

S2 Table. LA-ICP-MS data of glass standards in comparison with published values

Major and minor elements [wt %]

	Li ₂ O	B ₂ O ₃	Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	P ₂ O ₅	Cl	K ₂ O	CaO	TiO ₂	V ₂ O ₅	MnO	Fe ₂ O ₃	CoO	NiO	CuO	Rb ₂ O	SrO	ZrO ₂	SnO ₂	Sb ₂ O ₃	BaO	PbO	Bi
Corning A (n=12)	0.01	0.20	13.79	2.57	0.94	67.00	0.11	0.13	2.84	5.66	0.75	0.01	1.02	1.12	0.17	0.02	1.17	0.01	0.10	0.01	0.17	1.62	0.46	0.06	0.001
relative σ [%]	2.40	2.74	1.61	2.00	2.85	0.50	5.26	2.18	2.23	0.72	2.10	1.69	1.12	1.28	0.98	0.60	0.75	0.82	0.74	3.44	1.13	2.65	1.09	1.32	0.740
Vicenzi [1]	0.01	0.20	14.30	2.66	1.00	66.56	0.13	0.10	2.87	5.03	0.79	0.01	1.00	1.09	0.17	0.02	1.17	0.01	0.10	0.01	0.19	1.58	0.56	0.073 ^[4]	0.00
accuracy [%]	-6.78	-1.00	3.55	3.56	6.17	-0.66	11.86	-25.46	1.01	-12.47	5.08	-8.74	-2.45	-2.62	0.64	-13.45	0.41	4.10	-3.99	-7.82	12.22	-2.76	18.16	16.21	13.550
NIST 612 (n=12)			13.45		2.13	72.48				11.63															
relative σ [%]			1.37		2.86	0.44				0.84															
Jochum [2]			14.00		2.06	71.70				11.93															
Hollocher [3]			13.16		2.32	72.17				12.09															
accuracy [%]			3.90 / -2.23		3.19 / 8.37	-1.09 / -0.43				2.54 / 3.83															

Trace elements [ppm]

	V	Cr	Mn	Co	Ni	Cu	Zn	Ga	As	Rb	Sr	Y	Zr	Nb	Mo	In	Sn	Sb	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	Pb	Bi	U
NIST 612 (n=12)	38.35	37.59	40.63	35.06	37.82	36.42	36.85	36.73	33.16	32.12	76.88	38.15	38.00	35.40	33.06	36.99	34.03	33.93	41.26	36.40	38.76	39.34	37.55	35.26	37.08	36.59	34.01	37.89	34.47	38.57	36.00	36.19	38.61	37.16	35.57	31.76	32.49	29.96	38.38
relative σ [%]	1.68	5.72	0.92	0.59	1.52	0.84	2.21	1.04	3.63	0.55	0.67	2.35	3.05	2.95	1.88	0.26	0.61	3.60	0.80	1.18	6.99	6.78	4.77	3.16	2.00	1.18	7.28	1.76	1.72	1.97	1.77	1.66	1.33	1.85	3.19	2.44	2.68	0.85	4.22
Jochum / Hochlocher	39.90	36.26	39.40	34.82	37.90	38.70	41.20	34 ^[3]	36.80	31.07	78.51	40.14	40.36	41.54	35.79	41 ^[3]	40.90	36.40	42.14	39.37	34.65	37.25	37.31	34.96	37.15	34 ^[3]	38.56	39.96	36.15	38.69	38.86	36 ^[3]	39.84	35 ^[3]	37.13	38.17	38.60	40 ^[3]	37.68
accuracy [%]	3.89	-3.67	-3.12	-0.70	0.20	5.89	10.55	-8.04	9.89	-3.37	2.08	4.97	5.85	14.78	7.63	9.78	16.79	6.77	2.08	7.54	-11.86	-5.62	-0.64	-0.87	0.19	-7.62	11.79	5.17	4.64	0.31	7.37	-0.52	3.10	-6.17	4.20	16.79	15.82	25.10	-1.85

1. Vicenzi EP, Eggins S, Logan A, Wysoczanski R. Microbeam characterization of corning archeological reference glasses: new additions to the smithsonian microbeam standard collection. Journal of Research of the National Institute of Standards and technology. 2002;107(6):719.
2. Jochum KP, Weis U, Stoll B, Kuzmin D, Yang Q, Raczek I, et al. Determination of reference values for NIST SRM 610–617 glasses following ISO guidelines. Geostandards and Geoanalytical Research. 2011;35(4):397-429.
3. Hollocher K, Ruiz J. Major and trace element determinations on NIST glass standard reference materials 611, 612, 614 and 1834 by inductively coupled plasma-mass spectrometry. Geostandards Newsletter. 1995;19(1):27-34.
4. Wagner B, Nowak A, Bulska E, Hametner K, Günther D. Critical assessment of the elemental composition of Corning archeological reference glasses by LA-ICP-MS. Analytical and bioanalytical chemistry. 2012;402(4):1667-1677.