

Complete step-degassing results -- 04-KV-PIT19 Ne-21 measurements. Analyzed May-August 2010.

Sample name	Aliquot	Aliquot weight (g)	Heating temperature (deg C)	Heating time (hr)	Total $^{20}\text{Ne}$ released <sup>2</sup> ( $10^9$ atoms)	Total $^{21}\text{Ne}$ released <sup>3</sup> ( $10^9$ 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 $\text{g}^{-1}$ )	Cosmogenic $^{21}\text{Ne}$ as % of $^{21}\text{Ne}$ released in this heating step	Percent of total cosmogenic $^{21}\text{Ne}$ released in this step	Total cosmogenic $^{21}\text{Ne}$ ( $10^6$ atoms $\text{g}^{-1}$ )
PIT19-0-2	a	0.176	390	0.2	1.099 +/- 0.026	6.286 +/- 0.256	5.659 +/- 0.205	103.5 +/- 2.5	16.91 +/- 1.35	47	26	65.9 +/- 2.7
			780	0.2	3.353 +/- 0.068	18.056 +/- 0.571	5.313 +/- 0.107	101.7 +/- 0.7	45.02 +/- 2.25	44	68	
			1140	0.2	0.553 +/- 0.018	2.369 +/- 0.135	4.231 +/- 0.241	108.6 +/- 3.5	4.01 +/- 0.77	30	6	
	b	0.1747	390	0.2	0.928 +/- 0.010	6.568 +/- 0.197	6.997 +/- 0.202	108.6 +/- 2.5	21.54 +/- 1.10	57	35	61.5 +/- 2.1
			780	0.2	3.068 +/- 0.022	15.604 +/- 0.344	5.050 +/- 0.092	101.1 +/- 1.1	36.85 +/- 1.64	41	60	
			1140	0.2	0.500 +/- 0.012	2.048 +/- 0.114	4.044 +/- 0.237	107.6 +/- 4.6	3.12 +/- 0.68	27	5	
PIT19-7-10	a	0.1624	390	0.2	0.931 +/- 0.028	4.861 +/- 0.175	5.165 +/- 0.184	104.8 +/- 3.5	12.69 +/- 1.12	42	21	59.1 +/- 2.7
			780	0.2	3.410 +/- 0.073	16.938 +/- 0.545	4.901 +/- 0.106	103.2 +/- 1.2	40.94 +/- 2.39	39	69	
			1140	0.2	0.590 +/- 0.017	2.655 +/- 0.128	4.448 +/- 0.199	105.7 +/- 3.3	5.42 +/- 0.74	33	9	
	b	0.1569	390	0.2	1.297 +/- 0.013	7.095 +/- 0.184	5.409 +/- 0.134	103.8 +/- 2.1	20.34 +/- 1.13	45	31	66.4 +/- 2.6
			780	0.2	3.076 +/- 0.025	15.548 +/- 0.395	5.019 +/- 0.113	102.6 +/- 1.3	40.54 +/- 2.25	41	61	
			1140	0.2	0.539 +/- 0.009	2.480 +/- 0.092	4.546 +/- 0.169	110.8 +/- 3.4	5.47 +/- 0.59	35	8	
PIT19-20-25	a	0.1509	390	0.2	0.837 +/- 0.028	4.452 +/- 0.158	5.260 +/- 0.202	106.8 +/- 3.7	13.14 +/- 1.19	45	23	56.2 +/- 2.4
			780	0.2	2.951 +/- 0.062	14.891 +/- 0.444	4.980 +/- 0.087	103.9 +/- 0.9	39.67 +/- 1.90	40	71	
			1140	0.2	0.508 +/- 0.016	2.039 +/- 0.113	3.968 +/- 0.214	107.1 +/- 3.6	3.41 +/- 0.73	25	6	
	b	0.1666	390	0.2	1.214 +/- 0.013	6.377 +/- 0.226	5.196 +/- 0.180	102.7 +/- 2.1	16.36 +/- 1.33	43	28	59.2 +/- 2.4
			780	0.2	3.392 +/- 0.021	16.877 +/- 0.38	4.915 +/- 0.091	101.4 +/- 0.8	39.97 +/- 1.88	39	67	
			1140	0.2	0.557 +/- 0.010	2.156 +/- 0.12	3.825 +/- 0.216	102.9 +/- 3.5	2.91 +/- 0.73	22	5	
PIT19-29-33	a	0.1598	390	0.2	1.071 +/- 0.030	4.973 +/- 0.188	4.591 +/- 0.165	103.3 +/- 2.8	10.98 +/- 1.15	35	21	51.9 +/- 4.1
			780	0.2	3.091 +/- 0.069	15.146 +/- 0.633	4.837 +/- 0.169	104.8 +/- 1.7	36.45 +/- 3.37	38	70	
			1140	0.2	0.540 +/- 0.018	2.337 +/- 0.32	4.272 +/- 0.584	100.6 +/- 3.7	4.46 +/- 1.99	30	9	
	b	0.1678	390	0.2	1.552 +/- 0.016	7.718 +/- 0.25	4.905 +/- 0.153	104.9 +/- 1.6	18.07 +/- 1.44	39	34	53.2 +/- 2.7
			780	0.2	3.095 +/- 0.021	14.184 +/- 0.403	4.527 +/- 0.116	102.3 +/- 1.3	29.02 +/- 2.15	34	55	
			1140	0.2	0.497 +/- 0.008	2.513 +/- 0.13	5.001 +/- 0.260	111.4 +/- 3.6	6.06 +/- 0.78	40	11	
c	0.1812	780	0.2	4.126 +/- 0.037	21.346 +/- 0.443	5.199 +/- 0.085	102.8 +/- 1.3	51.19 +/- 2.00	43	92	55.8 +/- 2.2	
		1140	0.2	0.757 +/- 0.017	3.071 +/- 0.138	4.076 +/- 0.193	105.3 +/- 3.1	4.60 +/- 0.81	27	8		
PIT19-40-42	a	0.1621	390	0.2	0.753 +/- 0.025	3.927 +/- 0.164	5.161 +/- 0.227	104.5 +/- 3.6	10.26 +/- 1.11	42	22	45.8 +/- 2.0
			780	0.2	2.579 +/- 0.056	12.907 +/- 0.384	4.940 +/- 0.089	102.4 +/- 0.9	31.63 +/- 1.57	40	69	
			1140	0.2	0.465 +/- 0.015	2.029 +/- 0.11	4.310 +/- 0.233	105.3 +/- 4.5	3.89 +/- 0.68	31	8	
	b	0.1572	390	0.2	0.447 +/- 0.014	3.007 +/- 0.159	6.744 +/- 0.393	106.7 +/- 5.2	10.76 +/- 1.05	56	22	48.5 +/- 2.7
			780	0.2	2.438 +/- 0.029	11.847 +/- 0.344	4.861 +/- 0.119	103.5 +/- 1.5	29.62 +/- 1.88	39	61	
			1140	0.2	0.500 +/- 0.016	2.747 +/- 0.249	5.488 +/- 0.517	112.3 +/- 5.9	8.10 +/- 1.62	46	17	
PIT19-52-55	a	0.1623	390	0.2	0.519 +/- 0.023	3.458 +/- 0.149	6.593 +/- 0.356	106.4 +/- 5.2	11.90 +/- 1.01	56	33	35.6 +/- 2.0
			780	0.2	2.346 +/- 0.054	10.445 +/- 0.353	4.393 +/- 0.112	101.0 +/- 1.3	20.81 +/- 1.69	32	59	
			1140	0.2	0.406 +/- 0.012	1.681 +/- 0.088	4.088 +/- 0.204	103.4 +/- 3.3	2.84 +/- 0.52	27	8	
	b	0.1546	390	0.2	0.458 +/- 0.011	3.507 +/- 0.145	7.665 +/- 0.331	106.6 +/- 4.5	13.96 +/- 0.96	62	36	38.8 +/- 2.1
			780	0.2	2.356 +/- 0.017	10.225 +/- 0.323	4.342 +/- 0.112	103.6 +/- 1.1	21.16 +/- 1.73	32	55	
			1140	0.2	0.329 +/- 0.006	1.537 +/- 0.109	4.673 +/- 0.331	110.9 +/- 6.0	3.66 +/- 0.71	37	9	

Notes:

<sup>2</sup> Computed by comparison to <sup>20</sup>Ne signal in air pipettes. 1-sigma uncertainty includes measurement uncertainty of <sup>20</sup>Ne signal in this analysis and the reproducibility of the air pipette signal

<sup>3</sup> Computed by comparison to <sup>21</sup>Ne signal in air pipettes. 1-sigma uncertainty includes measurement uncertainty of <sup>21</sup>Ne signal in this analysis and the reproducibility of the air pipette signal

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

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