

COMPLETE THIS FORM TO INITIATE SUPPLIER SCOUTING

MEPNN Supplier Scouting Opportunity Synopsis

*The submitting organization (ex. MEP Center, requesting company, federal/state agency) agrees to notify NIST MEP of the status of actions taken as a result of this scouting instance within 30 days after receiving a results report. Notification should be via email to scouting@nist.gov, indicating the following:

- Contact with matches identified in report complete and supply contract awarded, process complete
- Contact with matches identified in report complete and no supply contract awarded, process complete
- Contact with matches identified in report complete and supply negotiations underway, process in progress
- Contact with matches identified in report underway; supply negotiations not yet begun; process in progress
- Contact with matches identified in report not yet begun, process in progress
- Contact with matches identified in report will not occur within the next 6-months, process complete

_____ days
Opportunities will be posted for 30 days unless specified

Item to be Scouted

Please describe the item application/ the end use of item.* Provide the item number if applicable: (N95 Mask vs Protective Mask).

Supplier Scouting Number (NIST MEP use)

Scouting customer/product [NAICS Code](#), if known

TECHNICAL INFORMATION:	1. Supplier Information	a. Type of supplier being sought*
		<input type="checkbox"/> Manufacturer <input type="checkbox"/> Contract Manufacturer <input type="checkbox"/> Distributor <input type="checkbox"/> Other _____
	2. Summary of Technical Specifications and Performance Requirements:	b. Reason for scouting submission*
		<input type="checkbox"/> 2 nd Supplier <input type="checkbox"/> Price <input type="checkbox"/> Re-shore <input type="checkbox"/> Past supplier no longer available <input type="checkbox"/> New Product Startup <input type="checkbox"/> Other _____
		a. Describe the manufacturing processes (elaborate to provide as much detail as possible).*
		b. Provide dimensions / size / tolerances / performance specifications for the item.*
c. List required materials needed to make the product, including materials of product components.*		

2. Summary of Technical Specifications and Performance Requirements cont:	d. Are there applicable certification requirements?* <input type="checkbox"/> Yes <input type="checkbox"/> No Please explain	
	e. Are there applicable regulations?* <input type="checkbox"/> Yes <input type="checkbox"/> No Please explain	
	f. Are there any other standards, requirements, etc.?* <input type="checkbox"/> Yes <input type="checkbox"/> No Please explain	
	g. Additional Comments: Is there other information that would impact the item's performance or usefulness? Please explain.	
BUSINESS INFORMATION:	3. Volume and Pricing	3a. Estimated potential business volume (i.e., # Units Per Day, Month, Year) *:
		b. Estimated target price / unit cost information (if unavailable explain) *:
	4. Delivery Requirements:	a. When is it needed by? (Immediate, 30 Days, 6 months, etc.)*
		b. Describe packaging requirements (i.e., individually/group packaging)*
		c. Where will this item be shipped? *
5. Additional Comments:	Is there other information you would like to include?	

Photos or diagrams of the item (helpful but not required).

DATA BULLETIN

CNS determination in plant material with the vario MACRO cube

CNS analyses in plant material have strong requirements for the simultaneous measurement of very low S contents next to high C contents. The vario MACRO cube is very well suited for these types of analyses. Moreover, with the vario MACRO cube, high sample weights can be analyzed, which is especially important when inhomogeneous samples, such as soil and plant material, are analyzed.

The samples were weighed into tin boats. Tungsten trioxide powder was added to the sample in a ratio 1:1 to bind the earth alkaline/alkaline ions. Sulfanilamide was used to determine the daily factor. Each sample was analyzed four times. The average CNS content and its absolute standard deviation are given below.

SAMPLE	C [%]	N [%]	S [%]
birch leaf	47.9 ± 0.031	2.19 ± 0.019	0.153 ± 0.002
soy	41.2 ± 0.027	7.96 ± 0.057	0.415 ± 0.010
coarse colza meal	41.8 ± 0.032	5.72 ± 0.050	0.707 ± 0.010
algea	45.1 ± 0.026	10.0 ± 0.020	0.798 ± 0.012

The CNS content in plant material could be determined with a very high precision. The precision of 1.6% relative for the determination of only 0.15% S in the presence of 48% C show the large concentration dynamic of the vario MACRO cube CNS.

The vario MACRO cube is very well suited for simultaneous CNS analysis of plant material.

INSTRUMENT:

vario MACRO cube

DETAILS:

mode: CNS

sample: 50–80 mg plant material



Elementar Analysensysteme GmbH
Elementar-Straße 1
63505 Langenselbold (Germany)
phone: +49 (0) 6184 9393-0
info@elementar.de | www.elementar.de



vario MACRO cube

The one and only CHNS macro analyzer



Great flexibility




High data quality



Extreme durability



Ease of use

vario MACRO  cube

vario MACRO cube

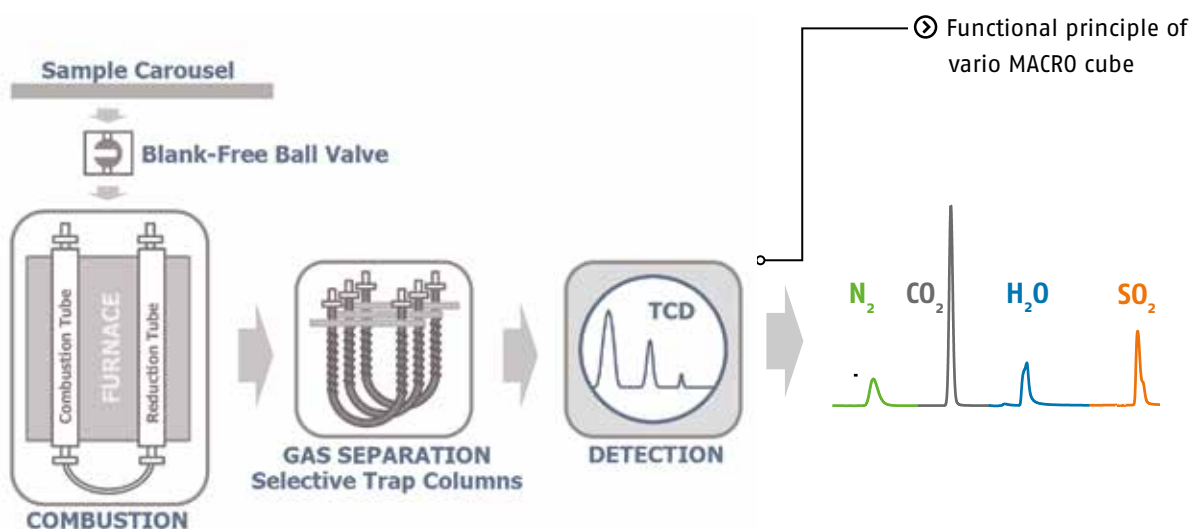
*High performance
at a small footprint*

KEY FEATURES

- Industry-leading performance and versatility
- C / N elemental ratios of up to 7000 : 1
- Outstanding robustness
- 10 year warranty on furnace and thermal conductivity detector cell
- Integrated 60 position autosampler as standard
- Patented ball valve for blank-free sample transfer
- Measurements according to ASTM D5291 and D5373

There is only one macro analyzer available for simultaneous, one-sample CHNS determination on the market: the vario MACRO cube! It is designed to offer industry-leading versatility in elemental analysis. No add-on modules or extra furnaces are required for sulfur analysis. Four elements from just one sample.

The instrument is capable of measuring samples with even the most challenging C / N elemental ratios of up to 7000 : 1. This is achieved thanks to the Advanced Purge and Trap technology provided exclusively by Elementar. The vario MACRO cube addresses all customer needs with macro sample volumes and weights.



Outstanding versatility

The possible applications range from testing solids such as petroleum coke, lignite, and bituminous coal to viscous and liquid samples, such as tar or marine residual / bunker fuels of all various types. Combined with its outstanding precision, the vario MACRO cube is a versatile and reliable workhorse for the analysis of fossil fuels and derived products.

One instrument for multiple tasks

For the determination of very low S concentrations down to 2 ppm, the vario MACRO cube can be equipped with an optional IR detector. Even total inorganic carbon (TIC), oxygen and chlorine can be detected. All optionally available conversion kits allow upgrading the vario MACRO cube at any time for special applications.

Save valuable time in sample preparation

The vario MACRO cube is one of a kind and allows straightforward CHNS determination from one sample. In addition, sample weights of up to several hundred milligrams give rise to analyzing inhomogeneous species as is – tedious grinding or milling procedures may often be omitted.

Future-proof investment

Thanks to the outstanding robustness and longevity for all elemental analyzers a 10 year warranty on furnace and thermal conductivity detector (TCD) cell is granted. With our well-known, long-term oriented dedication to technical support, Elementar provides spare parts for a minimum of 10 years after the end of production. This results in outstanding low total cost of ownership and gives customers confidence in return of investment.

HIGH-TEMPERATURE COMBUSTION



All elemental analyzers from Elementar are designed for minimal sample preparation and secure, unattended 24 / 7 operation. They use the safe, simple, and environmental friendly high-temperature combustion principle. The proven Elementar furnace technology, combined with efficient oxygen dosing, guarantees quantitative conversion of the sample to measuring gas – a prerequisite for highly precise and matrix-independent elemental analysis.

ADVANCED PURGE AND TRAP



Elementar's proprietary APT technology is the leading chromatographic technique for the determination of non-metal elements. In conjunction with the detection of the complete combustion gas without gas splitting and dilution, the APT technology is capable of resolving even C / N ratios of up to 7000 : 1. The distinct peak separation assures absolutely reliable and trouble-free data acquisition. The data analysis can therefore be easily automated for larger sample amounts while maintaining highest possible data quality and accuracy. Elementar's unique purge and trap columns are optimized to provide unmatched robustness and longevity compared to GC columns. Furthermore, they can be loaded up to 250-fold higher, resulting in outstanding sample flexibility. The analysis of samples with an absolute carbon content of up to 150 mg is therefore possible. Thus, customers enjoy industry-leading accuracy, sensitivity, and versatility.

Elemental analysis has never been easier!

SAMPLE	CARBON [%]	HYDROGEN [%]	NITROGEN [%]	SULFUR [%]
OIL	86.3 ± 0.30	13.4 ± 0.029	0.054 ± 0.008	0.13 ± 0.018
COAL	78.8 ± 0.103	4.79 ± 0.010	2.09 ± 0.003	0.54 ± 0.005
FLY ASH	3.41 ± 0.09	0.039 ± 0.001	1.76 ± 0.003	-
DDGS*	45.1 ± 0.21	6.92 ± 0.06	5.47 ± 0.03	0.94 ± 0.028
SOIL	0.137 ± 0.003	0.199 ± 0.012	0.032 ± 0.002	0.005 ± 0.001
SOY	41.20 ± 0.027	-	7.96 ± 0.057	0.415 ± 0.01
ALGAE	45.1 ± 0.026	-	10.0 ± 0.02	0.798 ± 0.012
FERTILIZER	0.23 ± 0.003	-	12.4 ± 0.06	8.87 ± 0.05

*Dried Distiller's Grain with Solubles
Sample weight between 40-500 mg

HIGH PRECISION HYDROGEN MEASUREMENTS

The vario MACRO cube is optimized for highly precise hydrogen concentration measurements. Through detection with a reliable thermal conductivity detector, possible interferences and imprecisions of H₂O measurements encountered with infrared detection are avoided. Furthermore, all tubing in contact with water is heated to avoid condensation of trace water inside the system and thus low results.

QUALITY YOU CAN TRUST

Our consumables and spare parts are designed to meet the highest quality standards and reliability. They are certified and validated in accordance with international norms and standards. We do not compromise on quality of our parts and chemicals – this is the prerequisite of a guaranteed long lifetime of our instruments.

IDEAL SOLUTION FOR

- Chemical contract laboratories
- Quality control laboratories
- Academic research groups

SAMPLE TYPES ANALYZED

- Coal
- Coke
- Biomass
- Waste



Great flexibility

Wide range of optional conversion kits available for special applications. Upgradeable at any time.



High data quality

Outstanding precision and accuracy through high performance combustion. Matrix-independent results. Longterm stability of calibration.



Extreme durability

Outstanding robustness and longevity thanks to state-of-the-art technology. 10 year warranty on furnace and TCD cell.



Ease of use

Easy, labor-saving instrument operation and sample preparation. Simplified maintenance.

Elementar – your partner for excellent elemental analysis

Elementar is the world leader in high performance analysis of organic and inorganic elements. Continuous innovation, creative solutions and comprehensive support form the foundation of the Elementar brand, ensuring our products continue to advance science across agriculture, chemical, environmental, energy, materials and forensics markets in more than 80 countries.

Elementar Analysensysteme GmbH

Elementar-Straße 1 · 63505 Langenselbold (Germany)

Phone: +49 (0) 6184 9393-0 | info@elementar.com | www.elementar.com



PRICE QUOTATION

Government Scientific Source, Inc.

Small Business

12351 Sunrise Valley Drive, Reston, Virginia 20191

(800) 248-8030 * (703) 734-1805

Fax (703) 734-1803

Sales Quote Date: 7/15/2022
Sales Quote Number: Q486779

SalesPerson: Chenne Lamotte
Customer ID: C20014
E-Mail: clamotte@govsci.com

Page 1

Requested For Shipment To:

EPA CINCINNATI BPA
26 W MARTIN LUTHER KING DR
CINCINNATI, OH 45268

Requested By:

Name: MAX J KRAUSE
Phone: 513-487-2689
Intl Phone:
Fax: --
E-Mail: krause.max@epa.gov

Notes and Comments: elementar quote /EPA Max J. Krause, PhD

Part No.	Description	UOM	Qty	Unit Price	Extended Price
ELEMENTAR AMERICAS INC vMACcu-CHNS	includes initial outfit kit all items necessary fo (Germany) (Available on FSS Contract No. GS-07F-5934R, Sin # 334516)	Each	1	64,166.50	64,166.50
ELEMENTAR AMERICAS INC 10032	Computer Elementar Control Module (United States) (Available on FSS Contract No. GS-07F-5934R, Sin # 334516)	Each	1	1,762.90	1,762.90
ELEMENTAR AMERICAS INC 10043	Regulator O2 (United States) (Available on FSS Contract No. GS-07F-5934R, Sin # 334516)	Each	1	374.00	374.00
ELEMENTAR AMERICAS INC 10026	Regulator He/Ar/N (United States) (Available on FSS Contract No. GS-07F-5934R, Sin # 334516)	Each	1	374.00	374.00
ELEMENTAR AMERICAS INC vMACcu-4k-CHNS	Set of consumables for approx. 4000 solid samples (Germany) (Open Market)	Each	1	4,194.19	4,194.19
ELEMENTAR AMERICAS INC vMACcu-wearparts	Set of O-rings / small wear parts vario MACRO cube (Germany) (Open Market)	Each	1	348.57	348.57
ELEMENTAR AMERICAS INC B15.40-0017	Combined IR detector for oxygen and sulfur determi (Germany) (Available on FSS Contract No. GS-07F-5934R, Sin # 334516)	Each	1	16,201.00	16,201.00

FOB Destination

Quotation valid for 30 days from date of issuance

Estimated delivery time from date of issuance is According to Agreed Terms

Sales tax may change at the time of order depending on ship-to location and tax liability

PRICE QUOTATION

Government Scientific Source, Inc.

Small Business

12351 Sunrise Valley Drive, Reston, Virginia 20191

(800) 248-8030 * (703) 734-1805

Fax (703) 734-1803

Sales Quote Date: 7/15/2022
Sales Quote Number: Q486779

SalesPerson: Chenne Lamotte
Customer ID: C20014
E-Mail: clamotte@govsci.com

Page 2

Requested For Shipment To:

EPA CINCINNATI BPA
26 W MARTIN LUTHER KING DR
CINCINNATI, OH 45268

Requested By:

Name: MAX J KRAUSE
Phone: 513-487-2689
Intl Phone:
Fax: --
E-Mail: krause.max@epa.gov

Notes and Comments: elementar quote /EPA Max J. Krause, PhD

Part No.	Description	UOM	Qty	Unit Price	Extended Price
ELEMENTAR AMERICAS INC 10024	Regulator H2 CO forming gas <125 psi (United States)	Each	1	434.46	434.46
ELEMENTAR AMERICAS INC vMULcu-1k-O	(Available on FSS Contract No. GS-07F-5934R, Sin # 334516) includes all necessary consumables chemicals sampl (Germany)	Each	1	778.77	778.77
ELEMENTAR AMERICAS INC vMULcu-conv-CI	(Available on FSS Contract No. GS-07F-5934R, Sin # 334516) Conversion kit chlorine analysis lower range (Germany)	Each	1	10,812.00	10,812.00
ELEMENTAR AMERICAS INC vMULcu-1k-CI	(Open Market) Set of consumables for approx. 1000 solid samples (Germany)	Each	1	754.21	754.21
ELEMENTAR AMERICAS INC vMACcu-conv-solITIC	(Open Market) solITIC (Germany)	Each	1	6,154.85	6,154.85
ELEMENTAR AMERICAS INC vMULcu-cal-IR-S	(Available on FSS Contract No. GS-07F-5934R, Sin # 334516) Standard calibration set for option S IR (Germany)	Each	1	335.75	335.75
ELEMENTAR AMERICAS INC vMULcu-cal-IR-O	(Open Market) Standard calibration set for option O IR (Germany)	Each	1	335.75	335.75
	(Open Market)				

FOB Destination

Quotation valid for 30 days from date of issuance

Estimated delivery time from date of issuance is According to Agreed Terms

Sales tax may change at the time of order depending on ship-to location and tax liability

PRICE QUOTATION

Government Scientific Source, Inc.

Small Business

12351 Sunrise Valley Drive, Reston, Virginia 20191

(800) 248-8030 * (703) 734-1805

Fax (703) 734-1803

Sales Quote Date: 7/15/2022
Sales Quote Number: Q486779

SalesPerson: Chenne Lamotte
Customer ID: C20014
E-Mail: clamotte@govsci.com

Page 3

Requested For Shipment To:

EPA CINCINNATI BPA
26 W MARTIN LUTHER KING DR
CINCINNATI, OH 45268

Requested By:

Name: MAX J KRAUSE
Phone: 513-487-2689
Intl Phone:
Fax: --
E-Mail: krause.max@epa.gov

Notes and Comments: elementar quote /EPA Max J. Krause, PhD

Part No.	Description	UOM	Qty	Unit Price	Extended Price
ELEMENTAR AMERICAS INC	S EA INST FLAT FOR O installation flat rate for options (Open Market) (United States)	Each	4	1,177.25	4,709.00

FOB Destination

Quotation valid for 30 days from date of issuance

Estimated delivery time from date of issuance is According to Agreed Terms

Sales tax may change at the time of order depending on ship-to location and tax liability

Subtotal: 111,735.95

Tax 0.00

Total: 111,735.95