

**Table S1:** Analyses of NIST 612 reference glass. External standardization was done by standard-sample-standard bracketing with ten measurements of the samples bracketed by two analyses of NIST 612 reference glass.

Element	1	2	3	4	5	6	Average	$\pm 2\sigma$ %
La	35.23	36.23	35.59	36.27	34.65	36.77	35.79	4.36
Ce	37.31	38.52	38.77	39.66	37.46	38.40	38.35	4.54
Pr	36.68	37.45	37.15	37.50	37.63	36.57	37.16	2.41
Nd	35.33	34.95	34.41	36.83	36.01	34.31	35.31	5.52
Sm	36.07	37.65	36.18	36.94	36.21	37.38	36.74	3.71
Eu	34.81	34.52	33.80	34.50	33.91	35.30	34.47	3.25
Gd	37.48	38.38	34.67	36.36	37.93	37.60	37.07	7.31
Tb	35.51	36.60	35.60	35.75	36.57	35.54	35.93	2.87
Dy	35.40	37.41	34.25	36.69	36.41	36.16	36.05	6.11
Ho	37.66	38.18	37.24	38.51	38.60	37.25	37.91	3.21
Er	37.39	37.52	36.00	39.46	37.38	37.39	37.52	5.90
Tm	37.68	37.50	36.78	38.50	37.66	37.45	37.60	2.94
Yb	39.42	40.14	39.20	41.73	39.96	39.56	40.00	4.57
Lu	37.77	37.83	37.17	38.10	37.96	37.59	37.74	1.73
Sc	40.12	41.72	40.36	43.34	40.71	41.02	41.21	5.74
V	38.31	38.86	39.95	41.09	37.82	39.40	39.24	6.02
Mn	37.67	38.49	38.61	39.74	38.36	37.88	38.46	3.77
Co	34.74	35.72	34.81	36.09	34.31	36.07	35.29	4.34
Ni	36.13	40.02	38.26	40.59	37.73	38.25	38.50	8.38
Zn	35.90	39.27	37.40	39.91	41.27	34.59	38.06	13.36
Sr	76.69	77.42	74.88	74.38	75.93	77.90	76.20	3.66
Y	38.73	39.24	37.21	36.90	38.05	39.70	38.31	5.83
Zr	35.23	37.47	34.20	37.20	36.12	36.29	36.09	6.78
Nb	37.12	38.56	38.31	38.57	38.17	37.58	38.05	3.06
Hf	33.34	35.52	34.54	36.59	34.54	34.29	34.80	6.42
Ta	38.90	40.56	38.92	41.23	39.27	40.05	39.82	4.79
Th	36.46	37.75	37.08	37.94	37.22	36.99	37.24	2.89
U	35.57	37.77	38.16	37.82	37.03	36.41	37.13	5.34