Initial Hold (hrs)	Cooling (°C/hr)	Intermediate Temp	Intermediate Hold (hrs)	Cooling (°C/hr)	Final Temp	Final Hold (hrs)
<u>CMAS2 suite (~1500 ppm Ba spike) dynamic crystallization experiments</u>									
2-1-6	Air	1425	2	2	1380	24	2	1330	25
2-2-6	Air	1425	2	2	1380	24	2	1330	25
2-3-6	Air	1425	2	2	1380	24	2	1330	25
2-4-9	Air	1435	2	2	1400	24	2	1330	38
2-5-9	Air	1435	2	2	1400	24	2	1330	38
2-6-8	Air	1435	2	2	1400	24	2	1330	38
2-7-7	Air	1435	2	2	1400	24	2	1330	38
<u>CMAS2b suite (~4500 ppm Ba spike) starting compositions</u>									
2b-1-1	Air	1430	1	-	-	-	-	-	-
2b-2-1	Air	1430	1	-	-	-	-	-	-
2b-3-1	Air	1430	1	-	-	-	-	-	-
2b-4-1	Air	1430	1	-	-	-	-	-	-
2b-5-1	Air	1430	1	-	-	-	-	-	-
2b-6-1	Air	1430	1	-	-	-	-	-	-
<u>CMAS2b suite dynamic crystallization experiments</u>									
2b-1-2	Air	1415	1	2	1380	24	2	1330	28
2b-2-2	Air	1415	1	2	1380	24	2	1330	28
2b-3-2	Air	1415	1	2	1380	24	2	1330	28
2b-4-2	Air	1415	1	2	1380	24	2	1330	28
2b-5-2	Air	1415	1	2	1380	24	2	1330	28
2b-6-2	Air	1415	1	2	1380	24	2	1330	28
2b-7-2	Air	1415	1	2	1380	24	2	1330	28
<u>Samples quenched at intermediate time points during controlled cooling thermal history</u>									
2b-1-3	Air	1415	1	2	1380	-	-	-	-
2b-1-4	Air	1415	1	2	1380	24	-	-	-
2b-1-5	Air	1415	1	2	1380	24	2	1330	-
2b-4-3	Air	1415	1	2	1380	-	-	-	-
2b-4-4	Air	1415	1	2	1380	24	-	-	-
2b-4-5	Air	1415	1	2	1380	24	2	1330	-
2b-7-3	Air	1415	1	2	1380	-	-	-	-
2b-7-4	Air	1415	1	2	1380	24	-	-	-
2b-7-5	Air	1415	1	2	1380	24	2	1330	-

	Gas Flow	Initial Temp	Initial Hold (hrs)	Cooling (°C/hr)	Intermediate Temp	Intermediate Hold (hrs)	Cooling (°C/hr)	Final Temp	Final Hold (hrs)
<u>Rapid cooling experiments</u>									
2b-1-7	Air	1405	1	20	-	-	-	1330	-
2b-4-7	Air	1405	1	20	-	-	-	1330	-
2b-7-9	Air	1420	1	20	-	-	-	1330	-
<u>CAI (CMAS_{Ti})</u>									
224SAM1	None	1375	4	-	-	-	-	-	-
224SAM21	Air	1385	2	2	1345	24	2	1285	86
<u>CMAS1 (SiO₂ ranging from ~40-60 wt. %) starting compositions</u>									
1-1-1	None	1450	1	1000	-	-	-	1400	22
1-2-1	None	1450	1	1000	-	-	-	1400	22
1-3-1	None	1450	1	1000	-	-	-	1400	22
1-4-1	None	1450	1	1000	-	-	-	1400	22
1-5-1	None	1450	1	1000	-	-	-	1400	22
1-6-1	None	1450	1	1000	-	-	-	1400	22
<u>CMAS1 dynamic crystallization experiments</u>									
1-1-2	None	1415	2	2	1370	24	2	1320	90
1-2-2	None	1415	2	2	1370	24	2	1320	90
1-3-9	None	1430	2	2	1385	24	2	1325	24
1-4-11	None	1425	2	2	1385	24	2	1330	16
1-5-9	None	1440	2	2	1400	24	2	1330	26
1-6-8	None	1440	2	2	1400	24	2	1330	26
<u>Pb and Bi volatility tests</u>									
1-1-7	None	1415	2.0	2	1375	24	2	1325	13
1-1-8	None	1415	0.25	-	-	-	-	-	-
1-1-10	CO	1410	2.0	2	-	-	-	1360	21
<u>Additional Na contamination tests</u>									
1-1-9	None	1445	0.25	-	-	-	-	-	-
1-2-5	None	1445	0.25	-	-	-	-	-	-
1-3-2	None	1415	2	2	1370	24	2	1320	90
1-3-11	None	1445	0.25	-	-	-	-	-	-
1-3-2	None	1415	2	2	1370	24	2	1320	90
1-4-5	None	1415	3	-	-	-	-	-	-
1-4-10	None	1445	0.2	-	-	-	-	-	-
1-5-2	None	1415	2	2	1370	24	2	1320	90
1-5-4	None	1410	3	-	-	-	-	-	-
1-5-10	None	1445	0.2	-	-	-	-	-	-
1-6-2	None	1415	2	2	1370	24	2	1320	90
1-6-5	None	1415	3	-	-	-	-	-	-
1-6-9	None	1445	0.2	-	-	-	-	-	-

	Gas Flow	Initial Temp	Initial Hold (hrs)	Cooling (°C/hr)	Intermediate Temp	Intermediate Hold (hrs)	Cooling (°C/hr)	Final Temp	Final Hold (hrs)
<u>CL intensity experiments</u>									
224SAM-Eu	Ar	1405	1	2	1375	24	2	1320	24
CMAS2-2-Ti	None	1420	1	2	1375	24	2	1350	-
CMAS2-2-Eu	None	1420	1	2	1375	24	2	1350	-
CMAS2-2-Mn	Ar	1405	1	2	1375	24	2	1320	24
CMAS2-2-Ge	Ar	1405	1	2	1375	24	2	1320	24
<u>²²⁶Ra partitioning experiment</u>									
2b-1*-FUSE	AG1	1450	1.5	-	-	-	-	-	-
2b-1*-1 (Ra-free)	Air	1415	2	2	1375	24	2	1310	55
2b-1*-Ra	AG1	1410	1	2	~1380	24	2	~1330	30