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FOR PerkinElmer AA SPECTROMETERS



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The cathode materials used in Agilent hollow cathode lamps are the highest purity to ensure optimal performance.

Hollow Cathode Lamps

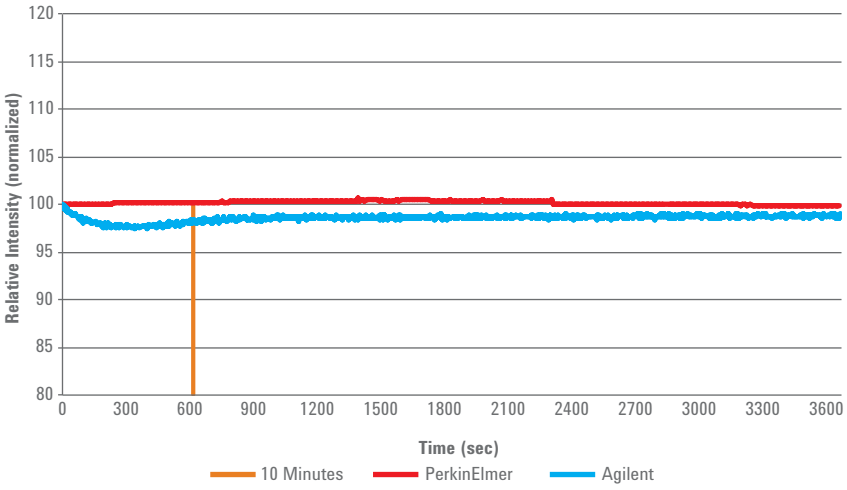
Agilent hollow cathode lamps match the performance of genuine PerkinElmer Lumina lamps

The key requirement for any hollow cathode lamp is to generate a narrow emission line that has sufficient purity, good intensity and low noise to ensure a good calibration can be obtained. Lamps from different manufacturers can have performance differences, which can affect accuracy and reliability of your results.

Agilent lamps for PerkinElmer AA instruments are manufactured in an ISO 9001 environment and use proven processing steps to ensure optimal purity and performance, and long lifetime. Agilent lamps are characterized by good sensitivity and spectral response, combined with stable light output, low noise, and long lifetime.

Warm-up

For best performance and stability, it is always recommended that the lamp is allowed to warm-up and stabilize prior to analysis. Lamps that never stabilize cause drift, and introduce significant measurement errors. Short term stability for Agilent and PerkinElmer lamps for Cu are illustrated – there is no significant difference. After a suitable warm-up time, the emission output is quite stable.



Warm up profiles for the 50 mm coded lamp for copper, measured using the AAnalyst 800. A warm-up period of ~15 minutes is required to achieve stable output with both the genuine PerkinElmer and the Agilent lamps.

Emission intensity

Emission intensity of the hollow cathode lamp is influenced by the selected element/ wavelength, cathode construction and operating current. This also impacts signal-to-noise performance. The greater the intensity – the lower the noise.

The "energy" value at the lamp status display of the PerkinElmer AA instrument confirms the relative intensity for the current lamp. As shown in the table, the "energy" values for Agilent and a genuine PerkinElmer lamp are similar, confirming that both lamps have similar intensity.

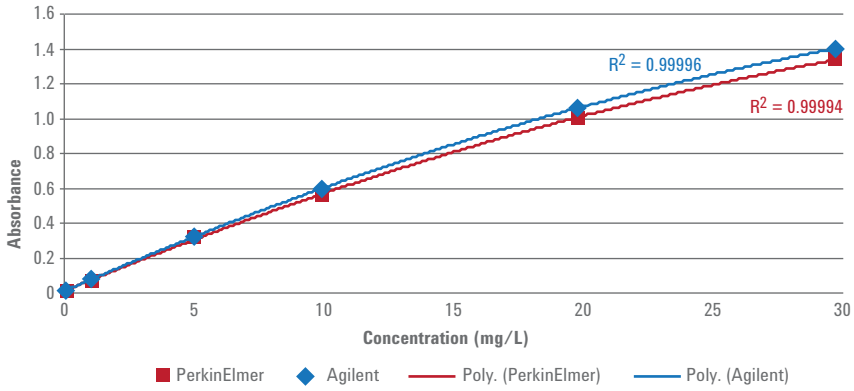
	Energy value for Cu at 324.8 nm
Agilent lamp 1	66
Agilent lamp 2	66
Agilent lamp 3	65
PerkinElmer Lumina lamp	72

Energy values for the 50 mm coded lamp for copper, measured using the AAnalyst 800. Both the genuine PerkinElmer and the Agilent lamps have similar intensity.

Sensitivity and linearity

The recommended operating parameters for each lamp are carefully optimized to ensure the best balance between signal-to-noise performance and lamp life.

Sensitivity and calibration linearity of the Agilent and PerkinElmer lamps was assessed by overlaying the calibration curves obtained for each lamp, operated at the recommended operating current.



Comparison of calibration curves for copper (Cu) at 324.8 nm, measured on the PerkinElmer AAnalyst 800, comparing the genuine PerkinElmer and the Agilent lamps. Performance of both lamps is similar.

With their virtually identical performance, Agilent lamps are excellent alternatives to genuine PerkinElmer lamps.

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ATOMIC ABSORPTION

Agilent 50 mm coded hollow cathode lamps provide economical operation, superb performance and are compatible with all PerkinElmer AA systems. Agilent lamps are manufactured in an ISO 9001 certified environment and use proven processing steps to ensure optimum purity, stable operation, and long lifetime.



Copper Cu single element, 50 mm coded hollow cathode lamp, 8003-0894

TIPS & TOOLS

Did you know you can safely and conveniently return used hollow cathode lamps for recycling using pre-paid shipping pails? This recycling service is currently available in US and Canada. Find out more about the Agilent AA lamp recycling service at

www.agilent.com/chem/aarecycle

Single Element Hollow Cathode Lamps

Description	Similar to OEM Part No.	Agilent Part No.
Aluminum Al 50 mm coded	N3050103	8003-0712
Antimony Sb 50 mm coded	N3050170	8003-0713
Arsenic As 50 mm coded	N3050105	8003-0714
Barium Ba 50 mm coded	N3050109	8003-0715
Beryllium Be 50 mm coded	N3050110	8003-0716
Bismuth Bi 50 mm coded	N3050111	8003-0888
Boron B 50 mm coded	N3050108	8003-0889
Cadmium Cd 50 mm coded	N3050115	8003-0890
Calcium Ca 50 mm coded	N3050114	8003-0891
Chromium Cr 50 mm coded	N3050119	8003-0892
Cobalt Co 50 mm coded	N3050118	8003-0893
Copper Cu 50 mm coded	N3050121	8003-0894
Europium Eu 50 mm coded	N3050124	8003-0897
Gadolinium Gd 50 mm coded	N3050129	8003-0898
Gallium Ga 50 mm coded	N3050128	8003-0899
Germanium Ge 50 mm coded	N3050130	8003-0900
Gold Au 50 mm coded	N3050107	8003-0901
Indium In 50 mm coded	N3050137	8003-0904
Iridium Ir 50 mm coded	N3050138	8003-0905
Iron Fe 50 mm coded	N3050126	8003-0906
Lanthanum La 50 mm coded	N3050141	8003-0907
Lead Pb 50 mm coded	N3050157	8003-0908
Lithium Li 50 mm coded	N3050142	8003-0909

(Continued)

Single Element Hollow Cathode Lamps

Description	Similar to OEM Part No.	Agilent Part No.
Magnesium Mg 50 mm coded	N3050144	8003-0910
Manganese Mn 50 mm coded	N3050145	8003-0911
Mercury Hg 50 mm coded	N3050134	8003-0912
Molybdenum Mo 50 mm coded	N3050146	8003-0913
Neodymium Nd 50 mm coded	N3050150	8003-0914
Nickel Ni 50 mm coded	N3050152	8003-0915
Niobium Nb 50 mm coded	N3050149	8003-0916
Palladium Pd 50 mm coded	N3050158	8003-0917
Phosphorus P 50 mm coded	N3050155	8003-0918
Platinum Pt 50 mm coded	N3050162	8003-0919
Potassium K 50 mm coded	N3050139	8003-0920
Praseodymium Pr 50 mm coded	N3050161	8003-0921
Rhenium Re 50 mm coded	N3050165	8003-0922
Rhodium Rh 50 mm coded	N3050166	8003-0923
Samarium Sm 50 mm coded	N3050174	8003-0924
Scandium Sc 50 mm coded	N3050171	8003-0925
Selenium Se 50 mm coded	N3050172	8003-0926
Silicon Si 50 mm coded	N3050173	8003-0927
Silver Ag 50 mm coded	N3050102	8003-0928
Sodium Na 50 mm coded	N3050148	8003-0929
Strontium Sr 50 mm coded	N3050176	8003-0930
Tantalum Ta 50 mm coded	N3050177	8003-0931
Tellurium Te 50 mm coded	N3050180	8003-0932
Thallium Tl 50 mm coded	N3050183	8003-0934
Tin Sn 50 mm coded	N3050175	8003-0936
Titanium Ti 50 mm coded	N3050182	8003-0937
Tungsten W 50 mm coded	N3050187	8003-0938
Vanadium V 50 mm coded	N3050186	8003-0939
Yttrium Y 50 mm coded	N3050189	8003-0941
Zinc Zn 50 mm coded	N3050191	8003-0942
Zirconium Zr 50 mm coded	N3050192	8003-0943

LEARN MORE

Comparing Agilent Lamps for PerkinElmer AA systems with PerkinElmer Lumina Lamps (Agilent publication 5991-6508EN).

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Nebulizers and Components

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
PinAAcle	Capillary assembly for stainless steel nebulizer	N3160113	8003-0827
PinAAcle	Nebulizer assembly, stainless steel, for aqueous solutions	N3160143	8003-0828
PinAAcle	O-ring, for high-sensitivity nebulizer with Pt/Ir capillary	B0507708	8003-0862
PinAAcle	Capillary assembly, for metal body nebulizers	03030354	8003-0864
PinAAcle	Nebulizer, high-sensitivity, with Pt/Ir capillary	N3160144	8003-0950
PinAAcle and AAnalyst 100/200/300/400/700/800	Impact bead, for high-sensitivity nebulizer with Pt/Ir or tantalum capillary and earlier AA models	B0505086	8003-0860
PinAAcle and AAnalyst 200/400	O-ring, for high-sensitivity nebulizer with Pt/Ir capillary	09902015	8003-0861
PinAAcle and AAnalyst 200/400	Spring, for high-sensitivity nebulizer with Pt/Ir capillary	09920483	8003-0865

(Continued)

Exploded view of Nebulizer assembly, 8003-0828



1. Nebulizer adjusting nut
2. Nebulizer capillary, 8003-0864
3. Nebulizer spring, 8003-0823
4. Nebulizer body O-rings, 8003-0861
5. Nebulizer venturi
   Nebulizer venturi O-ring (black), 8003-0825
6. Nebulizer endcap, 8003-0845
   O-ring that seals the nebulizer to the end cap (red), 8003-0824



Nebulizer assembly, stainless steel, 8003-0828



Impact bead, for high-sensitivity nebulizer, 8003-0860

Nebulizers and Components

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
All PE AA systems	Nebulizer cleaning wire, alloy, 5/pk	03030135	9910024700
All PE AA systems	Nebulizer capillary tubing, polyethylene, 10 ft (3 m), 0.023 inch (0.6 mm) id x 0.038 inch (0.97 mm) od, used with Cross-Flow and high solids nebulizer	09908265	8003-0406
AAnalyst 200/400	Nebulizer, high-sensitivity, with Pt/Ir capillary	N3150188	8003-0837
AAnalyst 100/200/300/400/700/800	Capillary assembly, for corrosion-resistant nebulizer	03030402	8003-0818
AAnalyst 100/200/300/400/700/800	Nebulizer assembly, corrosion-resistant	03030404	8003-0819
AAnalyst 100/200/300/400/700/800	Nebulizer assembly, stainless steel, for aqueous solutions	03030352	8003-0822
AAnalyst 100/200/300/400/700/800	O-ring kit, for metal body nebulizer assemblies	N9300065	8003-0826
AAnalyst 100/300/700/800	Spring, for GemTip nebulizer	09902473	8003-0830
AAnalyst 100/300/700/800	GemTip nebulizer assembly, high-sensitivity	N0370393	8003-0831
AAnalyst 100/300/700/800	GemTip nebulizer assembly	N0370394	8003-0832
AAnalyst 100/300/700/800	Spring, for high-sensitivity nebulizer with Pt/Ir capillary	B0165332	8003-0833
AAnalyst 100/300/700/800	O-ring, for high-sensitivity nebulizer with Pt/Ir capillary	B0506143	8003-0834
AAnalyst 100/300/700/800	O-ring, for high-sensitivity nebulizer with tantalum capillary	B0190672	8003-0835
AAnalyst 100/300/700/800	Nebulizer, high-sensitivity, with Pt/Ir capillary	B0505480	8003-0836
AAnalyst 100/300/700/800	O-ring, 9.25 mm id, 1.78 mm cross section (2-012), for high-sensitivity nebulizer with Pt/Ir capillary	B0174378	8003-0863
AAnalyst 200/400 and PinAAcle 900	Nebulizer tubing assembly, for high-sensitivity nebulizer with Pt/Ir capillary	B3150458	8003-0409
AAnalyst 100/200/300/400/ 700/800 and PinAAcle 900	Capillary assembly, for metal body nebulizers Capillary assembly, for high-sensitivity nebulizer with Pt/Ir capillary	03030354	8003-0864
700/800 and PinAAcle 900	Spring, for metal body nebulizer assemblies	03031806	8003-0823
Capillary assembly, for high-sensitivity nebulizer with Pt/Ir capillary 03030354 8003-0864	O-ring, 0.208 inch id, 0.070 inch cross section, for stainless steel nebulizer assembly	09902239	8003-0824
AAnalyst 100/200/300/400/ 700/800 and PinAAcle	O-ring, 0.176 inch id x 0.070 inch cross section, for stainless steel nebulizer assembly	09902005	8003-0825



Nebulizer cleaning wire, alloy, 8003-0396



Nebulizer capillary tubing, polyethylene, 8003-0406

Burner System Components

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Parts for PinAAcle Systems			
PinAAcle 900	End cap latch assembly	N3160107	8003-0838
PinAAcle 900	Burner drain assembly for organics	N3150232	8003-0854
PinAAcle	O-ring, end cap, 0.312 x 0.070 inch (4 required)	09200253	8003-0842
PinAAcle	End cap assembly, for metal body nebulizers	N3160102	8003-0845
PinAAcle	End cap assembly, for plastic body nebulizers	N3160111	8003-0847
PinAAcle	Burner drain assembly, with tubing and drain interlock, drain bottle not included	N0400058	8003-0857
PinAAcle	Burner mixing chamber assembly	N3160506	8003-0944
Parts for PinAAacle & AAnalyst Systems			
PinAAcle and AAnalyst 100/200/300/400/700/800	Flow spoiler	00572561	8003-0841
PinAAcle and AAnalyst 100/200/300/400/700/800	O-ring, end cap, Viton, standard	09902147	8003-0843
PinAAcle and AAnalyst 100/200/300/400/700/800	O-ring, 1/8 in x 3 mm id, for seal plug in end cap assembly for metal body nebulizers	09902236	8003-0853
Parts for AAnalyst Systems			
AAnalyst 100/200/300/400/700/800	Clamping ring, for burner system	N0401171	8003-0840
AAnalyst 100/200/300/400/700/800	O-ring, end cap, Kalrez, organics/aqueous	09921044	8003-0844
AAnalyst 100/200/300/400/700/800	End cap assembly, for metal body nebulizers	00570984	8003-0820
AAnalyst 100/200/300/400/700/800	End cap assembly, for plastic body nebulizers	N0370392	8003-0848
AAnalyst 100/200/300/400/700/800	Drain tubing, Tygon, with FEP lining	02507987	8003-0850
AAnalyst 100/200/300/400/700/800	Seal plug, Pyrex, for impact bead used with end cap assembly for metal body nebulizers	00572624	8003-0851

(Continued)



Burner mixing chamber assembly, 8003-0944



Flow spoiler, 8003-0841

LEARN MORE

Determination of Essential Elements in Rice Flour and Spices Using Flame AA (Agilent publication 5991-6493EN).

Burner System Components

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Parts for AAnalyst Systems			
AAnalyst 100/200/300/400/700/800	O-ring, 1/4 inch x 6 mm id, for end cap assembly for metal body nebulizers	09902240	8003-0852
AAnalyst 100/200/300/400/700/800	Burner drain assembly for organics	N3150230	8003-0855
AAnalyst 100/200/300/400/700/800	Burner drain assembly, with tubing and drain interlock, drain bottle not included	N2011074	8003-0856
AAnalyst 100/200/300/400/700/800	Burner mixing chamber assembly	00570948	8003-0945

Burner Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
AAnalyst 100/200/300/400/700/800	Burner gasket kit for end cap assembly for metal body nebulizers	00470988	8003-0395
AAnalyst 100/200/300/400/700/800	O-ring kit, Viton for burner head	09902219	8003-0397
AAnalyst 100/200/300/400/700/800	Gasket (O-ring), Corkprene, for burner end cap organics	00472014	8003-0407
PinAAcle and AAnalyst	O-ring, burner head, 24.99 x 3.53 mm	09200079	8003-0849
PinAAcle and AAnalyst 100/200/300/400/700/800	Burner head cleaning tool	03031573	8003-0858

Burners

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
PinAAcle and AAnalyst 100/200/300/400/700/800	Burner head, single-slot, 5 cm, for nitrous oxide-acetylene or air-acetylene operation	N0400100	8003-0417
PinAAcle and AAnalyst 100/200/300/400/700/800	Burner head, single-slot, 5 cm, for air-acetylene operation	N0400101	8003-0418
PinAAcle and AAnalyst 100/200/300/400/700/800	Burner head, single-slot, 10 cm, for air-acetylene operation	N0400102	8003-0419



Single-slot 10 cm burner for air-acetylene operation, 8003-0419



Single-slot 5 cm burner for nitrous oxide-acetylene operation, 8003-0417

TIPS & TOOLS

The best way to clean the burner is to polish the inside of the burner slot using burner cleaning strips and a liquid metal polish. Then clean the outside of the burner slot with a clean rag. Then sonicate for a few minutes in a detergent solution, rinse, and dry. Ensure the burner is dry before refitting and igniting the flame.

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Graphite Components

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Graphite Tubes and Platforms			
THGA Graphite Furnace Systems	Graphite tube, standard, THGA, with end cap, 5/pk Recommended for improved characteristic mass with volatile and medium refractory elements (not recommended for refractory elements such as V or Ba).	B3000653	8003-0958
THGA Graphite Furnace Systems	Graphite tube, standard, THGA, with integrated platform, 5/pk	B3000641	8003-0410
THGA Graphite Furnace Systems	Graphite tube, standard, THGA, with integrated platform, 20/pk	B0504033	8003-0959
HGA-900/850/800/ 700/600/300 Furnaces	Graphite tube, pyrocoated, HGA, with integrated spherically shaped platform that accommodates up to 50 µL sample, for volatile and nonvolatile refractory elements, 5/pk	B3001262	8003-0416
HGA-900/850/800/ 700/600/300 Furnaces	Graphite tube, pyrocoated, with grooves for L'vov platforms (platform not included), 10/pk	B0121092	8003-0421
HGA-900/850/800/ 700/600/300 Furnaces	L'vov platforms, for use with HGA tubes that have internal grooves, 20/pk	B3001256	8003-0422
HGA-900/850/800/ 700/600/300 Furnaces	L'vov platforms, for use with HGA tubes that have internal grooves, 10/pk	B0121091	8003-0960
HGA-900/850/800/700/ 600/300 Furnaces	Graphite tube, pyrocoated, HGA, 10/pk Not compatible with L'vov platforms.	B0135653	8003-0962
HGA-900/850/800/700/ 600/300 Furnaces	Graphite tube, pyrocoated, HGA, with advanced platform, 5/pk	N9307834	8003-0954
Contact Cylinders			
THGA Graphite Furnace Systems	Contact cylinder, graphite, standard, THGA, 1 set	B0504035	8003-0401
THGA Graphite Furnace Systems	Modified THGA contact cylinder set With modified injection port area to help minimize condensation and improve analytical performance with difficult matrices.	B3002103	8003-0949
HGA-900/850/800/700/ 600/300 Furnaces	Contact cylinder, HGA, 1 set Includes left-hand contact, right-hand contact and shield ring.	B0128495	8003-0405
Zeeman HGA-900/850/800/ 700/600/300 Furnaces	Contact cylinder, Zeeman, HGA, 1 set	B0116823	8003-0961

(Continued)



Graphite tube, standard, THGA, 8003-0410



Graphite tube, pyrocoated, HGA, with integrated platform, 8003-0416



Graphite tube, pyrocoated, HGA, 0800-0962

Graphite Components

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Tools and Other Supplies			
HGA-900/850/800/700/600/300 Furnaces	Insertion tool for L'vov platforms	B0112657	8003-0423
THGA Graphite Furnace Systems	Spare graphite tip, for fume extraction system	B0506722	8003-0955
THGA Graphite Furnace Systems	Filter cartridge, THGA AA600 Fume Extractor, 50/pk	B0509065	8003-0956
THGA Graphite Furnace Systems	O-ring (behind contact cylinder, front and back)	B0500748	8003-0957

Graphite Furnace Autosamplers

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
AS-71/72/800/900	Autosampler cups, 1.2 mL, polyethylene, 2,000/pk	B0510397	6610025900
AS-40/AS-60/AS-70/AS-71/AS-72 / AS-800/AS-900	Autosampler cups, 2.0 mL conical, polyethylene, 1,000/pk	B0087056	9910028200
AS-60/AS-70/AS-71/AS-72/AS-800/AS-900	PTFE sampling capillaries, solvent- and acid-resistant, for reduced contamination	B0129258	8003-0413

Sample Introduction

Description	Similar to OEM Part No.	Agilent Part No.
Y connector	09920179	8003-0414



Contact cylinder, graphite, standard, 8003-0401

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Determination of Essential Elements and Minerals In Drinking Water Using Flame AA (Agilent publication 5991-6494EN).

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Autosampler Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Flame AA sampling probe assembly, corrosion-resistant, 0.6 mm id. Includes probe assembly, screw fitting and capillary tubing assembly, standard probe supplied with the autosampler.	B3001770	8003-0622
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Flame AA autosampling probe assembly, 0.6 mm id, stainless steel. Includes probe assembly, screw fitting and capillary tubing assembly.	B3000159	8003-0615
AS-90/90A/90plus/91/93plus/S10 Autosamplers	FIAS sampling probe assembly, 0.6 mm id, stainless steel. Includes probe assembly, screw fitting, and capillary tubing assembly.	B3000160	8003-0616
AS-90/90A/90plus/91/93plus/S10 Autosamplers	FIAS standard sampling probe assembly, 1.0 mm id, stainless steel. Includes probe assembly, screw fitting, and capillary tubing assembly.	B3000161	8003-0617
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Sampling probe, stainless steel with screw fitting. Probe only. Requires capillary tubing assembly.	B3000152	8003-0618
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Capillary tubing assembly for AS stainless steel probe, 0.6 mm id for flame AA, 1 m, with fitting, red.	B3000157	8003-0619
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Capillary tubing assembly, for AS stainless steel probe, 0.6 mm id for use with FIAS, 1 m. Includes 2 fittings, red.	B3000158	8003-0620

(Continued)







Autosampler Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Capillary tubing assembly for AS stainless steel probe, 1.0 mm id for use with FIAS, 1 m. Includes 2 fittings, blue.	B0191060	8003-0621
AS-90/90A/90plus/91/93plus/S10 Autosamplers	FIAS sampling probe assembly, corrosion-resistant, 0.6 mm id Includes probe assembly, screw fitting, and capillary tubing assembly.	B3001771	8003-0623
AS-90/90A/90plus/91/93plus/S10 Autosamplers	FIAS sampling probe assembly, corrosion-resistant, 1.0 mm id Includes probe assembly, screw fitting, and capillary tubing assembly.	B3001772	8003-0624
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Corrosion-resistant sampling probe, 0.6 mm id, probe only, excluding capillary tubing assembly with FEP tube and screw fitting	B3000055	8003-0625
AS-90/90A/90plus/91/93plus/S10	Cleaning wire, for autosampler probe	B0505962	8003-0629
AS-93plus/S10	Pump tubes for autosampler rinse, 2.79 mm id, purple/white, 6/pk	B3140721	8003-0645
AS-93plus/S10	Pump tubes for autosampler rinse, 1.14 mm id, red/red, 6/pk	B3140730	8003-0646
AS-90/90A/90plus/91/93plus/S10 Autosamplers	Corrosion-resistant sampling probe, 1.0 mm id, probe only, excluding capillary tubing assembly with FEP tube and screw fitting	B3001769	8003-0627
AS-93plus/S10 Autosampler	Adapter M with 1/4 in (6.4 mm) external thread, 4 mm od nipple	B0507919	8003-0665
ASX 500	Autosampler probe, 12 inch x 0.5 mm id, blue band	N0774088	G3286-80102







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FIMS/FIAS

Flow Injection System Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Adapters with Internal Thread			
FIAS-100, FIAS-400, FIAS-400MS, FIAS-200	Nipple A, 1.8 mm od	B0193342	8003-0653
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Nipple B, 3.3 mm od	B0506716	8003-0654
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Nipple C, 4 mm od	B0196850	8003-0655
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Nipple E for the quartz cell	B0196857	8003-0656
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Nipple F, 0.7 mm od, Pt/Ir capillary	B0193873	8003-0657
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Nipple G, to connect tubes to the preconcentration accessory	B0501580	8003-0658
Adapters with External Thread			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Adapter K, 1/4 inch (6.4 mm) external thread, for 1.8 mm od nipple	B0507918	8003-0663
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Adapter L, 1/4 inch (6.4 mm) external thread, for 2.8 mm od nipple	B0507920	8003-0664
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Adapter N, 1/4 inch (6.4 mm) external thread, for 0.7 mm od Pt/Ir capillary nipple	B0507949	8003-0666
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Adapter M, 1/4 in (6.4 mm) external thread, for 4 mm od nipple	B0507919	8003-0665
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Screw plug, 1/4 inch (6.4 mm) external thread	B0507921	8003-0667
Connectors			
FIAS/ELAN 9000/6x00/DRC	Ferrule, front, 1/4 inch	09903456	8003-0592
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Connector, type 1A, with nipples, for 1.7 to 3.2 mm id tubes	B0199233	8003-0598
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Connector, type 1B with nipple, for 2.4 to 3.2 mm id tubes	B0196882	8003-0659
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Connector, type II with 1/4 inch (6.4 mm) internal screw thread	B0196704	8003-0660
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	T-piece, type IIIA, with nipples, for 1.5 to 2.5 mm id tubes	B0199035	8003-0661
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	T-piece, type IIIB, with nipples, for 3.5 to 4.5 mm id tubes	B0198201	8003-0662

(Continued)



Adapter K, 1/4 inch (6.4 mm) external thread, for 1.8 mm od nipple, 8003-0663



Connector, type 1A, with nipples, for 1.7 to 3.2 mm id tubes, 8003-0598



Connector, type 1B, with nipples, for 2.4 to 3.2 mm id tubes, 8003-0659



Connector, type II with 1/4 inch (6.4 mm) internal screw thread, 8003-0660

Flow Injection System Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Mixing/Separation Assembly			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Complete modular mixing/separation assembly Includes 2 mixing manifolds with tubing adapters, gas liquid separator with PTFE membrane, 5 spare PTFE membranes, PTFE tube (110 mm), and PTFE tube (300 mm).	B0507957	8003-0668
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Modular "building block" type mixing manifold Includes mixing channel and 3 connections, 2 inlet and 1 outlet. Made from chemically-resistant plastic. Several of these blocks can be connected in series for enhanced mixing capabilities.	B0507962	8003-0669
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Modular "building block" type gas/liquid separator Made from chemically-resistant plastic. An exchangeable PTFE membrane in the screw cap prevents liquid from being carried into the quartz cell when working with strong foaming samples.	B0507959	8003-0670
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Mixing manifold, for gas/liquid separator	B0187258	8003-0674
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Gas/liquid separator, glass	B0193772	8003-0671
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Gas/liquid separator holder for glass separator	B0509479	8003-0672
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Membrane, PTFE, 50/pk	B0508306	8003-0673
Sample Loops			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Sample loop, 200 µL	B0194048	8003-0679
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Sample loop, 500 µL	B0194049	8003-0680
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Sample loop, 1,000 µL	B0501000	8003-0681

(Continued)



Complete modular mixing/separation assembly for FIAS, 8003-0668



FIAS sample loop, 500µL, 8003-0680



FIAS Sample loop, 1,000 µL, 8003-0681

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Flow Injection System Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Peristaltic Pump Tubing			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Peristaltic pump tubing, 3-stop, 0.76 mm id, black/black	B0506058	8003-0682
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Peristaltic pump tubing, 3-stop, 1.14 mm id, red/red	B0193160	8003-0683
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Peristaltic pump tubing, 3-stop, 1.52 mm id, yellow/blue	B0193161	8003-0684
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Peristaltic pump tubing, 3-stop, 2.06 mm id, violet/violet	B0199034	8003-0685
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Peristaltic pump tubing, 3-stop, 3.18 mm id, black/white	B0508310	8003-0686
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Peristaltic pump tubing, 3-stop, solvent-resistant, 1.02 mm id, white/white	B0507692	8003-0687
PTFE Tubing			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, PTFE, 1.75 mm id, 1m	B0017998	8003-0411
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, PTFE, 1.0 mm id, 1m	B0029792	8003-0412
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, PTFE, 0.35 mm id, 1 m	B0506060	8003-0688
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, PTFE, 0.5 mm id, 1 m	B0507020	8003-0689
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, PTFE, 0.7 mm id, 1 m	B0507021	8003-0690
PTFE Tubing Assemblies			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing assembly, PTFE, 0.35 mm id, 60 mm, white	B0501594	8003-0691
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing assembly, PTFE, 1.0 mm id, 110 mm, blue	B0191058	8003-0692
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing assembly, PTFE, 1.0 mm id, 300 mm, blue	B0198097	8003-0693
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing assembly, PTFE, 1.0 mm id, 700 mm, blue	B0191059	8003-0694
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing assembly, PTFE, 1.75 mm id, 250 mm, black	B0198099	8003-0695
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing assembly, PTFE, 1.75 mm id, 450 mm, black	B0198100	8003-0696
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Capillary tubing assembly for AS stainless steel probe, 1.0 mm id, for use with FIAS, 1 m. Includes 2 fittings, blue.	B0191060	8003-0621
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Reactor, 3-dimensional, 0.35 mm id, two flanged ends	B0501595	8003-0697

(Continued)



Complete cell assembly for FIAS, 8003-0967





Flow Injection System Supplies

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
Silicone Tubing			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, silicone, 5 mm id x 1 m, no fittings	B0018283	8003-0698
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, silicone, 3 mm id x 1 m for Amalgamation System	B0070126	8003-0699
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tubing, silicone, 3 m, for FIMS cell exhaust outlet	B0046948	8003-0700
Other Supplies			
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Tool, for screw connectors	B0501315	8003-0675

FIAS/FIMS Cell Parts

Instrument	Description	Similar to OEM Part No.	Agilent Part No.
FIAS-100/400	Cell and windows, complete	B0507486	8003-0967
FIAS-100/400	Cell only, no windows	B0507487	8003-0968
FIMS-100, FIMS-400, FIAS-100 or FIAS-400	Window, quartz	B0066549	8003-0966
FIMS-100/400	Cell and windows, complete	B0510334	8003-0969
FIMS-100/400	Cell only, no windows	B0510370	8003-0970
FIMS-100/400	Hg lamp, for FIMS-100	B3000243	8003-0971
FIMS-100/400	Hg filter replacement, for Hg scrubber	B3000274	8003-0972



Tubing, silicone, 5 mm id x 1 m, for FIAS, 8003-0698



Tubing, silicone, 3 m for FIMS cell exhaust outlet, 8003-0700

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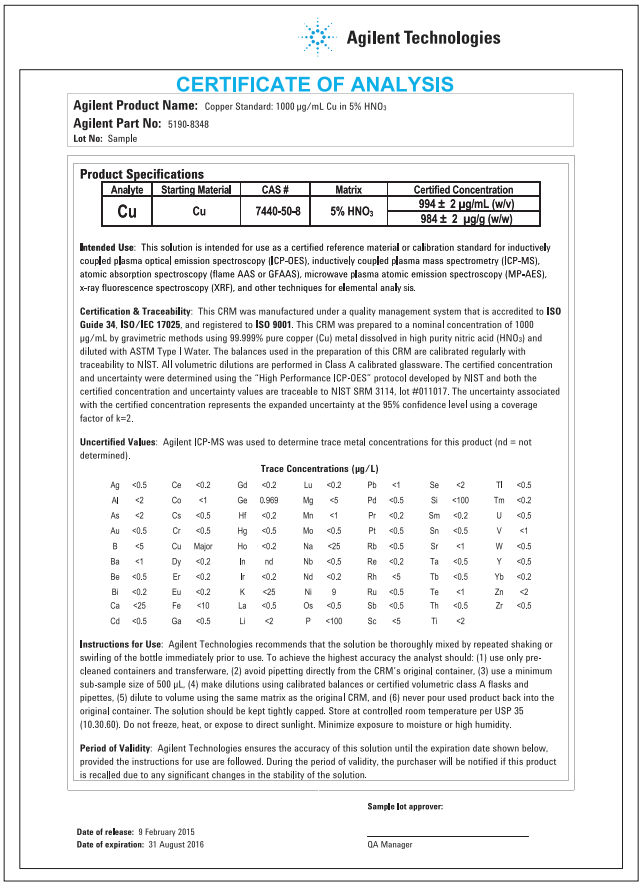
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CERTIFICATE OF ANALYSIS

Agilent Product Name: Copper Standard: 1000 µg/mL Cu in 5% HNO_3
Agilent Part No: 5190-8348
Lot No: Sample

Product Specifications

Analyte	Starting Material	CAS #	Matrix	Certified Concentration
Cu	Cu	7440-50-8	5% HNO_3	994 ± 2 µg/mL (w/v) 984 ± 2 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), atomic absorption spectroscopy (flame AAS or GFAAS), microwave plasma atomic emission spectroscopy (MP-AES), x-ray fluorescence spectroscopy (XRF), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured under a quality management system that is accredited to **ISO Guide 34**, **ISO/IEC 17025**, and registered to **ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure copper (Cu) metal dissolved in high purity nitric acid (HNO_3) and diluted with ASTM Type I Water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST and both the certified concentration and uncertainty values are traceable to NIST SRM 3114, lot #011017. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Uncertified Values: Agilent ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tl	<0.5
Al	<2	Co	<1	Ge	0.969	Mg	<5	Pd	<0.5	Si	<100	Tm	<0.2
As	<2	Cs	<0.5	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	U	<0.5
Au	<0.5	Cr	<0.5	Hg	<0.5	Mo	<0.5	Pt	<0.5	Sn	<0.5	V	<1
B	<5	Cu	Major	Ho	<0.2	Na	<25	Rb	<0.5	Sr	<1	W	<0.5
Ba	<1	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Y	<0.5
Be	<0.5	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<5	Tb	<0.5	Yb	<0.2
Bi	<0.2	Eu	<0.2	K	<25	Ni	9	Ru	<0.5	Te	<1	Zn	<2
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Th	<0.5	Zr	<0.5
Cd	<0.5	Ga	<0.5	Li	<2	P	<100	Sc	<5	Ti	<2		

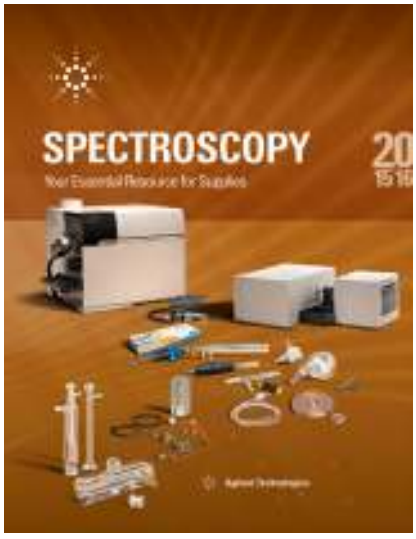
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