

CRONUS-A quartz standard. Complete step-degassing results. May-August 2010 measurement cycle.

Sample name	Aliquot	Aliquot weight (g)	Heating temperature (deg C)	Heating time (hr)	Total ^{20}Ne released ² (10^6 atoms)	Total ^{21}Ne released ³ (10^6 atoms)	$^{21}\text{Ne} / ^{20}\text{Ne}^4$ (10^{-3})	$^{22}\text{Ne} / ^{20}\text{Ne}^4$ (10^{-3})	Cosmogenic $^{21}\text{Ne}^5$ 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})
A-STD-1	c	0.135	390	0.2	1.0744 +/- 0.0228	19.765 +/- 0.485	18.376 +/- 0.34	118.4 +/- 2.2	123.31 +/- 3.64	84	37	335.3 +/- 7.1
			780	0.2	1.45 +/- 0.0286	31.131 +/- 0.789	21.472 +/- 0.407	123.2 +/- 2	199.58 +/- 5.89	87	60	
			1140	0.2	0.2339 +/- 0.0536	2.359 +/- 0.091	10.112 +/- 2.342	109.6 +/- 25.6	12.39 +/- 1.36	71	4	
A-STD-1	d	0.1373	390	0.2	1.4189 +/- 0.0367	26.168 +/- 0.653	18.422 +/- 0.445	120.4 +/- 2.9	160.6 +/- 4.84	84	48	336.2 +/- 6.7
			780	0.2	1.4146 +/- 0.0288	27.149 +/- 0.612	19.194 +/- 0.304	121.7 +/- 2.1	167.87 +/- 4.52	85	50	
			1140	0.2	0.1679 +/- 0.0114	1.551 +/- 0.093	9.262 +/- 0.822	130.6 +/- 11.3	7.71 +/- 0.72	68	2	
A-STD-1	e	0.1053	390	0.2	0.5434 +/- 0.0199	17.499 +/- 0.499	31.854 +/- 1.126	135.7 +/- 5	151.48 +/- 4.79	91	46	332.6 +/- 7.1
			780	0.2	1.1201 +/- 0.0244	21.926 +/- 0.629	19.319 +/- 0.332	120.2 +/- 1.7	174.67 +/- 5.21	84	53	
			1140	0.2	0.1334 +/- 0.013	1.073 +/- 0.075	7.94 +/- 0.916	101.5 +/- 12.9	6.47 +/- 0.8	63	2	
A-STD-1	f	0.0938	390	0.2	0.3063 +/- 0.0141	12.635 +/- 0.35	41.063 +/- 1.952	154.5 +/- 8.1	125.51 +/- 3.77	93	37	339.0 +/- 6.9
			780	0.2	1.0348 +/- 0.0217	22.213 +/- 0.525	21.466 +/- 0.431	126 +/- 2.9	204.93 +/- 5.66	87	60	
			1140	0.2	0.1355 +/- 0.017	1.203 +/- 0.092	8.883 +/- 1.29	100.2 +/- 15.3	8.59 +/- 1.12	67	3	
A-STD-1	g	0.1278	390	0.2	1.153 +/- 0.021	21.948 +/- 0.433	18.933 +/- 0.409	118.2 +/- 2.8	145.58 +/- 3.43	85	43	340.8 +/- 5.2
			780	0.2	1.264 +/- 0.013	27.051 +/- 0.515	21.241 +/- 0.332	123.9 +/- 1.8	181.48 +/- 3.79	86	53	
			1140	0.2	0.1984 +/- 0.0097	2.333 +/- 0.105	11.629 +/- 0.753	118 +/- 11	13.71 +/- 0.85	75	4	
A-STD-1	h	0.0959	390	0.2	0.2123 +/- 0.011	15.762 +/- 0.403	74.257 +/- 4.018	181.6 +/- 12	158.39 +/- 4.23	96	47	338.0 +/- 6.5
			780	0.2	1.0244 +/- 0.0133	19.369 +/- 0.502	18.918 +/- 0.404	118 +/- 2.6	171.1 +/- 4.86	85	51	
			1140	0.2	0.102 +/- 0.0103	1.114 +/- 0.073	10.907 +/- 1.295	124.6 +/- 19.5	8.5 +/- 0.83	73	3	
A-STD-1	i	0.0534	390	0.17	0.1035 +/- 0.013	7.835 +/- 0.23	75.255 +/- 9.638	185 +/- 29.6	141.52 +/- 4.38	96	40	353.8 +/- 7.4
			740	0.17	0.5588 +/- 0.0147	12.522 +/- 0.299	22.247 +/- 0.733	121.3 +/- 4.6	204.28 +/- 5.68	87	58	
			1140	0.17	0.0923 +/- 0.0104	0.697 +/- 0.08	7.475 +/- 1.196	98.5 +/- 19.2	7.97 +/- 1.61	61	2	
A-STD-1	j	0.04	390	0.2	0.4052 +/- 0.0128	7.67 +/- 0.254	18.829 +/- 0.791	118.5 +/- 6	162.37 +/- 6.44	85	49	330.1 +/- 9.6
			780	0.2	0.4371 +/- 0.0126	7.675 +/- 0.267	17.466 +/- 0.721	114.8 +/- 5.1	160.14 +/- 6.76	83	49	
			1140	0.2	0.097 +/- 0.0117	0.589 +/- 0.077	6.051 +/- 1.07	118.9 +/- 22.2	7.58 +/- 2.12	51	2	
A-STD-1	k	0.1539	390	0.2	0.3648 +/- 0.0125	28.929 +/- 0.61	78.81 +/- 2.838	189.1 +/- 8.8	181.63 +/- 3.98	97	53	339.7 +/- 5.7
			780	0.2	1.4809 +/- 0.0187	28.002 +/- 0.668	18.852 +/- 0.371	117.6 +/- 2.3	153.5 +/- 4.07	84	45	
			1140	0.2	0.1234 +/- 0.0115	1.066 +/- 0.075	8.595 +/- 0.988	99.6 +/- 15.4	4.57 +/- 0.54	66	1	
A-STD-1	l	0.1598	390	0.2	0.4426 +/- 0.0145	31.565 +/- 0.746	71.14 +/- 2.298	169.7 +/- 6.8	190.03 +/- 4.69	96	56	339.1 +/- 6.3
			780	0.2	1.5241 +/- 0.0462	27.363 +/- 0.661	17.985 +/- 0.553	119.1 +/- 3.7	143.54 +/- 4.24	84	42	
			1170	0.2	0.1378 +/- 0.0116	1.286 +/- 0.072	9.357 +/- 0.924	111.7 +/- 14.9	5.52 +/- 0.5	69	2	
A-STD-1	m	0.1553	390	0.2	0.6625 +/- 0.0255	23.232 +/- 0.513	35.036 +/- 1.363	138.1 +/- 5.9	137.48 +/- 3.35	92	41	338.3 +/- 4.8
			780	0.2	1.7829 +/- 0.0227	34.07 +/- 0.641	19.103 +/- 0.204	119 +/- 1.4	186.03 +/- 3.34	85	55	
			1170	0.2	0.227 +/- 0.0113	2.955 +/- 0.144	13.024 +/- 0.872	124.6 +/- 9.9	14.76 +/- 0.95	78	4	
A-STD-1	n	0.0829	390	0.2	0.4108 +/- 0.0125	14.934 +/- 0.391	36.511 +/- 1.341	141.8 +/- 5.8	166.09 +/- 4.76	92	50	335.0 +/- 6.5
			780	0.2	0.9214 +/- 0.0104	16.04 +/- 0.374	17.415 +/- 0.348	117.8 +/- 2.3	161.27 +/- 4.29	83	48	
			1170	0.2	0.0977 +/- 0.013	0.922 +/- 0.083	9.369 +/- 1.492	128.2 +/- 22	7.66 +/- 1.1	69	2	
A-STD-1	o	0.1423	390	0.2	0.3667 +/- 0.0223	20.077 +/- 0.573	54.943 +/- 3.183	169 +/- 10.2	133.96 +/- 4.07	95	39	340.4 +/- 7.4
			780	0.2	1.6861 +/- 0.0425	32.813 +/- 0.902	19.513 +/- 0.296	120.3 +/- 2.1	196.87 +/- 6.09	85	58	
			1170	0.2	0.1922 +/- 0.0117	1.929 +/- 0.104	10.08 +/- 0.745	105.3 +/- 10.5	9.59 +/- 0.77	71	3	

Notes:

² 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

³ 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

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

⁵ Analyses where cosmogenic ^{21}Ne was not distinguishable from zero at 1 sigma are not shown. Cosmogenic ^{21}Ne concentrations were calculated by normalization to either the ^{20}Ne or ^{21}Ne signal in the air pipettes, depending on which method yielded better precision.