GBC Scientific Equipment

DETECTION LIMITS

Element	Flame AAS ppm (µg/mL)	ICP-OES ppb (µg/L)	Graphite Furnace AAS (Deuterium B/C) ppb (µg/L)	ICPTOF-MS ppt (ng/L)
Ag	0.002	0.5	0.025	0.3
Al	0.03	0.7	0.05	0.08
As	0.2	5	1	2.5
Au	0.01	0.9	0.5	2.0
B	0.5	0.4	75	2.0
Ba	0.01	0.04	0.2	0.3
Be	0.001	0.06	0.1	2.0
Bi	0.04	5	0.5	0.03
Br		559		
C		10		
Ca	0.0005	0.006	0.05	2.4
Cd	0.0004	0.1	0.015	0.87
Ce		6		0.7
Cl	0.03	139,000		
Co	0.004	0.4	0.10	1.0
Cr	0.003	0.9	0.05	9.1
Cs	0.004	2,700	1	0.7
Cu	0.001	0.4	0.1	1.6
Dy	0.03	0.7	5	0.04
Er	0.03	0.2	10	0.1
Eu	0.02	0.7	2.5	0.1
Fe	0.005	0.5	0.1	6.8
Ga	0.06	8	2.5	29
Gd	2.0	2		1.0
Ge	0.2	13		13
Hf	2.0	2		0.01
Hg	0.15	5	10	0.9
Ho	0.04	0.7		0.07
I		42		
In	0.04	13	5	4.0
Ir	0.4	5		0.1
K	0.003	13	0.05	4.8
La	2.0	0.08		0.06
Li	0.002	0.5	0.5	0.8
Lu	0.3	0.1		0.06
Mg	0.00003	0.05	0.02	1.5
Mn	0.0015	0.09	0.05	3.95

Accessories which enhance these sensitivities:

- *Super Lamps*
- *Atom trap*
- *Hydride Generator*
- *Mercury Concentrator*

AAS

ICP-OES

ICPTOF-MS

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DETECTION LIMITS (continued)

Element	Flame AAS ppm (µg/mL)	ICP-OES ppb (µg/L)	Graphite Furnace AAS (Deuterium B/C) ppb (µg/L)	ICPTOF-MS ppt (ng/L)
Mo	0.02	0.7	0.1	0.11
Na	0.0002	0.7	0.025	6.2
Nb	2.0	4		0.3
Nd	1.0	3		0.3
Ni	0.09	1	0.5	6.1
Os	0.1	0.1		
P	40	2	150	
Pb	0.01	2	0.25	0.2
Pd	0.01	2	1.5	1.1
Pr	6.0	0.8		0.9
Pt	0.1	8	1	0.4
Rb	0.007	0.8	0.25	2.5
Re	0.6	1		0.06
Rh	0.004	5		0.4
Ru	0.06	8	1	4.5
S		2		
Sb	0.04	3	0.75	1.4
Sc	0.04	0.1		5
Se	0.5	5	2.5	33
Si	0.1	0.9	0.5	5.0
Sm	1.0	6		1.0
Sn	0.03	8	1	2.4
Sr	0.002	0.009	0.5	0.86
Ta	2.0	8		0.1
Tb	0.5	3	0.5	0.6
Te	0.02	2	0.5	5.0
Th		5		0.1
Ti	0.07	0.2	2.5	9.4
Tl	0.02	6	0.5	0.09
Tm	0.9	0.9		0.04
U	40	17		0.07
V	0.05	0.2	1	1.5
W	1.0	6		1.0
Y	0.2	0.4		0.2
Yb	0.004	0.1		0.1
Zn	0.0005	0.12	0.005	1.8
Zr	1.0	0.7		16.6

Accessories which enhance these sensitivities:

- *Super Lamps*
- *Atom trap*
- *Hydride Generator*
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