



# Elemental Scientific

2013 Catalog  
ESI Products and Consumables



## Products and Consumables For Spectro EOP / SOP



## Quartz Nebulizers

Description	ESI P/N
MEINHARD® SilQ+ Ultra high purity quartz nebulizer, low internal volume, 0.5 mL/min @ 50 psi, with FG PFA gas fitting and F2 sample uptake line	SILQ-50
MEINHARD® Type C concentric quartz nebulizer, polished, recessed (0.5 mm) capillary, low background, high solids, 1 mL/min and 1 L/min @ 30 psi	TQ-30-C1



SILQ-50  
SilQ+ Quartz  
Nebulizer

## Glass Nebulizers

Description	ESI P/N
MEINHARD® Type A glass nebulizer, lapped flush nozzle, borosilicate glass, general purpose, 1 mL/min and 1 L/min @ 30PSI	TR-30-A1
MEINHARD® Type K glass nebulizer, 2 mL/min @ 30 PSI	TR-30-K2
MEINHARD® Type C glass nebulizer, 1 mL/min, polished, recessed (0.5 mm) capillary, high solids, 1 mL/min and 1 L/min @ 30 PSI	TR-30-C1



TR-30-K2  
Type C glass  
Nebulizer

## PEEK Nebulizers

Description	ESI P/N
PEEK MiraMist nebulizer	PMM4000



PMM4000  
PEEK MiraMist Nebulizer

## PFA Nebulizers

Description	ESI P/N
MicroFlow PFA-ST self-aspirating nebulizer with external 1/4-28 threaded connector. Includes one 400µl/min capillary.	ES-2040-28
PFA MicroFlow high solids large bore nebulizer with external 1/4-28 threaded connector. Includes one 400µl/min capillary.	ES-2030-28



ES-2040-28  
PFA-ST Nebulizer

## Poly-Pro Nebulizer

Description	ESI P/N
PolyPro-ST self-aspirating nebulizer with external 1/4-28 threaded connector. Includes one 400µl/min capillary.	ES-4040-28



ES-4040-28  
PolyPro-ST Nebulizer

## Nebulizer Cleaner

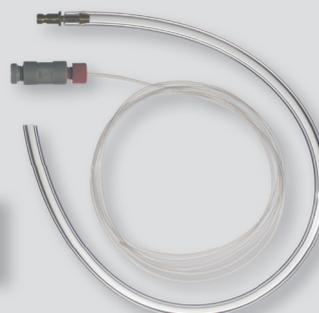
Description	ESI P/N
Pearl Nebulizer Cleaner for all quartz and glass concentric nebulizers	PRL-01



PRL-01  
Pearl Nebulizer  
Cleaner

## Liquid Inlet Fitting

Description	ESI P/N
Liquid inlet fitting and argon tubing with quick disconnect for TR-30-C1	MM175100



MM175100  
Liquid Inlet  
Fitting

### pergo Nebulizer Gas Humidifier

Description	ESI P/N
pergo argon high solids accessory without nebulizer. Includes gas line connector kit.	PRG-01



ML175031  
Pyrex Socket Adapter

### Cyclonic Spray Chambers

Description	ESI P/N
Cyclonic spray chamber, top socket, pump drain	ML175026
Cyclonic spray chamber, top socket, pump drain with Easy Seal threaded inlet and Teflon® PFA cap	ML175026ES
Cyclonic spray chamber, end-on plasma (EOP), pump drain	ML175026EOP
Cyclonic spray chamber, top socket, pump drain with Easy-Seal threaded inlet and Teflon® PFA Cap	ML175026EOP-ES
Quartz Cyclonic Spray Chamber, Socket	ML175026Q
Quartz Cyclonic Spray Chamber, Jacketed, Threaded Ports	ML175026QJ
Quartz Cyclonic Spray Chamber for PC <sup>3</sup> Peltier cooler	ES-3167-1011



ML175026EOP  
Cyclonic Spray Chamber

### PC<sup>3</sup> Peltier Cooler

Description	ESI P/N
PC <sup>3</sup> Peltier cooler for Spectro EOP. Includes a quartz cyclonic spray chamber.	ES-4167-1011



ES-4167-1011  
PC<sup>3</sup> Peltier Cooler

### Quartz Injectors, Demountable

Description	ESI P/N
Quartz injector, 1.5 mm	ML175021
Quartz injector, 1.8 mm	ML175022
Quartz injector, 2.5 mm	ML175023

See page 4 for quartz torch, demountable injector (ES-1702-EOP)



ML175021  
Quartz Injector

### Quartz One-Piece Torches

Description	ESI P/N
Quartz torch, end-on plasma (EOP), Axial, flared end, fixed 2.5 mm injector	ML175040
Quartz torch, end-on plasma (EOP), Axial, flared end, fixed 2.2 mm injector	ML175041
Quartz torch, end-on plasma (EOP), Axial, flared end, fixed 1.8 mm injector	ML175042
Quartz torch, end-on plasma (EOP), Axial, with sheath gas, fixed 3.2 mm injector	ML175047
Quartz torch, end-on plasma (EOP), Axial, with sheath gas, fixed 2.5 mm Injector	ML175048



ML175040  
Quartz torch with  
2.5 mm injector

## HF Resistant

### Quartz Torch, Demountable Injector

Description	ESI P/N
Quartz torch, end-on plasma (EOP), Axial, demountable with flare, 80 mm Length	ES-1702-EOP



ES-1702-EOP  
Quartz torch

### Sapphire Injectors, Demountable

Description	ESI P/N
Sapphire injector (EOP), HF resistant, 1.5 mm	ES-1980-1150
Sapphire injector (EOP), HF resistant, 1.8 mm	ES-1980-1180
Sapphire injector (EOP), HF resistant, 2.5 mm	ES-1980-1250



ES-1980-0180  
Sapphire Injector

### PFA Spray Chamber Kit

Description	ESI P/N
HF resistant PFA spray chamber kit. Includes high sample flow PFA spray chamber with barbed exit port, polypropylene adapter for Spectro cross-flow nebulizer, ES-2100-2479 drain line, fittings, PFA barbed connector and 25 cm long tygon tubing 1/4" i.d.	ES-2100-2477



ES-2100-2477  
PFA Spray Chamber Kit

### PFA Spray Chamber

Description	ESI P/N
47 mm HF resistant PFA spray chamber with PFA PureCap endcap with additional gas port	ES-2256-0470



ES-2256-0470  
47 mm PFA Spray Chamber

## Tubing and Gas Connectors

Description	ESI P/N
Tubing and gas connectors	MM175055



MM175055  
Tubing and gas connectors

## Flared Peristaltic Pump Tubing

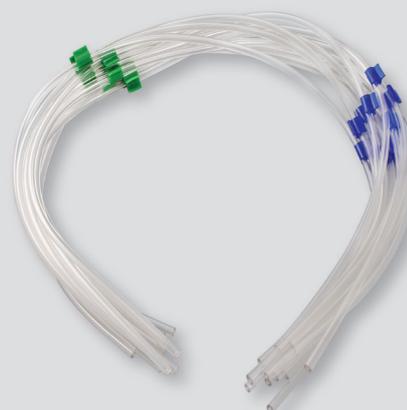
Description	ESI P/N
2-stop Tygon pump tubing, 0.38 mm ID, 2.0 mm flared (orange/green), 12 pc	ES-4397-1038
2-stop Tygon pump tubing, 0.89 mm ID, 2.0 mm flared, 151 mm bridge distance (orange/orange), 12 pc	ES-4397-1089
2-stop Tygon pump tubing, 1.30 mm ID, 2.0 mm flared, 151 mm bridge distance (grey/grey), 12 pc	ES-4397-1130



ES-4397-1089  
2.0 mm Flared  
Pump Tubing

## Peristaltic Pump Tubing

Description	ESI P/N
2-stop Tygon pump tubing, 1.30 mm ID, 151 mm bridge distance (grey/grey), 12 pc	ES-4398-1130
2-stop Tygon pump tubing, 1.75 mm ID, 151 mm bridge distance (blue/green), 12 pc	ES-4398-1175



ES-4398-1175  
1.75 mm Pump  
Tubing

## Quartz Nebulizers

Description	ESI P/N
MEINHARD® SiIQ+ Ultra high purity quartz nebulizer, low internal volume, 0.5 mL/min @ 50 psi, with FG PFA gas fitting and F2 sample uptake line	SILQ-50
MEINHARD® Type C concentric quartz nebulizer, polished, recessed (0.5 mm) capillary, low background, high solids, 1 mL/min and 1 L/min @ 30 psi	TQ-30-C1



SILQ-50  
SiIQ Quartz  
Nebulizer

## Glass Nebulizers

Description	ESI P/N
MEINHARD® Type A glass nebulizer, lapped flush nozzle, borosilicate glass, general purpose, 1mL/min and 1L/min @ 30PSI	TR-30-A1
MEINHARD® Type K glass nebulizer, 2 mL/min @ 30 PSI	TR-30-K2
MEINHARD® Type C glass nebulizer, 1 mL/min, polished, recessed (0.5 mm) capillary, high solids, 1 mL/min and 1 L/min @ 30 PSI	TR-30-C1



TR-30-K2  
Type C glass  
Nebulizer

## PEEK Nebulizers

Description	ESI P/N
PEEK MiraMist nebulizer	PMM4000



PMM4000  
PEEK MiraMist Nebulizer

## PFA Nebulizers

Description	ESI P/N
MicroFlow PFA-ST self-aspirating nebulizer with external 1/4-28 threaded connector. Includes one 400µl/min capillary.	ES-2040-28
PFA MicroFlow high solids large bore nebulizer with external 1/4-28 threaded connector. Includes one 400µl/min capillary.	ES-2030-28



ES-2040-28  
PFA-ST Nebulizer

## Poly-Pro Nebulizer

Description	ESI P/N
PolyPro-ST self-aspirating nebulizer with external 1/4-28 threaded connector. Includes one 400µl/min capillary.	ES-4040-28



ES-4040-28  
PolyPro-ST Nebulizer

## Nebulizer Cleaner

Description	ESI P/N
Pearl Nebulizer Cleaner for all quartz and glass concentric nebulizers	PRL-01



PRL-01  
Pearl Nebulizer  
Cleaner

## Liquid Inlet Fitting

Description	ESI P/N
Liquid inlet fitting and argon tubing with quick disconnect for TR-30-C1	MM175100



MM175100  
Liquid Inlet  
Fitting

### pergo Nebulizer Gas Humidifier

Description	ESI P/N
pergo argon high solids accessory without nebulizer. Includes gas line connector kit.	PRG-01



ML175031  
Pyrex Socket Adapter

### Spray Chambers

Description	ESI P/N
Spray chamber, slurry	ML175010
Spray chamber, upward conical open	ML175012
Spray chamber, large double pass	ML175014
Spray chamber, large, double pass, jacketed, threaded ports	ML175018



ML175014  
Double Pass  
Spray Chamber

### Cyclonic Spray Chambers

Description	ESI P/N
Cyclonic spray chamber, top socket, pump drain	ML175026
Cyclonic spray chamber, top socket, pump drain with Easy Seal threaded inlet and Teflon® PFA cap	ML175026ES
Quartz Cyclonic Spray Chamber, Socket	ML175026Q
Quartz Cyclonic Spray Chamber, Jacketed, Threaded Ports	ML175026QJ
Quartz Cyclonic Spray Chamber for PC <sup>3</sup> Peltier cooler	ES-3167-1001



ML175026  
Cyclonic Spray  
Chamber

### PC<sup>3</sup> Peltier Cooler

Description	ESI P/N
PC <sup>3</sup> Peltier cooler for Spectro SOP. Includes a quartz cyclonic spray chamber.	ES-4167-1001



ES-4167-1001  
PC<sup>3</sup> Peltier Cooler

### Quartz One-Piece Torches

Description	ESI P/N
Quartz torch, Spectroflame, fixed injector 1.8 mm	ML175005
Quartz torch, Spectroflame, fixed injector 2.5 mm	ML175008
Quartz torch, Spectroflame, radial, fixed injector 1.0 mm	ML175007



ML175005  
Quartz Torch

## Quartz Injectors, Demountable

Description	ESI P/N
Quartz injector, 1.5 mm	ML175021
Quartz injector, 1.8 mm	ML175022
Quartz injector, 2.5 mm	ML175023



ML175021  
Quartz Injector

## HF Resistant

### Sapphire Injectors

Description	ESI P/N
Sapphire injector (SOP), HF resistant, 1.5 mm	ES-1980-0150
Sapphire injector (SOP), HF resistant, 1.8 mm	ES-1980-0180
Sapphire injector (SOP), HF resistant, 2.5 mm	ES-1980-0250



ES-1980-0180  
Sapphire Injector

### Quartz Torch, Demountable Injector

Description	ESI P/N
Quartz torch, end-on plasma (EOP), Axial, demountable, no flare, 100 mm length	ES-1702-SOP
Quartz torch, radial, demountable, 80 mm Length	ML175006
Quartz torch, organic, does not include gas fittings	ML175009



ES-1702-SOP  
Quartz torch

### PFA Spray Chamber Kit

Description	ESI P/N
HF resistant PFA spray chamber kit. Includes high sample flow PFA spray chamber with barbed exit port, polypropylene adapter for Spectro cross-flow nebulizer, ES-2100-2479 drain line, fittings, PFA barbed connector and 25 cm long tygon tubing 1/4" i.d.	ES-2100-2477



ES-2100-2477  
PFA Spray Chamber Kit

### PFA Spray Chamber

Description	ESI P/N
47 mm HF resistant PFA spray chamber with PFA PureCap endcap with additional gas port	ES-2256-0470



ES-2256-0470  
47 mm PFA Spray Chamber

### Tubing and Gas Connectors

Description	ESI P/N
Tubing and gas connectors	MM175055



MM175055  
Tubing and gas connectors

### Flared Peristaltic Pump Tubing

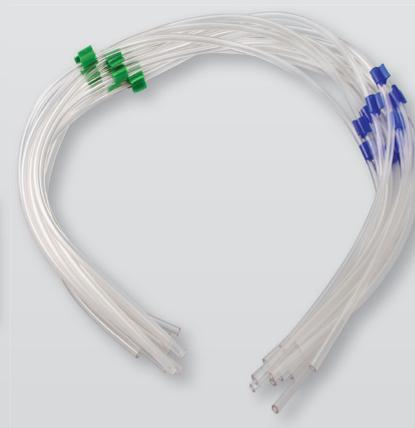
Description	ESI P/N
2-stop Tygon pump tubing, 0.38 mm ID, 2.0 mm flared (orange/green), 12 pc	ES-4397-1038
2-stop Tygon pump tubing, 0.89 mm ID, 2.0 mm flared, 151 mm bridge distance (orange/orange), 12 pc	ES-4397-1089
2-stop Tygon pump tubing, 1.30 mm ID, 2.0 mm flared, 151 mm bridge distance (grey/grey), 12 pc	ES-4397-1130



ES-4397-1089  
2.0 mm Flared  
Pump Tubing

### Peristaltic Pump Tubing

Description	ESI P/N
2-stop Tygon pump tubing, 1.30 mm ID, 151 mm bridge distance (grey/grey), 12 pc	ES-4398-1130
2-stop Tygon pump tubing, 1.75 mm ID, 151 mm bridge distance (blue/green), 12 pc	ES-4398-1175



ES-4398-1175  
1.75 mm Pump  
Tubing

# MEINHARD®

## NEW PLUS NEBULIZERS

with PFA FitKit Quick Connects



MEINHARD® SiIQ+ high purity nebulizer  
with PFA FitKit

### *NEW Quartz and Glass Nebulizers with PFA FitKit*

- SiIQ+ High Purity Quartz Nebulizer
- TQ+ Quartz Nebulizer
- TR+ Glass Nebulizer



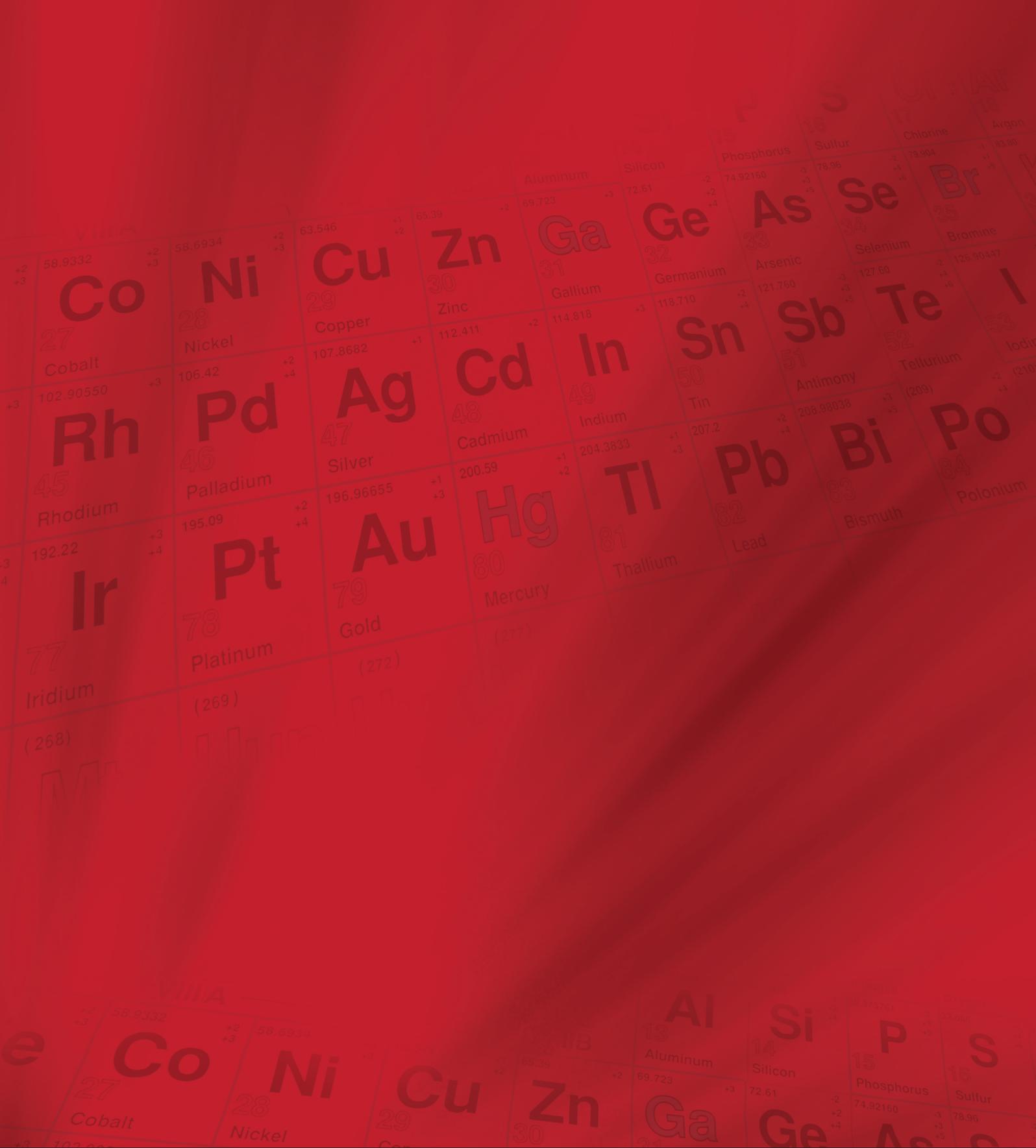
*Enhance Your Detection Limits,  
Reduce Sample Contamination*



**Elemental  
Scientific**

[www.icpms.com](http://www.icpms.com)  
[www.meinhard.com](http://www.meinhard.com)





**Elemental Scientific**

Phone: 1.402.991.7800

Fax: 1.402.991.7799

E-mail: [esi@icpms.com](mailto:esi@icpms.com)

Website: [www.icpms.com](http://www.icpms.com)

**Meinhard**

Phone: 303-277-9776

800-MEINHARD (800-634-6427)

Fax: 303-279-5156

E-mail: [sales@meinhard.com](mailto:sales@meinhard.com)

Website: [www.meinhard.com](http://www.meinhard.com)

**Elemental Scientific Glassblowing**

Phone: 303-840-3263

Fax: 303-840-3270

E-mail: [info@latoscientific.com](mailto:info@latoscientific.com)

Website: [www.latoscientific.com](http://www.latoscientific.com)