

Cu (Copper)

A.W. 63.54

Preparation of Standard Solutions**Recommended Standard Materials**

Copper metal strip or wire 99.99%

Solution Technique

Dissolve 1.000 g of copper metal in a minimum volume of 1:1 nitric acid and dilute to 1 litre to give 1000 µg/mL Cu.

Recommended Instrument Parameters**Atomic Absorption****Working Conditions (Fixed)**

Lamp current 4 mA
 Fuel acetylene
 Support air
 Flame stoichiometry oxidizing

Working Conditions (Variable)

Wavelength (nm)	Slit Width (nm)	Optimum Working Range (µg/L)
324.7	0.5	0.03–10
327.4	0.2	0.1–24
217.9	0.2	0.2–60
218.2	0.2	0.3–80
222.6	0.2	1–280
249.2	0.5	4–800
244.2	1.0	10–2000

Flame Emission

Wavelength 327.4 nm
 Slit width 0.1 nm
 Fuel acetylene
 Support nitrous oxide

Interferences

No interferences have been reported for copper in the air-acetylene flame, but some depression has been noted at high Zn/Cu ratios. This can be minimized by the use of a lean air-acetylene flame or a nitrous oxide-acetylene flame.

