



SUpplement | Additional products for CF-IRMS

to be used in conjunction with our main CHNOS analysis catalogue



Ordering Information

We are happy to accept orders by any of the following methods:

Phone: +44 (0)1837 54446 Fax: +44 (0)1837 54544

E-mail: info@microanalysis.co.uk Online: www.elementalmicroanalysis.com Mail: Elemental Microanalysis Ltd

1 Hameldown Road

Okehampton Business Park

Okehampton Devon EX20 1UB United Kingdom

We can invoice you in Sterling, Euro or US Dollar, and accept Visa or Mastercard payments; account facilities are readily available for regular customers, please enquire.

Shipping Worldwide

We regularly ship directly to customers in all parts of the world, and our staff are highly experienced in shipping dangerous goods. Local dealers are available in many countries: contact us for details.



www.elementalmicroanalysis.com

Available locally from:

Literature Available from Elemental Microanalysis

This CF-IRMS brochure is intended for use as a supplement to our main Micro CHNOS catalogue. A range of other catalogues, product sheets and other literature is also available:

Catalogues

Our catalogues cover the following areas of elemental analysis:

- Micro CHNOS
- IRMS Supplement
- · Inorganic
- · Organic Carbon/Sulphur
- Macro CN/CHN/CNS/N-protein
- Nitrogen/Protein
- Capsules
- · Laboratory Analysis Service

Our catalogues are also available to download from the website.

Product Sheets

Product sheets are available for every instrument we support. These cover all the common day-to-day items required to run your instrument.

A complete list of all instruments we support can be found on p 25–26 of this catalogue.



Contract Analysis Service

We also offer a contract analysis service for a variety of (mainly) organic compounds. Full details are in the brochure shown, or at www.elementallab.co.uk.



All printed literature is available using the request form on p25–26 of this catalogue, and catalogues can be downloaded from our website.



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Introduction

About the Company

Elemental Microanalysis has grown from small beginnings over 40 years ago as a micro-analytical laboratory to its current form as a leading manufacturer and supplier of consumables, supplies and other products for elemental analysers. We operate from our purpose-built factory, warehouse and laboratory complex in Devon, UK.



You learn a lot in 40 years – a lot about your products – how to make them and how to use them, a lot about your customers and their needs. We have been developing, refining and using products for elemental analysis since 1976 and have a unique in-depth knowledge of instruments from all manufacturers.

These days we offer the world's largest range of products for elemental analysers, sending our products to customers across the globe. We take





great care with the quality of our products. The vast majority are manufactured in-house by our trained technicians within our ISO 9001:2015 accredited quality system. But we don't just make the products – we use them every day in our own analytical laboratory, giving us constant feedback on their performance. We do not compromise on quality and don't expect you to either. Our total satisfaction guarantee backs up our commitment to our product quality.

'Price is what you pay, value is what you get'.

As the leading independent supplier of elemental analysis consumables we can offer substantial savings in comparison to the prices charged by the original supplier of your instrument. But we know that you need more from a supplier than simply low prices. You need to buy with the confidence that your analysis will not be compromised by poor quality consumables and the knowledge that your supplier has all the resources to provide the full range of support that you expect.

We will always treat our customers with honesty and integrity. If we do make a mistake we don't try to hide it – we recognise it and put it right.

We won't sell you short measure and we won't mislead you in any way. Our business is built on long-term relationships, as our customers will testify – many have been with us for more than 30 years.











'price is what you pay -

value is what you get'

Guaranteed quality

Our company's quality system is certified to ISO 9001:2015 by LRQA, we have an ISO/IEC 17025:2017 UKAS accredited Testing Laboratory, and we are an ISO/IEC 17034:2016 UKAS accredited Reference Material Producer. Our confidence in our products allows us to offer you a total satisfaction guarantee: if our product does not perform at least as well as the brand of product you usually use, you can return it for a full refund.







Sales service

Our friendly sales staff will ensure that your order is despatched promptly and correctly. They can tell you about our stock levels, prices, shipping arrangements, or answer any other queries you may have.

Most orders are despatched within 24 hours of receipt. Rush orders receive special attention and are processed immediately. If you have an urgent problem or need priority despatch, please let us know.



Technical service

In this catalogue we have tried to provide the most accurate and complete information possible about our ever-expanding range. We realise, however, that you may require additional technical information.

For this reason we have technical specialists on hand to answer your questions and advise you on selecting the products best suited to your needs. We can also supply samples, and even develop new products for your particular application.

Try our products -**Design changes**

We are constantly working on improving our products and these improvements may mean that some products differ from the descriptions in this catalogue. Our technical staff are happy to discuss any improvements made, and the resultant benefits. Check the website and join our mailing list to keep up-to-date with the latest products and developments.

free of charge!

Try before you buy - we have sample packs available for most elemental analysers on the market. Just let us know the instrument you have and we will send you a trial quantity of 3-4 different consumables to try - free and with no obligation. Offer limited to one per customer.



Consumables

CF-IRMS analysis

Cat No	Description	Pack
D44E0	Reagents 40/ Pletinum/ 40/ Nickel Oxide on Connex Oxide Cronviles	
B1158	1% Platinum/ 1% Nickel Oxide on Copper Oxide Granules,	E
D1140	Isotope Catalyst 0.2 to 0.5mm	5g
B1149	1% Platinum/ 1% Nickel Oxide on Copper Oxide Wires, Isotope Catalyst	5g
B1159	3% Platinum/ 1% Nickel Oxide on Copper Oxide Granules,	Ea
D1151	Isotope Catalyst 0.2 to 0.5mm	5g
B1151 B1451	3% Platinum/ 1% Nickel Oxide on Copper Oxide Wires, Isotope Catalyst	5g
B1451	Chrome Catalyst 200µm	25g
B1108	Chrome Catalyst 200µm	100g
B1051	Copper Granules Fine Reduced 0.05 to 0.2mm	100g
B1031	Copper Oxide Granular Isotope Grade 0.1 to 0.5mm	50g
B1071	Copper Oxide Wires Instance Grade 4 x 0 5mm	50g
B1000	Copper Oxide Wires Silvered Isotope Grade 4 x 0.5mm	50g
C7003	Copper Oxide Wires Silvered Isotope Grade 4 x 0.5mm	50g
C7003	Glassy Carbon Chips 2-3mm	25g
C7006	Glassy Carbon Chips 2-3mm	50g
C7000	Glassy Carbon Chips 2-3mm	100g
C7002	Glassy Carbon Chips 3-4mm	25g
C7013	Glassy Carbon Chips 3-4mm Glassy Carbon Chips 3-4mm	50g 80g
B1065	High Purity Carbon Granular 0.2 to 0.5mm	1g
B1003	Nickel Oxide Granular 0.2 to 0.5mm	25g
B1086	Nickelised Carbon 30% Ni Granular 0.3 to 0.85mm	5g
B1088	Nickelised Carbon 30% Ni Granular 0.85 to 1.7mm	5g
B1087	Nickelised Carbon 40% Ni Granular 0.3 to 0.85mm	5g
B1106	Nickelised Carbon 40% Ni Granular 0.85 to 1.7mm	5g
B1181	Nickelised Carbon 50% Ni Granular 0.3 to 0.85mm	5g
B1182	Nickelised Carbon 50% Ni Granular 0.85 to 1.7mm	5g
B1096	Platinised Alumina 10% Pt Granular Isotope Grade 0.2 to 0.5mm	2g
B1097	Platinised Alumina 20% Pt Granular Isotope Grade 0.2 to 0.5mm	-9 2g
B1005	Platinised Carbon 10% Pt Granular 0.2 to 0.85mm	-9 5g
B1095	Platinised Carbon 20% Pt Granular 0.2 to 0.85mm	5g
B1030	Platinised Copper Oxide 10% Pt Isotope Grade Granular 0.2 to 0.5mm	2g
B1050	Platinised Copper Oxide 20% Pt Isotope Grade Granular 0.2 to 0.5mm	2g
	Wires	-9
D9101	Copper Wire 0.125mm Diameter x 10m	10m
B1156	Copper Wire 0.1mm High Purity Sealed Ampoule 12 x 300mm	300mm
D9102	Nickel Wire 0.125mm Diameter x 10m	10m
D9100	Platinum Wire 0.125 x 1m	1m
	Wools	
B1007	Nickel Wool Fine Wire	2g
B1017	Silica (Quartz) Wool Very Fine	5g
B1208	Silica (Quartz) Wool Very Fine	10g
B1276	Silica (Quartz) Wool Very Fine	15g
B1102	Silica (Quartz) Wool Very Fine	50g
B1261	Silver Wool Very Fine Wire Unreeled 89 sqcm/g	2g
B1119	Silver Wool Very Fine Wire Unreeled 89 sqcm/g	10g





Glassy carbon chips 3-4mm, 25g C7002





Nickelised carbon 50% Ni granular 0.3 to 0.85mm, 5g B1181

For our range of isotope reference materials, see page 14.

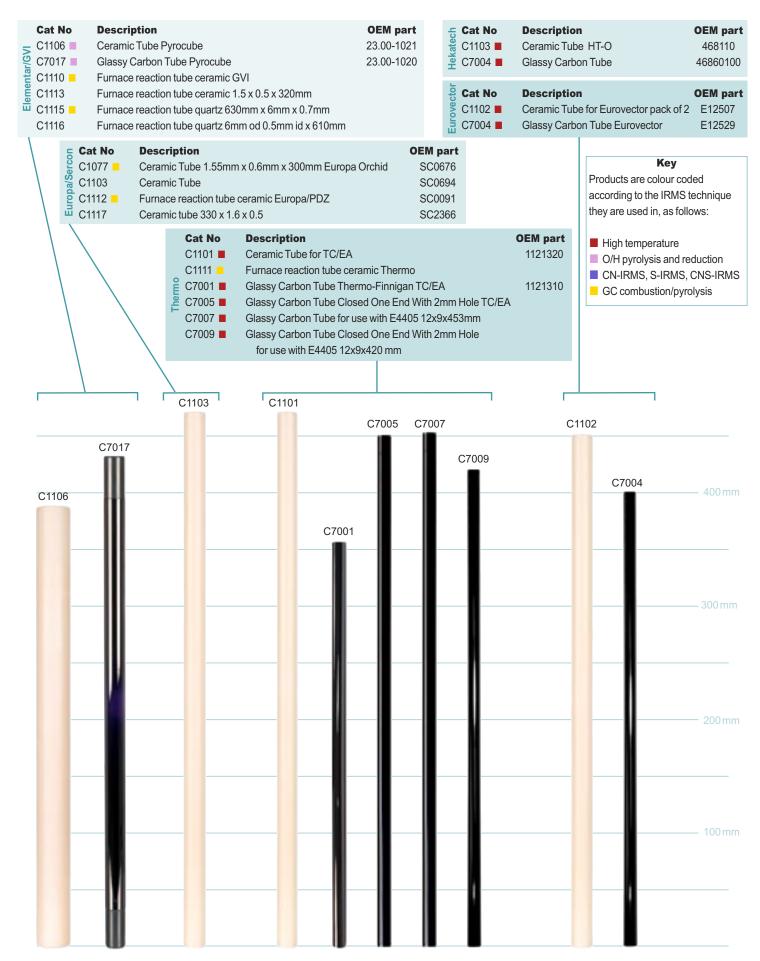
Do you want to find a product using the manufacturer part number?

— Use the cross reference lists, beginning on page 20.



CF-IRMS analysis

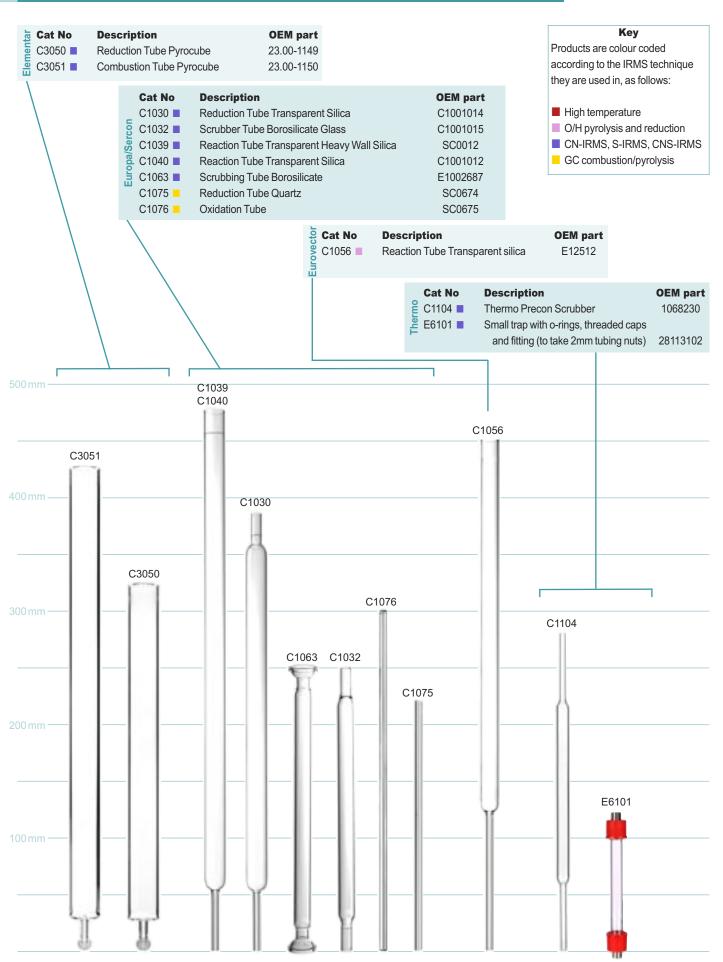
Glassy carbon and ceramic tubes





Quartz/glass comb/reaction/scrubbing tubes

CF-IRMS analysis





CF-IRMS analysis

Crucibles, inserts and lances

Key

Products are colour coded according to the IRMS technique they are used in, as follows:

- High temperature
- O/H pyrolysis and reduction
- CN-IRMS, S-IRMS, CNS-IRMS

C1094 C2030

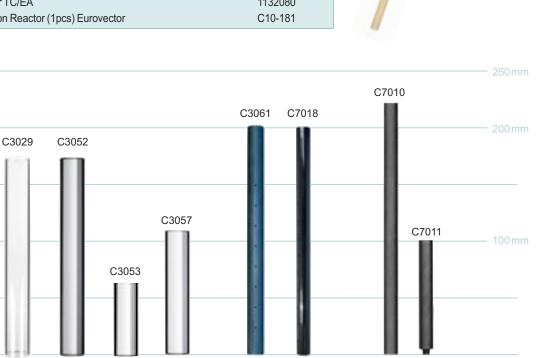
C1050

GC combustion/pyrolysis

Cat No	Description	OEM part
C7012	Graphite Crucible for TC/EA	1117332
C7013	Large Graphite Crucible for TC/EA 5 to 5.1mm wide	SC2388
C7014	Extra Large Graphite Crucible for 9mm id Glassy carbon tubes 5.9mm wide	SC2389
C7019	Hexagonal graphite crucible for TC/EA for use in 7mm ID glassy carbon tubes	
C7020	Octagonal graphite crucible for TC/EA for use in 9mm ID glassy carbon tubes	



Cat No	Description	OEM part
C1050	Sleeve Insert Open Both Ends Transparent Silica 15 x 180mm Europa	C1001048/SC0011
C1094	Sleeve Insert Open Both Ends Transparent Silica 15 x 220mm Europa	SC0687
C2030	Sleeve Insert Transparent Silica NA1500(1)	SC0729
C3028	Oxygen lance 90mm	05 002 321
C3029	Support Tube 175mm Pyrocube	
C3052	Support rod reduction tube 175mm	23.00-1148
C3053	support rod, reduction tube 65mm	11.00-1364/4
C3057	support rod reduction tube 110mm	15.40-1002
C3061	Ash crucible graphite	23.00-1189
C7018	Ash Finger - High Temperature Pyrocube	15.00-1189
C7010	TC/EA Graphite Tube	1121351
C7011	H2O Graphite Tube for TC/EA	1132080
C7022	Cone for Glassy Carbon Reactor (1pcs) Eurovector	C10-181



C3028



Prepacked tubes

CF-IRMS analysis

	Cat No	Description	OEM part
Elementar	X1504 ■	Prepacked GC Reaction Tube 630x1/4x0.7mm Quartz Copper Oxide wires + 1%Pt + 1%NiO	
Europa/Sercon	X1200	Prepacked Reaction Tube Europa Includes C1050 Quartz Liner Transparent Prepacked Reaction Tube Europa Transparent heavy wall Includes C1050 Quartz Liner Prepacked Reduction Tube Roboprep Prepacked Reduction Tube Europa Prepacked Reduction Tube Europa Transparent Heavy wall Prepacked Reaction/Reduction Tube Sulphur - Europa - Transparent Prepacked Oxygen Pyrolysis Tube Europa Transparent Silica Packed Hydrogen Pyrolysis Tube Europa Transparent Silica Prepacked GC Reaction Tube 400x1.6x0.8mm Ceramic Copper Wire Prepacked GC Reaction Tube 400x1.6x0.8mm Ceramic Copper/Platinum Wire Prepacked GC Reaction Tube 400x1.6x0.8mm Ceramic Nickel Wire Prepacked GC oxidation reactor tube 320x1.5x0.5mm Ceramic Copper/Platinum/Nickel Wire Prepacked GC Reaction Tube 400x1.6x0.8mm Ceramic Copper/Platinum/Nickel Wire Prepacked GC Reaction Tube 400x1.6x0.8mm Ceramic Copper/Platinum Wires	SC2147 SC2149 SC2150 SC2151 SC2152 SC2153 SC2155 SC2157 SC2177 SC2178 SC2179 1040920 1040820
Thermo	X1104 X1505 = X1507 = X1500 = X1506 = X1172 = X7021 = X7020 =	Prepacked Thermo Precon Scrubber Prepacked GC oxidation reactor tube 320x1.5x0.5mm Ceramic Copper/Platinum/Nickel Wire Prepacked GC Reaction Tube 400x1.6x0.8mm Ceramic Copper/Nickel/Platinum Wires Prepacked GC Reaction Tube 600x3x0.5mm Ceramic Copper/Platinum Wire Prepacked GC reduction reactor tube 320x1.5x0.5mm Ceramic Copper Wire Prepacked Ox/Red Reactor CNS for Flash HT Plus (Argon sealed) Prepacked reactor Flash HT (ceramic and glassy carbon) Prepacked TC/EA Tube (ceramic and glassy carbon)	1040920 SC2176 1040820 46802021 1127500

Key Products are colour coded according to the IRMS technique they are used in, as follows: ■ High temperature ■ O/H pyrolysis and reduction ■ CN-IRMS, S-IRMS, CNS-IRMS ■ GC combustion/pyrolysis X1200 X1203 X1205 X1207 X1209 X1209 X1202



CF-IRMS analysis

O-rings and seals



Cat No	Description	Pack	OEM part
E1001	O Ring Viton Rubber	10	29030331
E1004	O Ring Nitrile Rubber	10	29030042
E1042	Seal Viton Rubber Chamfered Square Profile	5	29030042
E1420	O Ring Europa	1	E1005669
E1421	O Ring Europa	1	E1002684
E1504	O-ring EVR for reactor 18mm od	1	E13536
E1506	O-ring for ceramic reactor 17mm	1	E13538
E1507	O-ring EVR for bottom quick fit 17mm	1	E13539
E1508	O-ring viton bottom quick fit 6mm	1	E13540
E6053	O Ring TC/EA	1	1121120
E6054	O Ring pack of 2 for E4405	2	29000063



Separation columns





Cat No	Description	OEM part	
E3001	Separation Column Oxygen 1m stainless steel	26007900	
E3009	Separation Column Oxygen 1.5m stainless steel		
E3011	NC separation column for IRMS	26007931	
E3030	Separation Column Oxygen 1m ANCA-SL/GSL	SC2010	
E3031	Separation Column NC 0.5m stainless steel Europa GSL/Integra	E1004907/SC2011	
E3032	Separation Column Sulphur 0.6m stainless steel Europa GSL/Integra	SC2012	
E3033	Separation Column NC 0.5m stainless steel Europa Roboprep	SC2013	
E3035	GC Column TC/EA 0.6m 1/4 Stainless Steel	1121030	
E3036	Separation column O/H 1.5m stainless steel	E11521	
E3037	Eurovector high resolution column (0.7m) for GC separation of C/N	E11528-IG	
E3042	Modified GC column TC/EA 1.5m long		

Modified lower fitting for improved analysis of waters

The adapter (E4405) channels the helium flow up between the ceramic outer and down through the centre of the glassy carbon tube, ensuring all water vapour is swept down into the reactive zone. Use of this fitting requires a different length glassy carbon inner from standard (C7007).



Parts and accessories

Cat No	Description	OEM part
E4405	Bottom feed adapter TC/EA with O-rings	
E4406	TC/EA Furnace Element	
E4407	TC/EA Furnace Repair - Does not include thermocouple replacement	
E4408	TC/EA Furnace Assembly	
F5170	Capillary SS 1/16 x 0.8 mm, 2m	605470





Consumables kits

CF-IRMS analysis

Consumable kits provide every consumable you should need for the day-to-day running of your instrument, for the specified type of analysis. Please check our website for the contents of each kit.

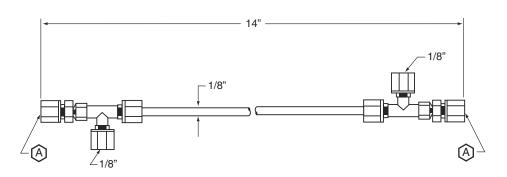
	Cat No	Description	OEM part
Eurovector	X3250 X3251 X3252 X3253 X3254	Consumable Kit Eurovector EA - CN 1000 analyses Consumable Kit Eurovector EA - O/H solid samples (high temperature) Consumable Kit Eurovector EA - Sulphur 1000 analysis Consumable Kit Eurovector EA - Hydrogen spares for liquid samples (low temperature) Consumable Kit Eurovector EA - Oxygen spares for liquid samples	6063056 6062979 6062974 6062977 6062978
	X1115 X1137 X1139	Thermo Flash 2000 IRMS NC Kit, Flash IRMS, 1000 analyses Spare parts/consumables, Flash 2000 HT & EA IsoLink CN/OH, OH analysis (3000 analyse Kit for 8000 analyses Flash for IRMS / HT NCS analysis Thermo Flash HT	9003770/1293150 es) 1185471
Thermo	X1138 X1139 X7008	Consumables Flash HT and TC/EA, OH-Analysis (1000 Analyses) Kit for 8000 analyses Flash for IRMS / HT NCS analysis Reactor kit Flash HT Thermo TC/EA	1290340 1197480
	X1136 X1138 X7007	Spare Parts/Consumables TC/EA, OH Analysis (3000 Analyses) Consumables Flash HT and TC/EA, OH-Analysis (1000 Analyses) Reactor Kit TC/EA	1136820 1290340 1141050

Equilibrium reagents and sundries

Cat No	Description	Pack
B1452	Platinum Catalyst Sticks for HD Equilibration	50 Sticks
B1453	5% Pt on Alumina -325mesh Powder	10g
E2800	Tapered Glass Insert for use with B1453 in equilibrium (exchange) reactions	1000

Nafion® dryers

Nafion® water removal dryers can be supplied as complete units or replacement inner elements. Dryers and elements are supplied with 0.05" OD, 0.04" ID Nafion® tubing.



Cat No	Description
	Complete dryer
E2810	Nafion Dryer Stainless Steel Body 1/8 End Fittings (A)
E2811	Nafion Dryer Stainless Steel Body 1/16 End Fittings (A)
E2812	Nafion Dryer Fluoropolymer Body 1/8 End Fittings (A)
E2813	Nafion Dryer Polypropylene Body 1/8 End Fittings (A)
	Replacement inner element
E2820	12" long, 0.05" Tubing, Polypropylene Flanged End Pieces
E2821	12" long, 0.05" Tubing, Fluoropolymer Flanged End Pieces
E2822	12" long, 0.05" Tubing, Stainless Steel Flanged End Pieces

Nafion® is a registered trademark of E.I. DuPont.



CF-IRMS analysis

Vials, seals and caps

Cat No	Description	Pack
E2830 E2831 E2832 E2833 E2834	Exetainer® 4.5ml borosilicate vial, round bottom, 46x15.5mm Non-evacuated, unlabelled, seal + white cap Evacuated, unlabelled, seal + white cap Non-evacuated, labelled, seal + white cap Evacuated, labelled, seal + white cap Non-evacuated, unlabelled, seal + white cap	1000 1000 1000 1000 2000
E2840 E2841 E2842 E2843	Exetainer® 5.9ml soda glass vial, flat bottom, 55x15.5mm Non-evacuated, unlabelled, seal + white cap Evacuated, unlabelled, seal + white cap Non-evacuated, labelled, seal + white cap Evacuated, labelled, seal + white cap	1000 1000 1000 1000
E2850 E2851 E2852 E2853 E2869	Exetainer® 12ml soda glass vial, flat bottom, 101x15.5mm Non-evacuated, unlabelled, seal + white cap Evacuated, unlabelled, seal + white cap Non-evacuated, labelled, seal + white cap Evacuated, labelled, seal + white cap Evacuated, labelled, double wadded, white cap	1000 1000 1000 1000 1000
E2860 E2861 E2862 E2863 E2868	Exetainer® 12ml borosilicate vial, round bottom, 101x15.5mm Non-evacuated, unlabelled, seal + white cap Evacuated, unlabelled, seal + white cap Non-evacuated, labelled, seal + white cap Evacuated, labelled, seal + white cap Non-evacuated, labelled, double wadded white cap	1000 1000 1000 1000 500
E2870 E2871 E2872 E2873	Exetainer® 12ml soda glass vial, flat bottom, 101x15.5mm silicone coated for ¹³C breath test Non-evacuated, unlabelled, seal+white cap Evacuated, unlabelled, seal+white cap Non-evacuated, labelled, seal+white cap Evacuated, labelled, seal+white cap	1000 1000 1000 1000
E2864 E2881 E2882 E2883 E2867 E2884	Exetainer® 12ml borosilicate vial, round bottom, 104x15.5mm (Wind The wide thread profile of these Exetainer® vials gives a very tight screw fit, and to avoid any cap movement when samples are heated - e.g. on a gas bench. Non-evacuated, unlabelled, seal + white cap Evacuated, unlabelled, seal + white cap. Non-evacuated, labelled, seal + white cap Evacuated, labelled, seal + white cap Non-evacuated, unlabelled, seal + white cap, 500 vials + 1000 spare caps Non-evacuated, labelled, seal + white cap, 500 vials + 1000 spare caps	•
E2865 E2866 E2885 E2886 E2887	Exetainer® septa and caps Septa VW101 Pierceable caps Blue VC301 Pierceable caps white VC309 Pierceable caps Orange VC306 Pierceable caps Grey VC303	1000 1000 1000 1000 1000

 $\label{eq:expectation} \textbf{Exetainer}^{\texttt{@}} \, \textbf{is a registered trademark of Labco Ltd}.$



Reference materials CF-IRMS analysis





Isoto	pe reference materials						
Cat No	Description	Pack	δ ¹³ C ‰	δ ² H ‰	δ ^{15}N ‰	δ ¹8O ‰	δ ³⁴ S ‰
	Interlaboratory comparison Cert	ified leatonic l	Pafaranca Ma	toriale1			
B2203	IRMS Certified Reference Material EMAP1	3g	-27.85	-25.30		20.99	-3.01
B2205	IRMS Certified Reference Material EMA P2	3g	-28.19	-87.80	-1.57	26.88	0.01
B2207	Silver phosphate (Ag3PO4) 180 IRMS Standard	1g				21.7	
B2214	Carrara marble powder IRMS standard for 13C & 18O	0.5g	2.10			-2.01	
		ŭ					
	Certified Isotopic F	Reference Ma	terials ²				
B2151	High Organic Content Sediment IRMS Standard OAS/Isotope	5g	-28.85		4.32		
B2153	Low Organic Content Soil IRMS Standard OAS/Isotope	5g	-22.88		5.78		
B2155	Protein IRMS Standard OAS/Isotope	5g	-26.98		5.83		6.18 *
B2157	Wheat Flour IRMS Standard OAS/Isotope	5g	-27.21		2.73		-2.38 *
B2159	Sorghum Flour IRMS Standard OAS/Isotope	5g	-13.78		1.58		10.11 *
B2215	Gelatin IRMS standard certified for 13C 15N 18O 34S	2g	-22.92		4.26	6.76	1.21
	Uncertified wo	rking standar	ds ³				
B2190	2H and 18O isotope IRMS standard High enriched water	25ml		1701.83		266.83	
B2191	2H and 18O isotope IRMS standard Medium enriched water	25ml		843.43		108.63	
B2192	2H and 18O isotope IRMS standard Zero natural water	25ml		11.26		-0.41	
B2193	2H and 18O isotope IRMS standard Medium natural water	25ml		-98.32		-12.34	
B2194	2H and 18O isotope IRMS standard Low natural water	25ml		-269.07		-33.57	
B2195	2H and 18O isotope standard Set of 5 water working standards	5 x 25ml					
B2172	Olive Oil Isotopic Working IRMS Standard (13C)	5g	-29.32				
B2174	Urea Isotopic Working IRMS Standard (13C, 15N)	5g	-36.54		-2.35		
B2213	Spruce powder IRMS standard for 15N, 13C & 18O	3g	-25.44		-4.9	23.59	

- 1. Interlaboratory comparison Certified Isotopic Reference Materials Certified through an international study involving 6 to 25 laboratories.
- 2. Certified Isotopic Reference Materials Derived from data from two or more instruments in a single testing organisation on two or more runs on different days.
- 3. Uncertified working standards Using data from a single instrument and intended as "in-run" reference only.
- Values not certified; given for information only.

Analysis values may change depending on the current batch available; please see the website or contact us for information on the current analysis values of reference materials.



Europa

N/N&C determination



	K	(ey		
	Product	Qty	Europa no.	Cat no.
1	O-ring, upper, nitrile rubber			E1004
2	Reaction tube, transparent silica		C1001012	C1040
3	Sleeve insert		C1001048	C1050
4	Quartz wool, very fine	5 mm	C1001016	B1208
5	Chromium oxide	110 mm	C1001004	B1004
6	Copper oxide fine wires	40 mm	C1001007	B1002
7	Silver wool, very fine	20 mm	C1001018	B1119
8	O-ring, lower		E1005669	E1420
9	Quartz chips	100 mm	C1001017	B1008
10	Copper wires, fine	320 mm	C1001006	B1015
11	O-ring		E1002684	E1421
12	Scrubbing tube		E1002687	C1063
13	Quartz wool, very fine	10 mm	C1001016	B1208
14	Magnesium perchlorate		C1001008	B1101
15	EMASorb B granular 1.6 to 3mm	½ tube		B1118
16	EMASorb A granular 0.8 to 1.6mm	½ tube		B1116
17	Separation Column NC 0.5m		E1004907	E3031
Α	Prepacked reaction tube (includes C1	1050 quartz lin	er)	X1200
	Prepacked reaction tube, heavy wall,	(includes C10)50 quartz liner)	X1201
В	Prepacked reduction tube			X1203
	Prepacked reduction tube, heavy wal	l,		X1204

Europa

S determination





Europa

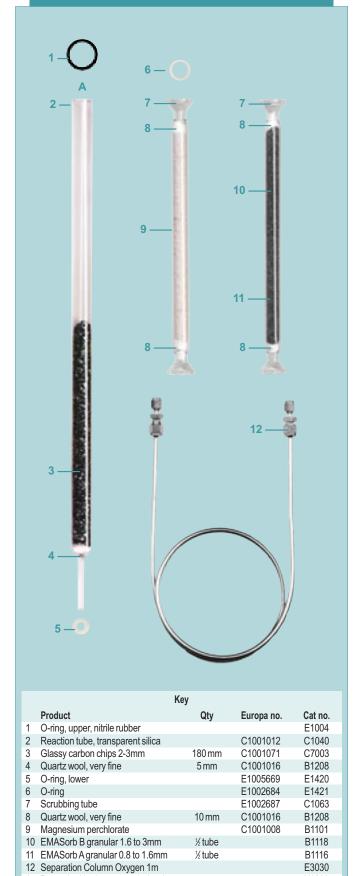
O pyrolysis



	H	Key		
	Product	Qty	Europa no.	Cat no.
1	O-ring, upper, nitrile rubber			E1004
2	Reaction tube, transparent silica		C1001012	C1040
3	Nickelised carbon 50% Ni	10 mm		B1182
4	Glassy carbon chips 2-3mm	180 mm	C1001071	C7003
5	Quartz wool, very fine	5 mm	C1001016	B1208
6	O-ring, lower		E1005669	E1420
7	O-ring		E1002684	E1421
8	Scrubbing tube		E1002687	C1063
9	Quartz wool, very fine	10 mm	C1001016	B1208
10	Magnesium perchlorate		C1001008	B1101
11	EMASorb B granular 1.6 to 3mm	½ tube		B1118
12	EMASorb A granular 0.8 to 1.6mm	½ tube		B1116
13	Separation Column Oxygen 1m			E3030
Α	Prepacked oxygen pyrolysis tube			X1207

Europa

H pyrolysis



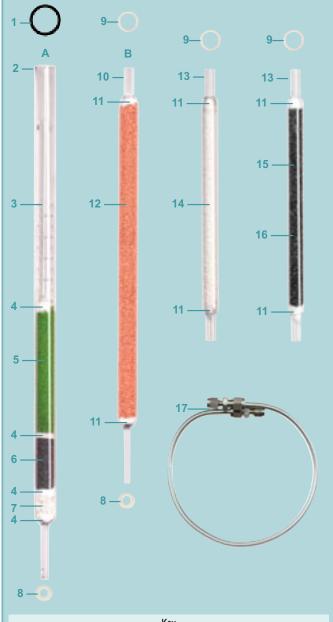
A Prepacked hydrogen pyrolysis tube

X1209



Europa Roboprep

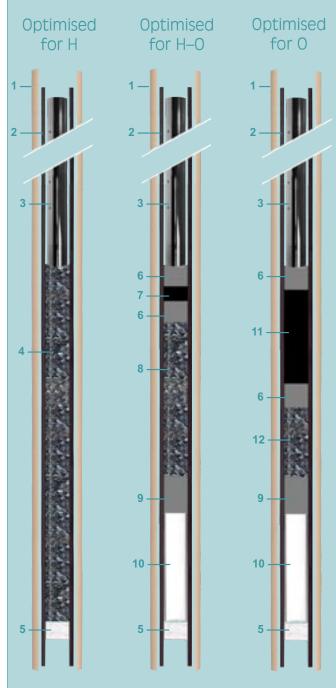
CN determination



	И	Сеу		
	Product	Qty	Europa no.	Cat no.
1	O-ring, upper, nitrile rubber			E1004
2	Reaction tube, transparent silica		C1001012	C1040
3	Sleeve insert		C1001048	C1050
4	Quartz wool, very fine	5 mm	C1001016	B1208
5	Chromium oxide	110 mm	C1001004	B1004
6	Copper oxide fine wires	40 mm	C1001007	B1002
7	Silver wool, very fine	20 mm	C1001018	B1119
8	O-ring, lower		E1005669	E1420
9	O-ring		E1002684	E1421
10	Reduction tube		C1001014	C1030
11	Quartz wool, very fine	10 mm	C1001016	B1208
12	Copper wires, fine	320 mm	C1001006	B1015
13	Scrubber tube		C1001015	C1032
14	Magnesium perchlorate		C1001008	B1101
15	EMASorb B granular 1.6 to 3mm	½ tube		B1118
16	EMASorb A granular 0.8 to 1.6mm	½ tube		B1116
17	Separation column NC 0.5m			E3033
Α	Prepacked reaction tube (includes C	1050 quartz lin	er)	X1200
В	Prepacked reduction tube			X1202

Elementar vario PYRO cube

H/H-O/O pyrolysis



	Key			
	Product	Qty	Elementar no.	Cat no.
1	Ceramic outer tube	·	23.00-1021	C1106
2	Glassy carbon tube		23.00-1020	C7017
3	Ash finger, glassy carbon		15.00-1189	C7018
3	(alternative) Ash crucible, graphite		23.00-1189	C3061
4	Glassy carbon chips	195 mm	11.64-0050	C7021
5	Quartz wool	10 mm	03 679 908	B1208
6	Graphite felt (one layer)			
7	Carbon black	8 mm		
8	Glassy carbon chips	85 mm	11.64-0050	C7021
9	Graphite felt (two layers)			
10	Support tube 60mm		15.00-1119	
11	Carbon black	50 mm		
12	Glassy carbon chips	35 mm	11.64-0050	C7021



Eurovector EA-3028HT

High temperature pyrolysis

Oxygen analysis Hydrogen analysis Key Eurovector no. Cat no. Product Qty O-ring for ceramic reactor 17mm E13538 E1506 Ceramic tube E12507 C1102 2 Glassy carbon tube E12529 C7004 20 mm E10145 B1182 4 Nickelised carbon 120 mm E10521 C7003 Glassy carbon chips 6 Glassy carbon chips 140 mm E10521 C7003 Silica (quartz) wool, very fine 20 mm E10514 B1017 8 Silica (quartz) wool, very fine E10514 B1017 O-ring for bottom, quick fit, 17mm E13539 E1507 10 Separation column O/H 1.5m E11521 E3036

Eurovector EA-3028HT

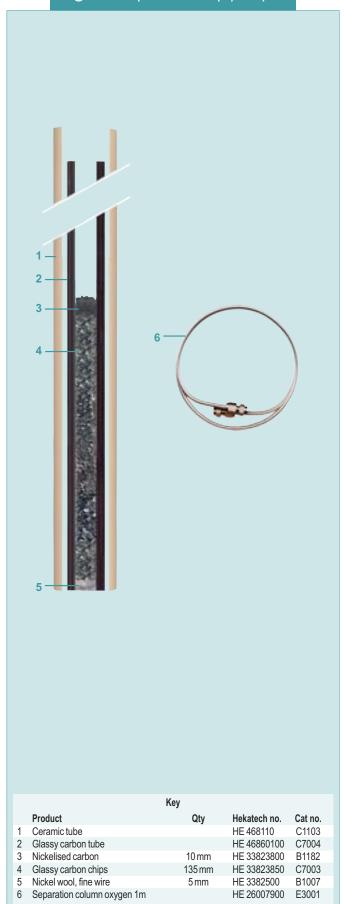
H in liquids using chrome catalyst





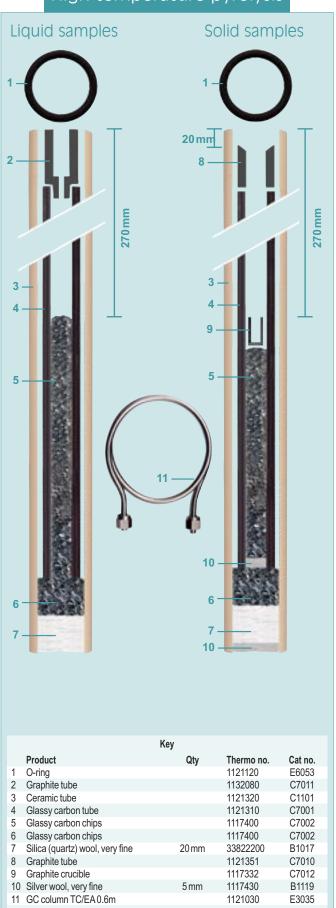
Hekatech HT-0

High temperature pyrolysis



Thermo TC/EA

High temperature pyrolysis





Cross references

CF-IRMS analysis

The use of OEM part numbers is intended for convenience only, and does not imply that the products are of OEM origin. All Elemental Microanalysis products are guaranteed to be of high quality and are deemed to be suitable alternatives.

	OEM part	Description	Pack	Cat. No.
	Costech			
	021024	Nickel Wool Fine Wire	2g	B1007
	021026	Silica (Quartz) Wool Very Fine	5g	B1017
등	021035	Silica (Quartz) Wool Very Fine	10g	B1208
Costech	021036	Silica (Quartz) Wool Very Fine	10g	B1208
S	64001	Reaction Tube Transparent Silica Roboprep - ANCA SL/GSL-Integra		C1040
	64002	Reduction Tube Transparent Silica Roboprep		C1030
	64004	Scrubbing Tube Borosilicate		C1063
	Elementar			
	03 679 908	Silica (Quartz) Wool Very Fine	10g	B1208
	05 002 321	Oxygen lance 90mm		C3028
	11.00-1364/4	Support rod, reduction tube 65mm		C3053
	11.64-0050	Glassy carbon chips	80g	C7021
	15.00-1189	Ash Finger - High Temperature Pyrocube		C7018
Elementar	15.40-1002	Support rod reduction tube 110mm		C3057
Je L	23.00-1020	Glassy Carbon Tube Pyrocube		C7017
<u>e</u>	23.00-1021	Ceramic Tube Pyrocube		C1106
ш	23.00-1148	Support rod reduction tube 175mm		C3052
	23.00-1149	Reduction Tube Pyrocube		C3050
	23.00-1150	Combustion Tube Pyrocube		C3051
	23.00-1189	Ash crucible graphite		C3061
	Europa			
	C1001012	Reaction Tube Transparent Silica Roboprep - ANCA SL/GSL-Integra		C1040
	C1001014	Reduction Tube Transparent Silica Roboprep		C1030
	C1001015	Scrubber Tube Borosilicate Glass Roboprep		C1032
	C1001016	Silica (Quartz) Wool Very Fine	10g	B1208
a	C1001018	Silver Wool Very Fine Wire Unreeled 89 sqcm/g	10g	B1119
Europa	C1001048	Sleeve Insert Open Both Ends Transparent Silica 15 x 180mm Europa		C1050
	C1001071	Glassy Carbon Chips Eurovector 2-3mm,	25g	C7003
	E1002527	Platinised Copper Oxide 10% Pt Isotope Grade Granular 0.2 to 0.5mm	2g	B1030
	E1002684	O Ring Europa		E1421
	E1002687	Scrubbing Tube Borosilicate		C1063
	E1005669	O Ring Europa		E1420
	Eurovector	Consumable Vit Function than FA Culture 4000 and business		V2050
	6062974	Consumable Kit Eurovector EA-Sulphur 1000 analysis	mporet	X3252
	6062977	Consumable Kit Eurovector EA-Hydrogen spares for liquid samples (low te	mperature)	X3253
	6062978	Consumable Kit Eurovector EA-Oxygen spares for liquid samples		X3254
	6062979	Consumable Kit Eurovector EA-O/H solid samples (high temperature)		X3251
	6063056	Consumable Kit Eurovector EA-CN 1000 analysis	-	X3250
	C10-017	Silica (Quartz) Wool Very Fine	5g	B1017
	E10103	Chrome Catalyst	100g	B1450
5	E10145	Nickelised Carbon 50% Ni Granular 0.85 to 1.7mm	5g	B1182
Eurovector	E10146	Nickelised Carbon 30% Ni Granular 0.3 to 0.85mm	5g	B1086
2	E10510	Nickel Wool Fine Wire	2g	B1007
Ш	E10514	Silica (Quartz) Wool Very Fine	5g	B1017
	E10521	Glassy Carbon Chips Eurovector 2-3mm,	25g	C7003
	E11521	Separation column O/H 1.5m stainless steel		E3036
	E11528-IG	Eurovector high resolution column (0.7m) for GC separation of C/N in IRM		E3037
	E12507	Ceramic Tube for Eurovector	2	C1102
	E12512	Reaction Tube Transparent silica		C1056
	E12529	Glassy Carbon Tube Eurovector		C7004
	E13502	Small trap with o-rings, threaded caps and fitting (to take 2mm tubing nuts)		E6101
	E13538	O-ring for ceramic reactor 17mm		E1506
	E13539	O-ring EVR for bottom quick fit 17mm		E1507



CF-IRMS analysis

Cross references

	OEM part	Description	Pack	Cat. No.
	Hekatech			
_	HE 468110	Ceramic Tube HT-O		C1103
ech	HE 33823800	Nickelised Carbon 50% Ni Granular 0.85 to 1.7mm 5g		B1182
cat	HE 33823850	Glassy Carbon Chips Eurovector 2-3mm,	25g	C7003
Hekatech	HE 3382500	Nickel Wool Fine Wire	2g	B1007
	HE 46860100	Glassy Carbon Tube Eurovector		C7004
	Thermo			
	0605470	Capillary SS 1/16 x 0.8 mm, 2m		F5170
	1040820	Prepacked GC reduction reactor tube 320x1.5x0.5mm Ceramic Copper W	/ire	X1506
	1040920	Prepacked GC oxidation reactor tube 320x1.5x0.5mm Ceramic,		
	4447000	Copper/Platinum/Nickel Wire		X1505
	1117332	Graphite Crucible for TC/EA	0.5	C7012
	1117400	Glassy Carbon Chips Thermo-Finnigan TC/EA3-4mm	25g	C7002
	1117401	Glassy Carbon Chips Thermo-Finnigan TC/EA	50g	C7015
	1117430	Silver Wool Very Fine Wire Unreeled 89 sqcm/g	2g	B1261
	1121030 1121120	GC Column TC/EA 0.6m 1/4 Stainless Steel O Ring TC/EA		E3035 E6053
	1121310	Glassy Carbon Tube Thermo-Finnigan TC/EA		C7001
	1121310	Ceramic Tube for TC/EA		C1101
	1121351	TC/EA Graphite Tube		C7010
2	1127500	Prepacked TC/EA Tube (ceramic and glassy carbon)		X7020
Thermo	1132080	H2O Graphite Tube for TC/EA		C7011
É	1136820	Spare Parts/Consumables TC/EA, OH Analysis (3000 Analyses)		X1136
	1141050	Reactor Kit TC/EA		X7007
	1185471	Spare parts/consumables for Flash 2000 HT & EA IsoLink CN/OH,		X1137
	1197480	OH analysis (3000 analyses) 1185471 Reactor kit Flash HT		X7008
	129 3150	NC 1000 an. Kit Flash IRMS		X1115
	1290340	Consumables Flash HT and TC/EA, OH-Analysis (1000 Analyses)		X1113
	19003770	NC 1000 an. Kit Flash IRMS		X1115
	26007931	NC separation column for IRMS		E3011
	28113102	Small trap with o-rings, threaded caps and fitting (to take 2mm tubing nuts)	E6101
	29000063	O Ring pack of 2 for E4405	,	E6054
	29030042	O Ring Nitrile Rubber	10	E1004
	29030042	Seal Viton Rubber Chamfered Square Profile	5	E1042
	29030331	O Ring Viton Rubber	10	E1001
	33822200	Silica (Quartz) Wool Very Fine	5g	B1017
	33822205	Silica (Quartz) Wool Very Fine	15 g	B1276
	33823800	Nickelised Carbon 30% Ni Granular 0.3 to 0.85mm	5g	B1086
	33825000	Nickel Wool Fine Wire	2g	B1007
	46802021	Pre-packed Ox/Red Reactor NCS DET. for Flash HT Plus (Argon sealed)		X1172

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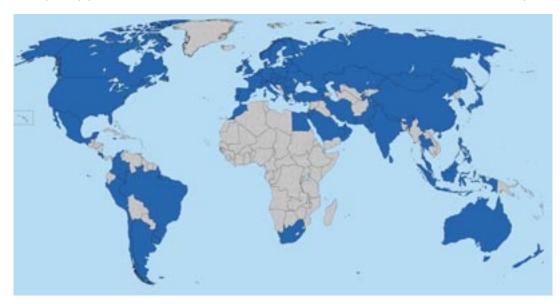
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Current sales areas world-wide

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Product sheets available, by analyser:

Inorganic (Please Tick)

inorganic (Please Tick)	
Bruker G4 Icarus CS	
Bruker G8 Galileo O, N, H	
Eltra CS2000	
Eltra CS800	
Eltra OH900	
Eltra ON900	
Horiba EMGA-620/621	
Horiba EMGA-800/900	
Horiba EMGA-821/921	
Horiba EMIA-320V2/920V2	
Horiba EMIA820V/320V/220V	
Leco 836/736 ONH/OH/NH/H	
Leco CS125/255	
Leco CS200/C200/S200/WC200	
Leco CS230	
Leco CS244/344/IR212/232	
Leco CS300	
Leco CS400/C400/S400	
Leco CS444/IR412/432	
Leco CS600	
Leco CS744/844	
Leco DH102/103/RH101	
Leco DH603	
Leco RH402	
Leco RH404	
Leco RHEN602	
Leco RO478	
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Leco TC300/RO300/TN300	
Leco TC436/TN414/RO416	
Leco TC500/600	
Leco TCH600	
Leco WR112	
Strohlein/Juwe NH-mat 243	

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Micro/CHN(OS) (Please Tick)

Title 3/ Cliff (33) (Freuse Frek)	
Costech ECS4010	
Elementar CHN Rapid	
Elementar Pyro Cube	
Elementar Vario Micro Cube	
Elementar Vario EL	
Elementar Vario EL Cube	
Elementar Vario Isotope Cube	
Europa Roboprep/ANCA/Integra	
Eurovector EA3000	
Eurovector EA3100	
Eurovector EA-3028HT	
Exeter CE240/440	
Hekatech HT-O	
Leco 900/932	
Leco Truspec Micro	
Perkin Elmer 2400	
Perkin Elmer 240ABC	
Picarro CM Model 02	
SerCon GSL/Integra	
Thermo EA1106CHNSO	
Thermo EA1108CHNSO	
Thermo EA1110CHNSO	
Thermo EA1112CHNSO/FLASH2000	
Thermo Flash 2000 IRMS	
Thermo Flash HT/HT Plus	
Thermo Flash Smart CHNOS	
Thermo NA1500NCS2	
Thermo TC/EA	
Thermo NA2500NCS	

Macro CHN/CNS (Please Tick)

	•
Elementar rapid CS cube	
Elementar Vario Macro	
Elementar Vario Macro cube	
Elementar Vario Max CHN/CNS	
Elementar Vario Max Cube N/CN	
Elementar Vario Max N/CN	
Leco CHN1000/CNS1000	
Leco CHN2000	
Leco CHN600/800	
Leco CNS/NS/CN2000	
Leco Truspec CHN/CN	
Skalar Primacs	

N/Protein (Please Tick)

Trease ricky	
Buchi DuMaster D-480	
CKIC TCN/CHN 2200	
Costech Turbo N	
Elementar Rapid N®	
Elementar Rapid N Cube®	
Elementar Rapid N exceed®	
Elementar Rapid MAX N exceed®	
Gerhardt Dumatherm®	
Leco 828 series	
Leco FP2000	
Leco FP228	
Leco FP328	
Leco FP428	
Leco FP528	
Leco FP628/CHN628	
Leco FP/CN928 series	
Leco TruMac	
Leco Truspec N	
Perkin Elmer 2410	
Thermo Flash 4000	
Thermo FlashSmart CHNOS/N-Protein	
Thermo NA1112Protein/FLASH2000	
Thermo NA2000/2100	
Velp NDA 701 Dumas Nitrogen Analyser	

Organic Carbon/Sulphur

(Please Tick)

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Eltra CHS-580/CHS-580A	
Eltra CS-500	
Eltra Helios	
Eltra SurfaceC-800	
Leco SC632	
Leco SC832 series	
Leco TGA601/701	
Leco RC612	
Leco SC144	
Leco SC32/132/232/CR12	
Leco SC432/444/CR412	
Leco RC412	



Product sheets (continued)

Trace (Please Tick)

Analytik Jena Multi NC2100-3100
Analytik Jena Multi EA2000
Analytik Jena Multi EA3000
Analytik Jena Multi EA4000
Analytik Jena Multi EA5000
Analytik Jena Multi X2000
Analytik Jena Multi X2500
Analytik Jena Pharma TOC
Antek 7000 from PAC
Antek 9000 from PAC
Antek MultiTek analyser from PAC
Dohrmann DC
Dohrmann DN
Dohrmann MCTS
Dorhmann DX
Elementar LiquiTOC
Elementar trace SN cube
Elementar Vario TOC Cube
Elementar Vario Trace S
Hach IL550 TOC-TN analyser
Metrohm 930 Combustion IC PP
Shimadzu TOC
TE Instruments
Thermo Euroglas All Instruments
TSHR Instruments

Other literature available:

Catalogues (Please Tick)

Capsules	
Inorganic	
IRMS Supplement	
Laboratory Analysis Service	
Macro CHN/CNS (including configuration guide)	
Micro/CHN (OS)	
Nitrogen / Protein	
Organic Carbon / Sulphur	

Reference materials/Standards for EA

Pure chemical standards	
Natural materials	
Inorganic materials	
Isotope reference materials	

Ion Chromatography (Please Tick)

Dionex AS40/ADSV/ASAP/AS50/AS IC vials	
Metrohm Peak IC Autosampler IC vials	

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