

Lamp and Working standard for Graphite Furnace Atomic Absorption Spectrometry (GFAAS)

No.	EDL Lamp	Characteristic Mass (pg/0.0044 A ⁻ s)	Sensitivity Check (μg/L for A ⁻ s)	Modifier
1	As	40 pg /0.0044 A ⁻ s	50 μg/L for 0.11 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂
2	Cd	1.3 pg /0.0044 A ⁻ s	2.0 μg/L for 0.13 A ⁻ s	0.05 mg NH ₄ H ₂ PO ₄ + 0.003 mg Mg(NO ₃) ₂
3	Hg	220 pg /0.0044 A ⁻ s	400 μg/L for 0.16 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂
4	Pb	30 pg /0.0044 A ⁻ s	50 μg/L for 0.15 A ⁻ s	0.05 mg NH ₄ H ₂ PO ₄ + 0.003 mg Mg(NO ₃) ₂
5	Se	45 pg /0.0044 A ⁻ s	100 μg/L for 0.20 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂

No.	HCL Lamp	Characteristic Mass (pg/0.0044 A ⁻ s)	Sensitivity Check (μg/L for A ⁻ s)	Modifier
1	Ag	4.5 pg/0.0044 A ⁻ s	5.0 μg/L for 0.10 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂
2	Au	18 pg/0.0044 A ⁻ s	40 μg/L for 0.20 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂
3	B	600 pg/0.0044 A ⁻ s	2000 μg/L for 0.30 A ⁻ s	0.005 mg Ca
4	Ca	1.0 pg/0.0044 A ⁻ s	2.0 μg/L for 0.18 A ⁻ s	none
5	Co	17 pg/0.0044 A ⁻ s	20 μg/L for 0.10 A ⁻ s	0.015 mg Mg(NO ₃) ₂
6	Cr	7.0 pg/0.0044 A ⁻ s	10.0 μg/L for 0.13 A ⁻ s	0.015 mg Mg(NO ₃) ₂
7	Cu	17 pg/0.0044 A ⁻ s	25 μg/L for 0.15 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂
8	Fe	12 pg/0.0044 A ⁻ s	20 μg/L for 0.15 A ⁻ s	0.015 mg Mg(NO ₃) ₂
9	K	2.0 pg/0.0044 A ⁻ s	5.0 μg/L for 0.22 A ⁻ s	none
10	Mg	0.4 pg/0.0044 A ⁻ s	1.0 μg/L for 0.22 A ⁻ s	none
11	Mn	6.3 pg/0.0044 A ⁻ s	10 μg/L for 0.14 A ⁻ s	0.005 mg Pd + 0.003 mg Mg(NO ₃) ₂
12	P	210000 pg/0.0044 A ⁻ s	20000 μg/L for 0.08 A ⁻ s	0.020 mg Pd + 0.005 mg Mg(NO ₃) ₂
13	Zn	1.0 pg/0.0044 A ⁻ s	2.0 μg/L for 0.18 A ⁻ s	0.005 mg Mg(NO ₃) ₂