Table S1f: Step-degassing Ne analyses of Pit 17 quartz samples

Sample name	Aliquot	Aliquot weight (g)	Heating temperature (deg C)	Heating time (hr)	Total ^{20}Ne released[1] (10^9 atoms)	Total ^{21}Ne released[2] (10^6 atoms)	Total ^{22}Ne released[3] (10^6 atoms)	^{21}Ne / ^{20}Ne[4] (10^{-3})	^{22}Ne / ^{20}Ne[4] (10^{-3})	Cosmogenic ^{21}Ne[5] This heating step (10^6 atoms g^{-1})	Cosmogenic ^{21}Ne as % of ^{21}Ne released in this heating step	Percent of total cosmogenic ^{21}Ne released in this step	Total cosmogenic ^{21}Ne (10^6 atoms g^{-1})
MC-PIT17-0-0	a	0.1434	400	0.25	2.393 +/- 0.036	8.716 +/- 0.235	247.918 +/- 4.802	3.643 +/- 0.076	101.7 +/- 1.4	11.45 +/- 1.28	19	22	52.2 +/- 2.6
			850	0.25	6.649 +/- 0.085	24.804 +/- 0.532	684.812 +/- 14.105	3.761 +/- 0.045	99.4 +/- 0.8	37.33 +/- 2.15	22	72	
			1100	0.2	0.439 +/- 0.012	1.793 +/- 0.071	49.163 +/- 2.094	4.073 +/- 0.183	106.3 +/- 4.7	3.42 +/- 0.57	27	7	
	b	0.1454	400	0.25	1.843 +/- 0.011	6.670 +/- 0.171	187.279 +/- 1.835	3.585 +/- 0.083	100.8 +/- 1.0	7.96 +/- 1.05	17	17	47.2 +/- 2.3
			850	0.25	7.025 +/- 0.047	26.137 +/- 0.419	714.277 +/- 4.584	3.700 +/- 0.042	101.4 +/- 0.4	35.92 +/- 2.04	20	76	
			1100	0.2	0.471 +/- 0.010	1.865 +/- 0.065	51.054 +/- 1.161	3.983 +/- 0.153	108.5 +/- 3.2	3.33 +/- 0.50	26	7	
MC-PIT17-0-5	a	0.1618	400	0.25	1.672 +/- 0.028	8.791 +/- 0.207	-[6]	5.259 +/- 0.096	-[6]	23.85 +/- 1.08	44	28	86.1 +/- 2.4
			850	0.25	5.386 +/- 0.072	25.042 +/- 0.528	-[6]	4.688 +/- 0.056	-[6]	57.78 +/- 2.03	37	67	
			1100	0.2	0.698 +/- 0.015	2.803 +/- 0.11	78.547 +/- 3.046	4.000 +/- 0.162	106.6 +/- 3.9	4.51 +/- 0.71	26	5	
	b	0.1482	400	0.25	1.616 +/- 0.011	7.932 +/- 0.223	169.555 +/- 1.454	4.860 +/- 0.126	104.0 +/- 1.0	20.81 +/- 1.39	39	25	84.0 +/- 2.7
			850	0.25	4.965 +/- 0.036	23.736 +/- 0.405	513.306 +/- 3.445	4.753 +/- 0.062	103.1 +/- 0.6	60.31 +/- 2.13	38	72	
			1100	0.2	0.527 +/- 0.010	1.977 +/- 0.11	56.321 +/- 1.283	3.771 +/- 0.217	106.9 +/- 3.1	2.90 +/- 0.78	22	3	
	c	0.1476	400	0.25	1.663 +/- 0.015	8.276 +/- 0.201	177.637 +/- 1.739	4.987 +/- 0.113	106.0 +/- 1.3	22.92 +/- 1.30	41	28	80.8 +/- 2.4
			850	0.25	5.180 +/- 0.032	23.156 +/- 0.35	521.730 +/- 4.988	4.503 +/- 0.052	100.2 +/- 0.9	54.37 +/- 1.85	35	67	
			1100	0.2	1.137 +/- 0.011	3.851 +/- 0.132	121.776 +/- 1.493	3.406 +/- 0.114	106.1 +/- 1.4	3.46 +/- 0.88	13	4	
MC-PIT17-13-18	a	0.1496	400	0.25	0.514 +/- 0.015	5.853 +/- 0.184	58.309 +/- 2.028	11.391 +/- 0.408	111.2 +/- 4.5	29.06 +/- 1.27	74	33	88.3 +/- 2.1
			850	0.25	2.343 +/- 0.033	15.181 +/- 0.324	257.767 +/- 5.680	6.493 +/- 0.090	105.6 +/- 1.3	55.56 +/- 1.62	55	63	
			1100	0.2	0.315 +/- 0.011	1.474 +/- 0.072	33.319 +/- 2.101	4.666 +/- 0.269	100.3 +/- 6.8	3.64 +/- 0.53	37	4	
	b	0.1514	400	0.25	0.484 +/- 0.008	5.155 +/- 0.157	55.704 +/- 1.135	10.542 +/- 0.342	114.4 +/- 2.9	24.68 +/- 1.05	72	31	79.9 +/- 1.9
			850	0.25	2.456 +/- 0.019	15.299 +/- 0.278	258.460 +/- 2.179	6.192 +/- 0.088	105.0 +/- 0.8	52.64 +/- 1.50	52	66	
			1100	0.2	0.331 +/- 0.010	1.363 +/- 0.07	33.651 +/- 0.919	4.142 +/- 0.240	101.9 +/- 4.0	2.55 +/- 0.50	28	3	
	c	0.1443	400	0.25	0.477 +/- 0.008	5.491 +/- 0.175	54.793 +/- 1.270	11.524 +/- 0.387	113.9 +/- 3.1	28.37 +/- 1.23	75	34	83.2 +/- 2.3
			850	0.25	2.398 +/- 0.015	14.445 +/- 0.296	246.434 +/- 2.435	6.066 +/- 0.109	102.1 +/- 0.9	51.83 +/- 1.85	52	62	
			1100	0.2	0.236 +/- 0.010	1.131 +/- 0.056	26.629 +/- 1.048	4.815 +/- 0.303	111.7 +/- 6.3	3.01 +/- 0.44	38	4	
MC-PIT17-28-32	a	0.1456	400	0.25	0.470 +/- 0.014	5.373 +/- 0.145	53.383 +/- 2.125	11.445 +/- 0.379	111.2 +/- 5.0	27.45 +/- 1.04	74	32	85.6 +/- 2.2
			850	0.25	2.046 +/- 0.030	14.014 +/- 0.335	224.123 +/- 5.343	6.864 +/- 0.121	105.0 +/- 1.6	55.09 +/- 1.89	57	64	
			1100	0.2	0.265 +/- 0.012	1.225 +/- 0.083	26.163 +/- 1.976	4.601 +/- 0.362	93.4 +/- 7.8	3.04 +/- 0.62	36	4	
	b	0.1524	400	0.25	0.519 +/- 0.010	5.309 +/- 0.117	58.984 +/- 1.352	10.124 +/- 0.261	113.0 +/- 3.2	24.85 +/- 0.79	71	32	78.3 +/- 2.0
			850	0.25	2.286 +/- 0.018	14.551 +/- 0.308	239.198 +/- 2.142	6.325 +/- 0.113	104.4 +/- 0.9	50.68 +/- 1.75	53	65	
			1100	0.2	0.203 +/- 0.009	1.025 +/- 0.065	24.494 +/- 0.966	5.058 +/- 0.385	120.5 +/- 7.1	2.78 +/- 0.46	41	4	
	c	0.1311	400	0.25	0.484 +/- 0.010	5.031 +/- 0.158	53.751 +/- 1.132	10.426 +/- 0.365	110.3 +/- 3.1	27.57 +/- 1.23	72	37	75.5 +/- 2.4
			850	0.25	2.118 +/- 0.019	12.296 +/- 0.269	225.954 +/- 2.808	5.847 +/- 0.120	106.0 +/- 1.4	46.83 +/- 2.00	50	62	
			1100	0.2	0.135 +/- 0.007	0.543 +/- 0.054	15.180 +/- 0.798	4.023 +/- 0.443	111.0 +/- 7.8	1.09 +/- 0.44	26	1	
MC-PIT17-42-45	a	0.1382	400	0.25	0.315 +/- 0.013	4.766 +/- 0.144	36.347 +/- 2.072	15.147 +/- 0.702	112.8 +/- 7.6	27.84 +/- 1.08	81	35	79.4 +/- 2.1
			850	0.25	1.577 +/- 0.025	11.422 +/- 0.268	-[6]	7.236 +/- 0.129	-[6]	48.98 +/- 1.67	59	62	
			1100	0.2	0.153 +/- 0.012	0.810 +/- 0.065	18.281 +/- 1.899	5.266 +/- 0.584	112.9 +/- 14.5	2.59 +/- 0.54	44	3	
	c	0.1495	400	0.25	0.251 +/- 0.012	4.809 +/- 0.121	32.734 +/- 0.988	19.219 +/- 1.040	129.7 +/- 7.4	27.30 +/- 0.85	85	34	79.6 +/- 1.6
			850	0.25	1.752 +/- 0.013	12.398 +/- 0.201	186.269 +/- 1.942	7.125 +/- 0.096	105.6 +/- 1.1	49.01 +/- 1.19	59	62	
			1100	0.2	0.216 +/- 0.010	1.133 +/- 0.072	24.528 +/- 0.961	5.248 +/- 0.400	112.3 +/- 6.5	3.32 +/- 0.52	44	4	

[1] Computed by comparison to ^{20}Ne signal in air pipettes. 1-sigma uncertainty includes measurement uncertainty of ^{20}Ne signal in this analysis and the reproducibility of the air pipette signal

[2] Computed by comparison to ^{21}Ne signal in air pipettes. 1-sigma uncertainty includes measurement uncertainty of ^{21}Ne signal in this analysis and the reproducibility of the air pipette signal

[3] Computed by comparison to ^{22}Ne signal in air pipettes. 1-sigma uncertainty includes measurement uncertainty of ^{21}Ne signal in this analysis and the reproducibility of the air pipette signal

[4] Isotope ratio measured internally during each analysis: does not involve normalization to the Ne isotope signals in the air pipettes.

[5] Computed by comparison of ^{20}Ne or ^{21}Ne signal to air pipettes, whichever is more precise. Assumes that Ne in sample is a binary mixture of atmospheric and cosmogenic Ne.

[6] No measurement on mass 22 due to peak-centering error.