

SUPPLEMENTARY INFORMATION FOR

EVALUATION OF ALTERNATIVE PROCEDURES FOR THE PROVISION OF CONSENSUS AND ASSIGNED VALUES TO SIXTEEN TRACE ELEMENTS IN NATURAL WATER USED FOR AN ICP-MS PROFICIENCY TESTING EXERCISE

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ALPHABETICAL LIST OF PARTICIPATING LABORATORIES

Adirondack (Laboratorio de Análisis y Ensayos)
Agriquem (Laboratorio Agroalimentario y Medioambiental)
ATISAE
CENIM (Centro Nacional de Investigaciones Metalúrgicas)
Centro de Astrobiología CSIC-INTA
Centro Fraisoro
CiMA
Confederación Hidrográfica del Duero
EMASA (Empresa Municipal Aguas de Málaga)
EMATSA (Empresa Municipal de Aguas de Tarragona)
GEOCISA
IGME (Instituto Geológico y Minero de España)
INCAR (Instituto Nacional del Carbón)
Ingenieros Asesores
Instituto de Medicina Preventiva del Ejército de Tierra
IPROMA (Investigación y Proyectos Medio Ambiente S.L.)
LABAQUA
Laboratorio Agrario de Madrid
Laboratorio Dr. Echevarne
Laboratorio de Salud Pública de Alicante
Laboratorio de Salud Pública de la Generalitat de Valencia
Laboratorio de Sanidad de Murcia
Laboratorio de Sanidad de Vizcaya - Gobierno Vasco
Universidad Autónoma de Madrid - SIDI - Laboratorio de ICP-MS
Universidad de A Coruña - Servicio de Apoyo a la Investigación
Universidad de Alicante - Servicios Técnicos de Investigación
Universidad de Almería - Servicio ICP-MS
Universidad de Burgos - Servicio Central de Apoyo a la Investigación
Universidad de Cantabria - Departamento de Ingeniería Química y Química Orgánica
Universidad de Córdoba - Laboratorio de Espectrometría de Masas
Universidad de Jaén - Servicios Técnicos de Investigación
Universidad de Girona - Serveis Tècnics de Recerca
Universidad de León - Laboratorio de Técnicas Instrumentales
Universidad de Oviedo - Departamento de Química Física y Analítica
Universidad de Oviedo - Servicios Científico-Técnicos
Universidad de Sevilla - CITIUS - Servicio de Investigación Agraria
Universidad de Sevilla - CITIUS - Servicio de Radioisótopos
Universidad de Valladolid - Laboratorio de Técnicas Instrumentales
Universidad de Vigo - Centro de Apoyo Científico y Tecnológico a la Investigación
Universidad de Zaragoza - I3A - GUIA
Universidad de Zaragoza - Laboratorio Central de Análisis
Universidad del País Vasco - IBERCRON
Universidad del País Vasco - Departamento de Química Analítica (Bilbao)
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Universidad Jaime I - Departamento de Ciencias Experimentales
Universidad Politécnica de Cartagena - Servicio de Apoyo a la Investigación Tecnológica
Universidad Politécnica de Cataluña - CTM Centro Tecnológico

Table SI-1: Summary of ICP-MS instruments employed by the participating laboratories.

Type of ICP-MS instrument	Number of labs
Leco Renaissance	1
Thermo Element2	1
Thermo X7	3
Thermo X Series	2
Thermo PQ-Excell	1
Varian	2
Perkin Elmer Elan 6000	4
Perkin Elmer Elan 6100	2
Perkin Elmer Elan 9000	3
Perkin Elmer Elan DRC	2
Hewlett Packard 4500	2
Agilent 7500	5
Agilent 7500a	4
Agilent 7500c	6
Agilent 7500ce	5
not reported	4

Table SI-2: Summary of the preparation material and procedure employed by the participating laboratories.

Lab	Preparation Material	Preparation Procedure
1	other	volume
2		
3	plastic	weight
4	plastic	volume
6	plastic	weight
7	plastic	weight
8	plastic	weight
9		
10	plastic	weight
11	glass	volume
13	glass	volume
14	glass	volume
15	plastic	volume
16	plastic	weight
17	plastic	weight
18	plastic	volume
19	plastic	weight
21		
22		
23	glass	volume
24		
25		
27	plastic	volume
28	plastic	volume
30	plastic	volume
32	plastic	volume
33	plastic	volume
34	plastic	volume
35	glass	volume
37	plastic	volume
38	plastic	weight
39	glass	weight
40	plastic	volume
41	plastic	weight
42	glass	volume
44	plastic	volume
45	plastic	weight
48	plastic	weight
49	plastic	volume
50	plastic	volume
51	plastic	weight
52	plastic	weight
54	plastic	volume
55	plastic	volume
56	plastic	weight
57	plastic	weight
uniovi	plastic	weight

Table SI-3: Aluminium.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	27	Rh-Tb	0 - 50	½	yes	no	no
2							
3	27	⁷¹ Ga	0 - 100		yes	no	no
4	27	¹¹⁵ In	0 - 25		yes	no	no
6	27	no	0 - 200	no	yes	no	no
7	27	¹⁰³ Rh	0 - 200		no	no	no
8	27	Rh	25 - 200	1	yes	no	no
9	27	no				no	
10	27	⁷ Li	0 - 260	1	yes	no	no
11	27	⁴⁵ Sc	1 - 50	1	yes	no	no
13	27	45		1	yes	no	no
14	27	Sc	0 - 200	1	yes	no	no
15	27	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	27	⁴⁵ Sc	0 - 100		yes	no	no
17	27	Y	0 - 40	1	no	no	no
18	27	Sc	20 - 500		yes	no	no
19	27	In	0 - 500		no	no	
21							
22							
23	27	⁴⁵ Sc	0 - 80	1	no	no	no
24	27	⁸⁹ Y					
25	27	⁴⁵ Sc	0.5 - 1000	1		no	no
27	27		1 - 50	no	yes	no	no
28	27	In	0.1 - 50	no	no	no	no
30	27	Rh	1 - 100	without dilution	yes	no	no
32	27	In	0 - 100	1.075	yes	no	no
33	27	Er		1	yes	no	no
34	27	⁶ Li- ⁴⁵ Sc	0.1 - 10	10	yes	no	no
35	27	Rh	5 - 100		yes	no	no
37	27	⁷² Ge	1 - 100		yes	no	low res
38	27	In	2.5 - 50		yes	no	no
39	27	Sc, In, Bi	8 - 5000	1.25, 1.67, 2.51	yes	no	no
40	27	Rh	1 - 20	2	no		no
41	27	Tl	10 - 100	50%	no		He/H ₂
42	27	¹⁰³ Rh	5 - 100	1.04	yes	no	no
44	27	Li	0 - 52	3.3	yes		H ₂
45	27	Rh	1.6 - 2000		yes	no	no
48	27	Sc	0 - 98	~1	yes	no	no
49	27	Sc	10 - 100		yes		no
50	27	Sc	0.5 - 100	without dilution	yes	no	no
51	27		1 - 40		no	no	no
52	27	Ga	1 - 100		yes	no	no
54	27	Sc, Rh, Pd, Pt, Y	10 - 100		yes	no	no
55	27	¹¹⁵ In	0.5 - 250	1	yes	no	no
56	27	89	1 - 50	1.01	no	no	no
57	27	⁷¹ Ga	0 - 20	1 to 5	no	no	no
uniovi	27	⁷¹ Ga	0 - 50		yes	no	no

Table SI-4: Antimony.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	121	Rh, Tb	0 - 10	1/2	yes	no	no
2							
3	121	¹⁰³ Rh	0 - 10		yes	no	no
4	121	¹¹⁵ In	0 - 25		yes	no	no
6	121	no	0 - 25	no	yes	no	no
7	121	¹⁰³ Rh	0 - 150		no	no	no
8	121	Rh	1 - 25	1	yes	no	no
9	123	no				no	
10	121		0 - 5	1	yes	no	no
11	121	¹¹⁵ In	1 - 50	1	yes	no	no
13	121	159		1	yes	no	no
14	121	Rh	0 - 10	1	yes	no	no
15	121	¹⁰³ Rh	0.2 - 25		no	no	H ₂
16	121 (123)	¹⁵⁹ Tb	0 - 10		yes	no	no
17	121	no	0 - 40	1	no	no	no
18	121	Rh	0.3 - 20		yes	no	no
19	121	In	0 - 50		no	no	
21	121		1 - 100		no	no	no
22	121, 123	In			yes	no	no
23	121	⁸⁹ Y	0 - 4	1	no	no	He
24	121	¹⁵⁹ Tb					
25	121	¹¹⁵ In	0.5 - 100	1		no	no
27	121		1 - 10	no	yes	no	no
28	121, 123	In	0.1 - 5	no	no	no	no
30							
32	121	In	0 - 25	1.075	yes	no	no
33	121	Er		1	yes	no	no
34	121	¹¹⁵ In- ¹⁵⁹ Tb	0.1 - 5	10	yes	no	no
35	121	Rh	0.5 - 5	8/25, 12/25, 20/25	yes	no	no
37	121	¹¹⁵ In	0.25 - 25		yes	no	low res
38	121	In	0.1 - 10		yes	no	no
39	123	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	H ₂ /He
40	121	¹⁰³ Rh	0.5 - 5	2	no		no
41	121	no		50%	no	no	no
42	121	¹⁰³ Rh	0.1 - 5	1.04	yes	no	no
44	121, 123	Rh, Bi	0 - 5	3.3	yes	no	He
45							
48	123	Sc	0 - 25	~1	yes	yes	no
49		Sc	10 - 100		yes	yes	no
50	121, 123	Rh	0.5 - 100	without dilution	yes	yes	no
51							
52	121, 123	In	1 - 100		yes	no	no
54	121	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	121	¹⁵⁹ Tb	0.5 - 250	1	yes	no	no
56	121, 123	103	1 - 5	1.01	no	no	no
57	121	¹¹⁵ In	0 - 0.5	1 to 5	no	no	no
uniovi	121	¹²³ Sb	IDA		yes	no	no

Table SI-5: Arsenic.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	75	Rh-Tb	0 - 10	1/2	yes	yes	no
2							
3	75	⁷¹ Ga	0 - 20		yes	yes	no
4	75	¹¹⁵ In	0 - 25		yes	no	no
6	75	no	0 - 25	no	yes	no	no
7	75	¹⁰³ Rh	0 - 150		no	no	no
8	75	Rh	1 - 25	1	yes	yes	no
9	75	no				no	
10	75	⁷¹ Ga	0 - 50	1	yes	no	no
11	75	⁷² Ge	1 - 50	1	yes	yes	no
13	75	72		1	yes	yes	no
14	75	Ga	0 - 20	1	yes	yes	no
15	75	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	75	⁸⁹ Y	0 - 10		yes	no	no
17	75	no	0 - 40	1	no	no	no
18	75	Y	0.3 - 20		yes	yes	no
19	75	In	0 - 50		no	no	
21	75		0.1 - 100		no	no	no
22	75	Rh			yes	no	no
23	75	⁸⁹ Y	0.25 - 2	1	no	no	He
24	75	⁸⁹ Y				yes	
25	75	¹¹⁵ In	0.5 - 50	1		yes	no
27	75		0.5 - 10	no	yes	no	no
28	75	In	0.1 - 5	no	no	no	no
30	75	Rh	1 - 25	without dilution	yes	no	
32	75	In	0 - 25	1.075	yes	no	no
33	75	Er		1	yes	no	no
34	75	⁴⁵ Sc- ⁸⁹ Y	0.1 - 5	10	yes	yes	no
35	75	Rh	0.5 - 10	8/25, 12/25, 20/25	yes	no	no
37	75	⁷² Ge	0.25 - 25		yes	no	high res
38	75	In	0.1 - 10		yes	no	no
39	75	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	H ₂ /He
40							
41	75	Tl	1 - 10	50%	no	no	He/H ₂
42	75	¹⁰³ Rh	0.5 - 30	1.04	yes	yes	no
44	75	Li, Rh	0 - 5	3.3		no	He
45	75	Rh	0.08 - 100		yes	yes	
48	75	Sc	0 - 24	~1	yes	yes	no
49	75	Ge	10 - 100		yes	yes	no
50	75	Ge	0.5 - 50	without dilution	yes	yes	no
51	75		1 - 20		no	no	no
52	75	Ga	1 - 100		yes	no	no
54	75	Sc, Rh, Pd, Pt, Y	1 - 50		yes	yes	no
55	75	Sc, In, Tb, Bi	0.5 - 250	1	yes	yes	no
56	75	89	1 - 5	1.01	no	no	no
57	75	¹⁰³ Rh	0 - 0.5	1 to 5	no	no	no
uniovi	75	⁷¹ Ga	0 - 5		yes	no	H ₂

Table SI-6: Boron.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	11	Rh-Tb	0 - 50	1/2	yes	no	no
2							
3	11	⁷¹ Ga	0 - 200		yes	no	no
4							
6							
7	11	¹⁰³ Rh	0 - 500		no	no	no
8	11	Rh	25 - 200	1	yes	no	no
9	11	no				no	
10	11	no	0 - 500	1	yes	no	no
11	11	⁴⁵ Sc	10 - 100	1	yes	no	no
13							
14	11	Sc	0 - 200	1	yes	no	no
15	11	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	11 (10)	⁴⁵ Sc	0 - 200		yes	no	no
17	11	Y	0 - 40	1	no	no	no
18	11	Sc	0.6 - 400		yes	no	no
19	11	In	0 - 2000		no	yes	no
21	11		1 - 100				no
22							
23	11	⁴⁵ Sc	0 - 80	1	no	no	no
24	11	⁸⁹ Y					
25							
27	11		1 - 200	no	yes	no	no
28	11	In	50 - 500		no	no	
30	11	Rh	1 - 200	without dilution	yes	no	no
32		In	0 - 25	1.075	yes	no	no
33							
34	11	⁶ Li- ⁴⁵ Sc	0.1 - 50	10	yes	no	no
35	11	Rh	0.1 - 1000	8/25, 12/25, 20/25	yes	no	no
37	11	⁴⁵ Sc	5 - 500		yes	no	med res
38	10	In	5 - 500		yes	no	no
39	11	Sc, In, Bi	28 - 16000	1.25, 1.67, 2.51	yes		no
40	11	Rh	10 - 100	2			no
41	11	²⁰⁵ Tl	50 - 500	50%	no	no	He/H ₂
42	10	¹⁰³ Rh	0.1 - 2000	1.04	yes	no	no
44							
45							
48	11	Be	0 - 486	~1	yes	no	no
49	11	Sc	200 - 2000		yes		no
50	11	Sc	0.5 - 500	without dilution	yes	no	no
51							
52	10, 11	Ga	1 - 100		yes	no	no
54	11	Sc, Rh, Pd, Pt, Y	1 - 200		yes	no	no
55	11	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	10, 11	89	1 - 100	1.01	no	no	no
57	11	⁷¹ Ga	0 - 5	1 to 5		no	no
uniovi	11	¹⁰ B	IDA		yes	no	no

Table SI-7: Cadmium.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	111	Rh-Tb	0 - 5	1/2	yes	no	no
2							
3	111	¹⁰³ Rh	0 - 10		yes	no	no
4	111	¹¹⁵ In	0 - 25		yes	no	no
6	111	no	0 - 25	no	yes	no	no
7	111	¹⁰³ Rh	0 - 150		no	no	no
8	111	Rh	1 - 25	1	yes	no	no
9	111	no				no	
10	111	¹¹⁵ In	0 - 13	1	yes	no	no
11	111	¹¹⁵ In	1 - 50	1	yes	yes	no
13	111	72		1	yes	no	no
14	111	Rh	0 - 10	1	yes	no	no
15	114	¹⁰³ Rh	0.2 - 25		no	no	H ₂
16	111 (114)	⁸⁹ Y	0 - 10		yes	no	no
17	111	Rh	0 - 40	1	no	no	no
18	111	Rh	0.3 - 20		yes	yes	no
19	111	In	0 - 100		no	no	no
21	111, 112		1 - 100				
22	111, 114	In			yes	no	no
23	111	⁸⁹ Y	0 - 4	1	no	no	He
24	111	¹¹⁵ In					
25	111	¹¹⁵ In	0.5 - 50	1		no	no
27	114		0.5 - 10	no	yes	no	no
28	111	In	0.1 - 5	no	no	yes	no
30	114	Rh	1 - 25	without dilution	yes	yes	no
32	114	In	0 - 25	1.075	yes	no	no
33	111	Er		1	yes	no	no
34	111	⁸⁹ Y- ¹¹⁵ In	0.1 - 5	10	yes	no	no
35	114	Rh	0.2 - 10	8/25, 12/25, 20/25	yes	yes	no
37	111	¹¹⁵ In	0.25 - 25		yes	no	low res
38	111	In	0.2 - 25		yes	yes	no
39	111	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	no
40							
41	111	Rh	0.5 - 5	50%	yes		no
42	111, 114	¹⁰³ Rh	0.2 - 10	1.04	yes	yes	no
44		Rh, Bi	0 - 5	3.3		no	H ₂
45	114	Rh	0.04 - 50		yes	yes	no
48	111	Sc	0 - 24	~1	yes	yes	no
49	114	In	10 - 100		yes	yes	no
50	114	Rh	0.5 - 100	without dilution	yes	yes	no
51	111		1 - 20		no	no	no
52	111, 114	In	1 - 100		yes	no	no
54	111	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	111	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	111, 112, 114	103	1 - 5	1.01	no	no	no
57	111	¹¹⁵ In	0 - 0.5	1 to 5	no	no	no
uniovi	114	¹¹¹ Cd	IDA		yes	yes	no

Table SI-8: Copper.

	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	65	Rh-Tb	0 - 20	1/2	yes	no	no
2							
3	63	⁷¹ Ga	0 - 200		yes	no	no
4	63	¹¹⁵ In	0 - 25		yes	no	no
6	63	no	0 - 200	no	yes	no	no
7	63	¹⁰³ Rh	0 - 200		no	no	no
8	63	Rh	25 - 200	1	yes	no	no
9	63	no				no	
10	63	⁷¹ Ga	0 - 50	1	yes	no	no
11	63	⁷² Ge	1 - 50	1	yes	no	no
13	65	72		1	yes	no	no
14	65	Ga	0 - 200	1	yes	no	no
15	63	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	63 (65)	⁷² Ge	0 - 100		yes	no	no
17	63	Y	0 - 40	1	no	no	no
18	63	Sc	0.3 - 100		yes	no	no
19	63	In	0 - 250		no	no	no
21	63, 65		1 - 100				
22	63, 65	Rh			yes	no	no
23	65	⁴⁵ Sc	0 - 80	1	no	no	He
24	65	⁸⁹ Y					
25	65	⁴⁵ Sc	0.5 - 1000	1		no	no
27	63		1 - 50	no	yes	no	no
28	63, 65	In	0.1 - 25	no	no	no	no
30	63	Rh	1 - 100	without dilution	yes	no	
32	65	In	0 - 100	1.075	yes	no	no
33	63	Er		1	yes	no	no
34	65	⁴⁵ Sc- ⁸⁹ Y	0.1 - 10	10	yes	no	no
35	63	Rh	5 - 100	8/25, 12/25, 20/25	yes	no	no
37	65	⁴⁵ Sc	1 - 100		yes	no	med res
38	63	In	0.5 - 100		yes	no	no
39	63	Sc, In, Bi	28 - 16000	1.25, 1.67, 2.51	yes	no	He/H ₂
40	65	Rh	1 - 50	2	yes		no
41	65	Rh	2 - 20	50%	yes	no	no
42	63	¹⁰³ Rh	2 - 100	1.04	yes	no	no
44	63, 65	Rh	0 - 52	3.3	----	no	no
45	63	Rh	0.2 - 150		yes	no	no
48	63	Sc	0 - 23	~1	yes	no	no
49	65	Ge	10 - 100		yes		no
50	63, 65	Ge	0.5 - 100	without dilution	yes	no	no
51	63		1 - 100		no	no	no
52	63, 65	Ga	1 - 100		yes	no	no
54	63	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	65	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	63, 65	89	1 - 50	1.01	no	no	no
57							
uniovi	63	⁶⁵ Cu	IDA		yes	no	no

Table SI-9: Chromium.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	52	Rh-Tb	0 - 10	1/2	yes	no	no
2							
3	52	⁷¹ Ga	0 - 50		yes	no	no
4	53	¹¹⁵ In	0 - 25		yes	no	no
6	52	no	0 - 25	no	yes	no	no
7	53	¹⁰³ Rh	0 - 150		no	no	no
8	53	Rh	1 - 25	1	yes	no	no
9	53	no				no	
10	53	⁷¹ Ga	0 - 50	1	yes	no	no
11	53	⁴⁵ Sc	1 - 50	1	yes	no	no
13	53	45		1	yes	no	no
14	52	Ga	0 - 50	1	yes	no	no
15	52	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	52 (53)	⁴⁵ Sc	0 - 10		yes	no	no
17	53	Y	0 - 40	1	no	no	no
18	53	Sc	0.3 - 50		yes	no	no
19	53	In	0 - 250		no	no	no
21	52, 53		1 - 100				
22	53	Rh			yes	no	no
23	53	⁴⁵ Sc	0 - 8	1	no	no	He
24	52	⁸⁹ Y					
25	52	⁴⁵ Sc	0.5 - 50	1		no	no
27	52		1 - 20	no	yes	no	no
28	52	In	0.1 - 25	no	no	no	CH ₄
30	52	Rh	1 - 25	without dilution	yes	no	
32	52	In	0 - 25	1.075	yes	no	no
33	53	Er		1	yes	no	no
34	52	⁴⁵ Sc- ⁸⁹ Y	0.1 - 5	10	yes	no	no
35	52	Rh		8/25, 12/25, 20/25	yes	no	no
37	52	⁷² Ge	0.25 - 25		yes	no	low res
38	53	In	0.5 - 50		yes	no	no
39	52	Sc, In, Bi	8 - 5000	1.25, 1.67, 2.51	yes	no	He/H ₂
40	53	Rh	1 - 10	2	yes		no
41	52	Tl		50%	no	no	He/H ₂
42	52, 53	¹⁰³ Rh	1 - 50	1.04	yes	no	no
44	52, 53	Rh	0 - 52	3.3	yes		no
45	53	Rh	0.08 - 100		yes	yes	no
48	52	Sc	0 - 96	~1	yes	no	no
49	53		10 - 100				NH ₃
50	50, 52, 53	Ge	0.5 - 100	without dilution	yes	yes	no
51	53		1 - 40		no	no	no
52	52, 53	Ga	1 - 100	1:10	yes	no	no
54	52	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	52	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	50, 52, 53	89	1 - 25	1.01	no	no	no
57	53	⁷¹ Ga	0 - 5	1 to 5	no	no	no
uniovi	52	⁵³ Cr	IDA		yes	no	H ₂

Table SI-10: Iron.

	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	54	Rh-Tb	0 - 100	1/2	yes	yes	no
2							
3	54	⁷¹ Ga	0 - 200		yes	yes	no
4	56		0 - 100		yes	no	no
6	54	no	0 - 200	no	yes	no	no
7	56	¹⁰³ Rh	0 - 200		no	no	no
8	54	Rh	25 - 200	1	yes	yes	no
9	57	no				no	
10	54	⁷¹ Ga	0 - 50	1	yes	no	no
11	57	⁴⁵ Sc	10 - 500	1	yes	no	no
13	54	72		1	yes	no	no
14	54	Sc	0 - 200	1	yes	yes	no
15	56	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	54 (56, 57)	⁴⁵ Sc	0 - 50		yes	no	no
17	57	Y	0 - 40	1	no	no	no
18	57	Sc	30 - 2000		yes	no	no
19	57		1 - 100		no	no	no
21							
22							
23	56	⁴⁵ Sc	0 - 80	1	no	no	He
24	57	⁸⁹ Y					
25				1			
27	57		10 - 200	no	yes	no	no
28	56	In	0.1 - 50	no	no	no	CH ₄
30	57	Rh	1 - 200	without dilution	yes	no	no
32							
33	56	Er		1	yes	no	no
34	56	⁴⁵ Sc- ⁸⁹ Y	0.1 - 10	10	yes	no	no
35							
37	56	⁴⁵ Sc	1 - 100		yes	no	med res
38							
39	54	Sc, In, Bi	8 - 5000	1.25, 1.67, 2.51	yes	no	H ₂ /He
40	57	Rh	10 - 50	2	no		no
41	56	²⁰⁵ Tl	5 - 100	50%	no	no	He/H ₂
42							
44							
45	57	Rh	0 - 1000		yes	yes	no
48	57	Sc	0 - 96	~1	yes	no	no
49							
50	54	Ge	10 - 50	without dilution	yes	yes	no
51	57		1 - 100		no	no	no
52	54	Ga	1 - 100	1	yes	no	no
54	57	Sc, Rh, Pd, Pt, Y	10 - 100		yes	no	no
55	56	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	54, 56, 57	⁸⁹ Y	1 - 50	1.01	no	no	no
57	54	⁷¹ Ga	0 - 20	1 to 5	no	no	no
uniovi	56	⁵⁷ Fe	IDA		yes	no	H ₂

Table SI-11: Manganese.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	55	Rh-Tb	0 - 10	1/2	yes	no	no
2							
3	55	⁷¹ Ga	0 - 50		yes	no	no
4	55	¹¹⁵ In	0 - 25		yes	no	no
6	55	no	0 - 200	no	yes	no	no
7	55	¹⁰³ Rh	0 - 200		no	no	no
8	55	Rh	1 - 25	1	yes	no	no
9	55	no				no	
10	55	⁷¹ Ga	0 - 50	1	yes	no	no
11	55	⁴⁵ Sc	1 - 50	1	yes	no	no
13	55	45		1	yes	no	no
14	55	Ga	0 - 50	1	yes	no	no
15	55	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	55	⁴⁵ Sc	0 - 50		yes	no	no
17	55	Y	0 - 40	1	no	no	no
18	55	Sc	0.3 - 50		yes	no	no
19	55	In	0 - 250		no	no	no
21	55		1 - 100		no		
22	55	Rh			yes	no	no
23	55	⁴⁵ Sc	0 - 80	1	no	no	He
24	55	⁸⁹ Y					
25	55	⁴⁵ Sc	0.5 - 100	1		no	no
27	55		1 - 50	no	yes	no	no
28	55	In	0.1 - 25	no	no	no	no
30	55	Rh	1 - 100	without dilution	yes	no	no
32	55	In	0 - 100	1.075	yes	no	no
33	55	Er		1	yes	no	no
34	55	⁴⁵ Sc- ⁸⁹ Y	0.1 - 10	10	yes	no	no
35	55	¹⁰³ Rh	0.5 - 50	8/25, 12/25, 20/25	yes	no	no
37	55	Ge	1 - 100		yes	no	low res
38	55	¹¹⁵ In	0.1 - 50			no	no
39	55	Sc, In, Bi	8 - 5000	1.25, 1.67, 2.51	yes	no	He/H ₂
40	55	Rh	1 - 10	2	no		no
41	55	Rh	2 - 20	50%	yes	no	He/H ₂
42	55	¹⁰³ Rh	0.5 - 50	1.04	yes	no	no
44	55	Rh	0 - 52	3.33	yes	no	no
45	55	Rh	0.12 - 150		yes	no	no
48	55	Sc	0 - 96	~1	yes	yes	no
49	55	Sc	10 - 100		yes		no
50	55	Ge	0.5 - 100	without dilution	yes	no	no
51	55		1 - 100		no	no	no
52	55	Ga	1 - 100		yes	no	no
54	55	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	55	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	55	89	1 - 25	1.01	no	no	no
57	55	⁷¹ Ga	0 - 20	1 to 5	no	no	no
uniovi	55	⁷¹ Ga	0 - 20		yes	no	H ₂

Table SI-12: Nickel.

	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	60	Rh-Tb	0 - 20	1/2	yes	no	no
2							
3	62	⁷¹ Ga	0 - 20		yes	no	no
4	60	¹¹⁵ In	0 - 25		yes	no	no
6	60	no	0 - 25	no	yes	no	no
7	60	¹⁰³ Rh	0 - 150		no	no	no
8	60	Rh	1 - 25	1	yes	no	no
9	60	no				no	
10	60	⁷¹ Ga	0 - 50	1	yes	no	no
11	60	⁴⁵ Sc	1 - 50	1	yes	no	no
13	60	72		1	yes	no	no
14	62	Ga	0 - 50	1	yes	no	no
15	58	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	60 (62)	⁷² Ge	0 - 10		yes	no	no
17	60	Y	0 - 40	1	no	no	no
18	60	Sc	0.3 - 50		yes	no	no
19	60	In	0 - 250		no	no	no
21	60		1 - 100		no		
22	58, 60	Rh			yes	no	no
23	60	⁴⁵ Sc	0 - 8	1	no	no	He
24	60	⁸⁹ Y					
25							
27	60		1 - 10	no	yes	no	no
28	62	In	0.1 - 10	no	no	no	no
30	60	Rh	1 - 25	without dilution	yes	no	
32	62	In	0 - 25		yes	no	no
33	60	Er		1	yes	no	no
34	60	⁴⁵ Sc- ⁸⁹ Y	0.1 - 5	10	yes	no	no
35	58	Rh	1 - 20	8/25, 12/25, 20/25	yes	yes	no
37	60	⁴⁵ Sc	0.25 - 25		yes	no	med res
38							
39	60	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	no
40	62	Rh	1 - 10	2	yes		no
41	60	Rh	1 - 15	50%	yes	no	no
42	60	¹⁰³ Rh	0.5 - 30	1.04	yes	no	no
44	60, 62	Rh	0 - 10	3.3	yes	no	no
45	60	Rh	0.32 - 400		yes	yes	no
48	60	Sc	0 - 23	~1	yes	no	no
49	58	Ge	10 - 100		yes	yes	NH ₃
50	60, 62	Ge	0.5 - 100	without dilution	yes	no	no
51	60		1 - 40		no	no	no
52	60, 62	Ga	1 - 100		yes	no	no
54	60	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	60, 62	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	58, 60, 62	89	1 - 25	1.01	no	no	no
57	60	⁷¹ Ga	0 - 2.5	1 to 5	no	no	no
uniovi	60	⁶¹ Ni	IDA		yes	no	no

Table SI-13: Lead.

	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	208	Rh-Tb	0 - 10	1/2	yes	no	no
2							
3	208	²⁰⁵ Tl	0 - 20		yes	no	no
4	208	¹¹⁵ In	0 - 25		yes	no	no
6	208	no	0 - 25	no	yes	no	no
7	208	²⁰⁵ Tl	0 - 150		no	no	no
8	208	¹⁸⁵ Re	1 - 25	1	yes	no	no
9	208	no				no	
10	208	²⁰⁵ Tl	0 - 50	1	yes	no	no
11	208	²⁰⁹ Bi	0 - 50	1	yes	yes	no
13	208	159		1	yes	no	no
14	208	Bi	0 - 50	1	yes	no	no
15	208	¹⁸⁵ Re	0.2 - 25		no	no	H ₂
16	208 (206)	¹⁵⁹ Tb	0 - 10		yes	no	no
17	208	Th	0 - 40	1	no	no	no
18	208	Tb	0.3 - 20		yes	yes	no
19	208	In	0 - 250		no	no	no
21	206, 208		1 - 100		no		
22	206, 208	Tl			yes	no	no
23	206	²⁰⁹ Bi	0 - 8	1	no	no	He
24	206, 207, 208	¹⁵⁹ Tb					
25	208	¹⁸⁵ Re	0.5 - 100	1		no	no
27	208		1 - 10	no	yes	no	no
28	208	In	0.1 - 10	no	no	no	no
30	208	Rh	1 - 25	without dilution	yes	yes	no
32	206, 207, 208	Bi	0 - 25	1.075	yes	no	no
33	208	Er		1	yes	no	no
34	206, 207, 208	¹⁶⁵ Ho- ²⁰⁹ B	0.1 - 5	10	yes	yes	no
35	206	Rh	0.5 - 10	8/25, 12/25, 20/25	yes	no	no
37	206, 207, 208	²⁰⁵ Tl	0.25 - 25		yes	yes	low res
38	208	In	0.5 - 10		yes	yes	no
39	206, 207, 208	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	yes	no
40	208	Rh	1 - 10	2	no		no
41	208	Tl	1 - 10	50%	yes	no	no
42	206, 207, 208	¹⁰³ Rh	1 - 50	1.04	yes	yes	no
44	206, 207, 208	Bi	0 - 5	3.3		yes	no
45	208	Re	0.024 - 30		yes	yes	no
48	206, 207, 208	Sc	0 - 24	~1	yes	no	no
49	208	Bi	10 - 100		yes		no
50	206, 207, 208	Re	0.5 - 100	without dilution	yes	yes	no
51	208		1 - 20		no	no	no
52	206, 208	In	1 - 100		yes	no	no
54	208	Sc, Rh, Pd, Pt, Y	1 - 50		yes	no	no
55	208	²⁰⁹ Bi	0.5 - 250	1	yes	yes	no
56	206, 207, 208	103	1 - 5	1.01	no	no	no
57	208	²⁰⁵ Tl	0 - 2.5	1 to 5	no	no	no
uniovi	208	²⁰⁷ Pb	IDA		yes	no	no

Table SI-14: Selenium.

	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	82	Rh-Tb	0 - 20	1/2	yes	yes	
2							
3	82	⁷¹ Ga	0 - 20		yes	no	no
4	82	¹¹⁵ In	0 - 25		yes	no	no
6	82	no	0 - 25	no	yes	no	no
7	82	¹⁰³ Rh	0 - 150		no	no	no
8	82	Rh	1 - 25	1	yes	no	no
9	82	no				no	
10	77	⁸⁹ Y	0 - 13	1	yes	no	no
11	82	⁷² Ge	1 - 50	1	yes	yes	no
13	82	72		1	yes	no	no
14	82	Ga	0 - 20	1	yes	no	no
15							
16	82 (77)	⁸⁹ Y	0 - 10		yes	no	no
17							
18	82	Y	0.3 - 20		yes	no	no
19	82	In	0 - 100		no	no	no
21	77		1 - 100		no		
22	77, 82	Rh			yes	no	no
23	82	⁸⁹ Y	0 - 8	1	no	no	He
24	78	⁸⁹ Y				yes	
25	82	¹¹⁵ In	0.5 - 50	1		no	no
27	82		1 - 10	no	yes	no	no
28	80	In	0.1 - 10	no	no	yes	CH ₄
30							
32	77	In	0 - 120	1.075	yes	no	no
33	82	Er		1		no	no
34	82	⁴⁵ Sc- ⁸⁹ Y	0.1 - 5	10	yes	no	no
35	82	Rh	0.5 - 10	8/25, 12/25, 20/25	yes	yes	no
37	82	⁷² Ge	0.25 - 25		yes	yes	low res
38	82	In	1 - 25		yes	no	no
39	80	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	H ₂ /He
40	77	Rh	1 - 10	2	yes		no
41	80		0.5 - 8	50%	yes		He/H ₂
42	82	¹⁰³ Rh	0.2 - 30	1.04	yes	yes	no
44	77, 82	Rh	0 - 5	3.3	----	no	H ₂
45	77	Rh	0.08 - 100		yes		no
48	82	Sc	0 - 96	~1	yes	yes	no
49	82	Ge	10 - 100		yes	yes	no
50	80	Ge	0.5 - 100	without dilution	yes	yes	no
51	82		1 - 20		no	no	no
52	77, 78, 82	Ga	1 - 100	1:01	yes	no	no
54	78	Sc, Rh, Pd, Pt, Y	1 - 50		yes	yes	no
55	82	Sc, In, Tb, Bi	0.5 - 250	1	yes	yes	no
56	78, 82	89	1 - 25	1.01	no	no	no
57	82	¹⁰³ Rh	0 - 5	1 to 5	no	no	no
uniovi	80	⁷⁷ Se	IDA		yes	no	no

Table SI-15: Strontium.

	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	88	Rh-Tb	0 - 50	1/2	yes	no	no
2							
3							
4	88	¹¹⁵ In	0 - 25		yes	no	no
6	86	no	0 - 200	no	yes	no	no
7	88	¹⁰³ Rh	0 - 500		no	no	no
8	88	Rh	200 - 2000	1	yes	no	no
9	88	no				no	
10							
11							
13	88	72		1	yes	no	no
14							
15	88	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	88 (86)	⁸⁹ Y	0 - 2000		yes	no	no
17	88	Y	0 - 40	84	no	no	no
18	88	Y	0.3 - 400	10	yes	no	no
19	88	In	0 - 2000		no	no	no
21	88	no	1 - 100		no		
22	88	Rh			yes	no	no
23	88	⁸⁹ Y	0 - 2000	1	no	no	He
24	88	⁸⁹ Y					
25	88	¹¹⁵ In	0.5 - 1000	1 to 20	----	no	no
27	88		100 - 2000	no	yes	no	no
28	88	In	50 - 500	1:1	no	no	no
30	88	¹⁰³ Rh	50 - 2000	without dilution	yes	no	no
32		In	0 - 120	1.075	yes	no	no
33							
34	88	⁴⁵ Sc- ⁸⁹ Y	0.1 - 100	10	yes	no	no
35	86	Rh	1 - 100	8/25, 12/25, 20/25	no	yes	no
37	88	⁸⁹ Y	20 - 2000		yes	yes	med res
38	86	In	0.1 - 1200		yes	no	no
39	88	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	no
40	88	Rh	50 - 1000	2	no		no
41	88	Tl	50 - 500	50%	no	no	He/H ₂
42							
44							
45							
48	88	Sc	0 - 1930	~1	yes	no	no
49							
50	88	Ge	10 - 500	1:10	yes	no	no
51	88		100 - 1000		no	no	no
52	86, 88	Ga	1 - 100	1:50	yes	no	no
54	88	Sc, Rh, Pd, Pt, Y	1 - 200		yes	no	no
55	88	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	86, 87, 88	89	1 - 100	10	no	no	no
57	88	¹⁰³ Rh	0 - 10	1 to 5	no	no	no
uniovi	88	⁸⁷ Sr	IDA		yes	no	no

Table SI-16: Molybdenum.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	95	Rh-Tb	0 - 10	1/2	yes	no	no
2							
3							
4	95	¹¹⁵ In	0 - 25		yes	no	no
6	95	no	0 - 25	no	yes	no	no
7							
8	95	Rh	1 - 10	1	yes	no	no
9	98	no				no	
10							
11	95	⁸⁹ Y	1 - 50		yes	no	no
13	95	72		1	yes	no	no
14							
15	97	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	95 (98)	⁸⁹ Y	0 - 10		yes	no	no
17	95	no	0 - 40	1	no	no	no
18	95	Y	0.3 - 20		yes	no	no
19	98	In	0 - 100		no	no	no
21							
22	95, 98	Rh			yes	no	no
23	98	⁸⁹ Y	0 - 1		no	no	He
24	98	¹¹⁵ In					
25	95	¹¹⁵ In	0.5 - 50	1		no	no
27	98		0.2 - 10	no	yes	no	no
28	98	In	0.1 - 5	no	no	no	no
30	98	Rh	1 - 25	without dilution	yes	yes	
32	98	¹¹⁵ In	0 - 25	1.075	yes	no	no
33							
34	95	⁸⁹ Y- ¹¹⁵ In	0.1 - 5	10	yes	no	no
35							
37	95	⁸⁹ Y	0.25 - 25		yes	yes	low res
38	98	In	0.1 - 10		yes	no	no
39	95	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	no
40							
41	95	Rh		50%	no	no	no
42							
44	95, 97, 98	Rh	0 - 5	3.3		no	no
45							
48	98	Sc	0 - 22	~1	yes	no	no
49	95	Y	10 - 100		yes	yes	no
50	95, 97, 98	Rh	0.5 - 50	without dilution	yes	yes	no
51							
52	95, 97	Ga	1 - 100		yes	no	no
54	98	Sc, Rb, Pd, Pt, Y	1 - 50		yes	yes	no
55	95	Sc, In, Tb, Bi	0.5 - 250	1	yes	yes	no
56	95, 96, 98	103	1 - 5	1.01	no	no	no
57	95	⁷¹ Ga	0 - 0.5	1 to 5	no	no	no
uniovi	97	⁹⁵ Mo	IDA		yes	no	no

Table SI-17: Uranium.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	238	Tb	0 - 10	1/2	yes	no	no
2							
3							
4							
6							
7	238	²⁰⁵ Tl	0 - 150		no	no	no
8	238	¹⁸⁵ Re	1 - 25	1	yes	no	no
9	238	no				no	
10							
11							
13	238	209		1	yes	no	no
14	238	Bi	0 - 20	1	yes	no	no
15							
16	238	¹⁵⁹ Tb	0 - 10		yes	no	no
17	238	no	0 - 40	1	no	no	no
18	238	Bi	0.3 - 20		yes	no	no
19	238	In	0 - 100		no	no	no
21	238		1 - 100		no		
22	238	Tl			yes	no	no
23							
24							
25	238	¹⁸⁵ Re	0.5 - 50	1		no	no
27	238		1 - 10	no	yes	no	no
28	238	In	0.1 - 5	no	no	no	no
30	238	Rh	1 - 25	without dilution	yes	no	
32	238	Bi	0 - 25	1.075	yes	no	no
33							
34	238	²⁰⁹ Bi	0.1 - 5	10	yes	no	no
35	238	Rh	0.5 - 20	8/25, 12/25, 20/25	yes		no
37	238	²⁰⁵ Tl	0.25 - 25		yes	no	low res
38	238	In	0.1 - 5		yes	no	no
39	235, 238	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	no
40	238	Rh	0.5 - 10	2	no		no
41	238	Tl	0.5 - 5	50%	yes	no	no
42							
44	238	Bi	0 - 5	3.3	yes	no	H ₂
45							
48	238	Bi	0 - 24	~1	yes	no	no
49	238	Bi	10 - 100		yes		no
50	238	Re	0.5 - 50	without dilution	yes	no	no
51	238		1 - 20		no	no	no
52	235, 238	In	1 - 100		yes	no	no
54							
55	238	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	235, 238	103	1 - 5	1.01	no	no	no
57	238	²⁰³ Tl	0 - 0.5	1 to 5	no	no	no
uniovi	238	²³² Th	0 - 10		yes	no	no

Table SI-18: Zinc.

Lab	Working Isotopes	Internal Standard	Calibration Range	Dilution Factor	Quality Control	Interference Correction	Cell Gas
1	66	Rh-Tb	0 - 50	1/2	yes	no	no
2							
3	66	⁷¹ Ga	0 - 50		yes	no	no
4	66	¹¹⁵ In	0 - 25		yes	no	no
6	66	no	0 - 25	no	yes	no	no
7	66	¹⁰³ Rh	0 - 150		no	no	no
8	66	Rh	1 - 25		yes	no	no
9	66	no				no	
10	66	⁷¹ Ga	0 - 50	1	yes	no	no
11	66	⁷² Ge	1 - 50		yes	no	no
13	66	72		1	yes	no	no
14	66	Ga	0 - 50		yes	no	no
15	64	⁸⁹ Y	0.2 - 25		no	no	H ₂
16	66 (64)	⁷² Ge	0 - 100		yes	no	no
17	66	Y	0 - 40	1	no	no	no
18	66	Y	0.3 - 100		yes	no	no
19	66	In	0 - 250		no	no	no
21	66, 68	no	1 - 100		no		
22	66, 68	Rh			yes	no	no
23	66	⁸⁹ Y	0 - 8		no		He
24	66	⁸⁹ Y					
25	66	⁴⁵ Sc	0.5 - 100	1		no	no
27	64		1 - 20	no	yes	no	no
28	66	In	0 - 25	no	no	no	CH ₄
30	66	Rh	1 - 25	without dilution	yes	no	no
32	66	In	0 - 100	1.075	yes	no	no
33	66	Er		1	yes	no	no
34	66	⁴⁵ Sc- ⁸⁹ Y	0.1 - 5	10	yes	no	no
35	64	Rh	0.5 - 20	8/25, 12/25, 20/25	yes	yes	no
37	66	⁷² Ge	0.25 - 25		yes	no	low res
38	66	In	5 - 50		yes	no	no
39	67	Sc, In, Bi	2 - 1200	1.25, 1.67, 2.51	yes	no	no
40	67	Rh	1 - 10	2	yes		no
41	66	Rh	1 - 20	50%	yes	no	no
42	66	¹⁰³ Rh	1 - 200	1.04	yes	no	no
44	66, 67, 68	Rh	0 - 5	3.3	yes	no	H ₂
45	64	Rh	0.16 - 200		yes	yes	no
48	66	Sc	0 - 23	~1	yes	no	no
49	68	Ge	10 - 100		yes		no
50	66, 68	Ge	0.5 - 100	without dilution	yes	no	no
51	66		1 - 40		no	no	no
52	64, 66	Ga	1 - 100		yes	no	no
54	66	Sc, Rb, Pd, Pt, Y	1 - 50		yes	no	
55	68	Sc, In, Tb, Bi	0.5 - 250	1	yes	no	no
56	64, 66, 68	89	1 - 25	1.01	no	no	no
57	66	⁷¹ Ga	0 - 5	1 to 5	no	no	no
uniovi	66	⁶⁷ Zn	IDA		yes	no	H ₂

Figure SI-1. Signal intensity of ^{56}Fe , ^{57}Fe , ^{75}As and ^{80}Se as a function of the hydrogen flow rate in the octapole reaction cell. Signal intensity for the blank solution (1% (w/w) HNO_3) (red line), signal intensity for a $40\ \mu\text{g kg}^{-1}$ iron, arsenic and selenium standard (blue line); and, background equivalent concentration (BEC) expressed in $\mu\text{g kg}^{-1}$ (green line).

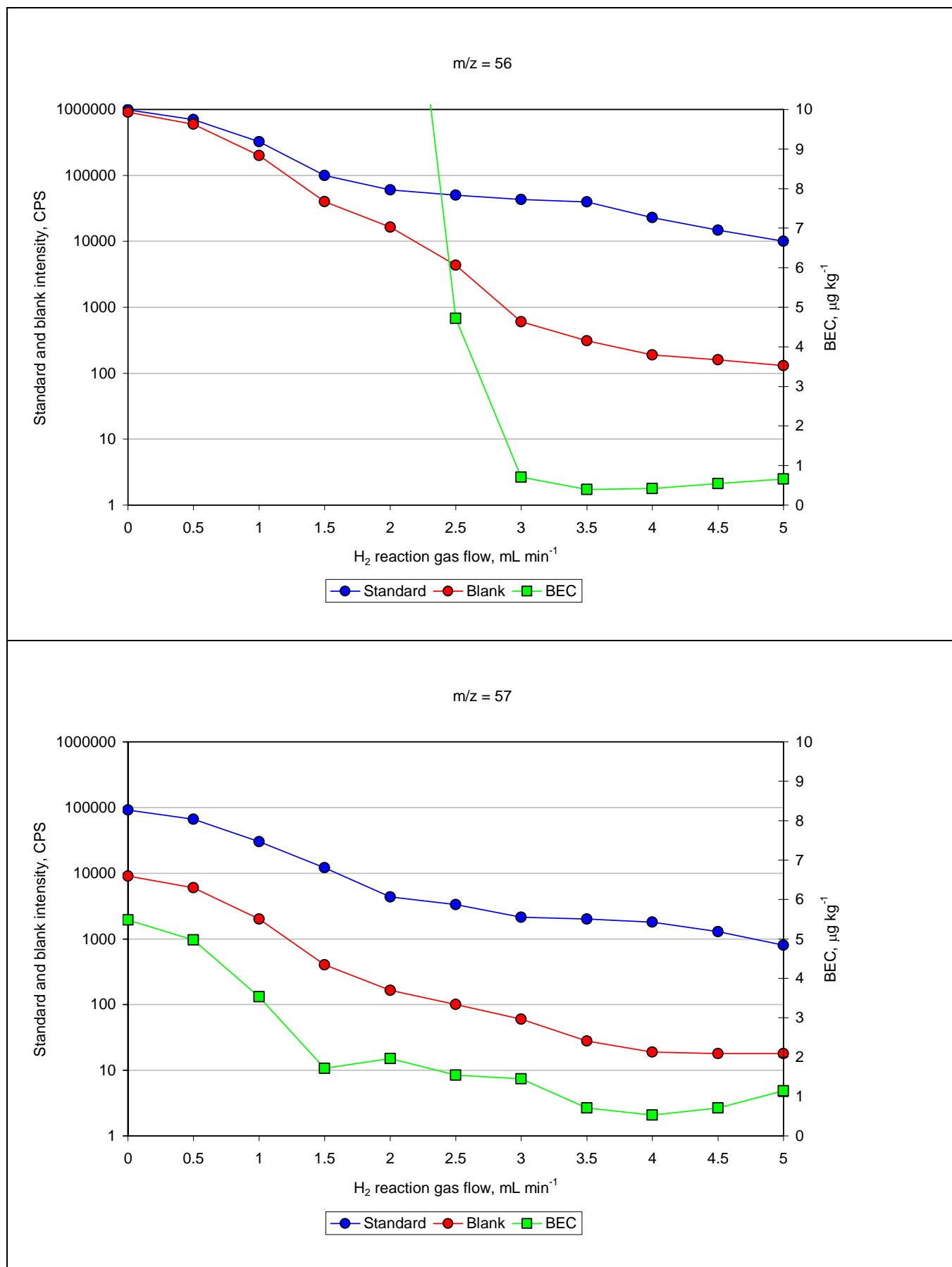


Figure SI-1 (cont.). Signal intensity of ^{56}Fe , ^{57}Fe , ^{75}As and ^{80}Se as a function of the hydrogen flow rate in the octapole reaction cell. Signal intensity for the blank solution (1% (w/w) HNO_3) (red line), signal intensity for a $40\ \mu\text{g}\ \text{kg}^{-1}$ iron, arsenic and selenium standard (blue line); and, background equivalent concentration (BEC) expressed in $\mu\text{g}\ \text{kg}^{-1}$ (green line).

