



KONIK MS Q12

series D

Discover the secrets of the unknowns



The universe of molecules... The world of KONIK

KONIK MS Q12

The most innovative technology in quality and productivity LC-GC-DIP/MS

The KONIK Group, with more than 30 years of experience in molecular analysis, has become established as a leading supplier of Chromatography, Mass Spectrometry and Sample Preparation Robotic systems. Our innovative designs, in true normalised modular chassis, provide unique analytical capabilities, turn-key solutions and differential specifications for the academic, R&D and industrial markets all over the world.

All KONIK systems are designed at our R&D Center in Barcelona and manufactured in compliance with the CE Mark with the highest European standards of quality and supported worldwide by factory trained engineers.

The KONIK Group is the only independent European Company with a full range of GC, HPLC, Sample Preparation and Introduction Robotics and Mass Spectrometry products.



The new KONIK MS Q12 Series D features a revolutionary design, providing the power of three mass spectrometers in a single platform with fast and easy interchangeable ionisation sources for EI/CI/+/-, ESI/APCI/+/- and DIP/DEP/EI/CI/+/- in a compact benchtop instrument.

The design concept of the KONIK MS Q12 makes it unique in the world. Besides unsurpassed modularity and flexibility, it provides utmost sensitivity, resolution, robustness, reliability and high speed not available in any other benchtop quadrupole mass spectrometer. All these features make it suitable for research and routine, qualitative and quantitative analysis.



Our target is to design and provide universal, automatic and reproducible sample preparation and sample introduction devices into any separation system (GC, HPLC, HPLC+HRGC, CE,...) coupled with unequivocal sample identification (GC/HPLC/MS,...), at the lowest detection limits, in any sample matrix, with the minimum possible error, in qualitative and quantitative analysis, with the lowest obsolescence, true integral modularity, upgradeability and ergonomoy, with easy maintenance and minimum down-time.

Absolutely KONIK





Unique automatic sample preparation and sample introduction

Robokrom™ Multimode Autosampler meets the most demanding requirements of accuracy, precision and performance. It can be easily configured in seven working modes: GC liquid sampler, HPLC liquid sampler, Head Space, Purge & Trap, Solid Phase Micro Extraction, Thermal Desorption and Fraction Collector.



OUTSTANDING FRONT END INLETS FOR GC-MS AND HPLC-MS

For outstanding GC-MS results you require not only an advanced MS, such as the KONIK MS Q12, but the best GC in the market to increase the potential synergy. The new KONIK 5000 B GC offers unmatched performance and features for second-to-none GC-MS results. **On top of the unique temperature and pressure control accuracies (0.1 °C oven stability displayed in real time and 0.001 psi pressure accuracy) the KONIK GC includes a tight injector (no septum purge) that prevents backstreaming of moisture and oxygen to the system, thus enhancing ionization efficiency while protecting sample integrity, inhibiting volatile loss and facilitating the heavy molecular weight compounds transmission to the column head...**

Furthermore, the KONIK 5000 B GC features a unique RAC® (Ready Active Control) system that allows the user to define the injectors, detectors and any peripherals under its microprocessor control, as well as defining the accuracy of the measurement. For instance, in GC-MS mode, the temperature control of the detectors can be off while the initial oven temperature precision can be set at +/-5°C, thus shortening the time between analysis as the instrument reaches the set operation parameters faster. Most of the time, while using GC-MS, the user does not require accurate GC retention time data as one can rely on the MS for identification.

The KONIK 5000 B GC features are completed by **two unique, patented, options not available in any other GC: Namely the KONIK Multidimensional HPLC+GC TOTAD® Interface and the KONIK Absolute Quantification System, the KONIK Quantitator®.** The KONIK 5000 B GC has been purposely designed to house both options, opening new dimensions in molecular analysis. With the first option installed, operating with HPLC+GC you enjoy not only simpler and faster sample preparation, but you can easily reach lower detection limits. With the second option, you do not need to use expensive reference standards in routine work while getting accurate quantification and can search for new synthetic, bioactive, molecules or metabolites even when you do not have reference compounds.

Likewise, for optimal HPLC-MS, you require a state-of-the-art HPLC. This is what the new KONIK 600 HPLC is all about. **This new KONIK HPLC includes among other standard features a multiramping oven, a column backflush option, a KONIK Quantitator® option for HPLC eluents.** It has been purposely designed for HPLC-MS and to be coupled to the GC for HPLC+GC-MS. KONIK offers as well a **patented on-line derivatisation system, the KONIK Derivatizer®, whereby non-volatile compounds trapped in the HPLC-GC interface are rendered volatile in order to enhance THE POWER OF THE PATENTED HYPHENATED MULTIDIMENSIONAL TECHNIQUES AND OPTIONS**



Direct GC/MS Interface

The high temperature GC/MS interface has been optimised over the years to prevent hot spots that degrade the sample and cold spots that condense the sample. PID temperature control up to 350°C allows accurate temperature settings and the SS/quartz transfer line assures a total inertness.

Versatile and inert EI and CI ion source

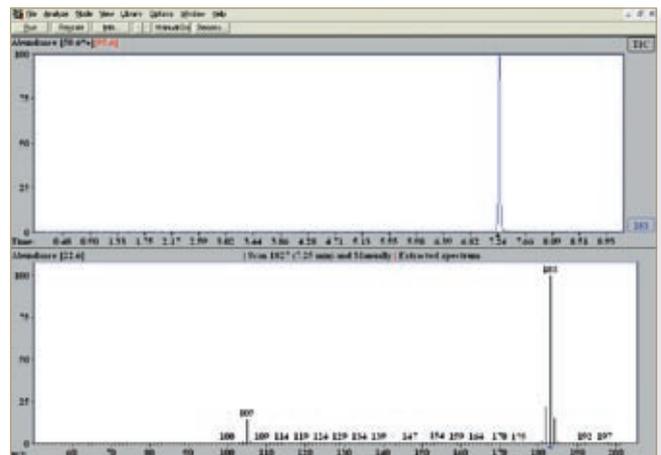
For both positive and negative ions as standard. The unique design of the ion source provides extremely fast exchange. Ultra-high efficiency Electron Impact and Chemical Ionization ion source with removable ionisation chamber, source exit lenses and long-life emission filament for fast and easy maintenance and replacement. Inert materials used in the ion source ensure better ionisation efficiency and long term day-to-day reproducibility. The user can choose between dedicated ion sources (for EI or for CI) for ultimate sensitivity or the new dual inlet source for both EI and CI without component replacement.

Temperature of the ion source is independently controlled up to 300°C. Emission current is programmable from 0 to 2 mA and electron energy from 0 to 250 eV for maximum flexibility, covering the widest range of applications.

The Chemical Ionization source with small aperture facilitates higher pressure and increases ion residence time to maximise the ion reaction and yields to better ionisation efficiency. EPC control of the CI reagent gas leads to maximum reproducibility and ionisation stability. The system can accommodate one or two reagent gases at the same time.



Exploded view of the main MS components



500 ppb of Benzophenone full scan in PCI mode m/z
183.0 extracted ion and spectrum



EI/CI fast exchangeable ionisation source

The most powerful vacuum system

It is housed in a high vacuum machined aluminium analyser chamber. Differential pumping between source and analyser is provided by two low-noise, air-cooled 200 l/s hybrid turbomolecular drag pumps, backed by a 5 m³/h (GC mode) or a 5 m³/h plus a 21 m³/h (LC or LC-GC mode) dual stage oil-sealed rotary vane pump. The differential pumping, unique in a benchtop MS, improves the overall instrument performance and enhances high mass transmission.

The low turbopump rotation nominal speed, only 36,000 rpm, allows them to be field-maintained, increases the pump life-time due to the lower mechanical erosion and therefore reduces drastically the system down-time and operational cost.

Large bore flanges for higher throughput and higher conductance increases the pumping efficiency.

The pump down time is extremely low, less than 3 minutes from atmospheric to operational vacuum. In addition, the high pumping capacity increases the system applications to widebore 0.53 mm ID columns with unlimited choice of stationary phases, allowing flows in EI mode up to 6 ml/min and fast solvent elimination in all the LC/MS modes.

Computer-controlled electrovalves and gauges provide automatic vacuum operation by a simple click of a mouse. All the heaters and high voltages are automatically switched-off in case of a leak. The venting valve can be attached to an inert gas supply to purge the complete system, avoiding Oxygen, moisture and water vapour contamination.



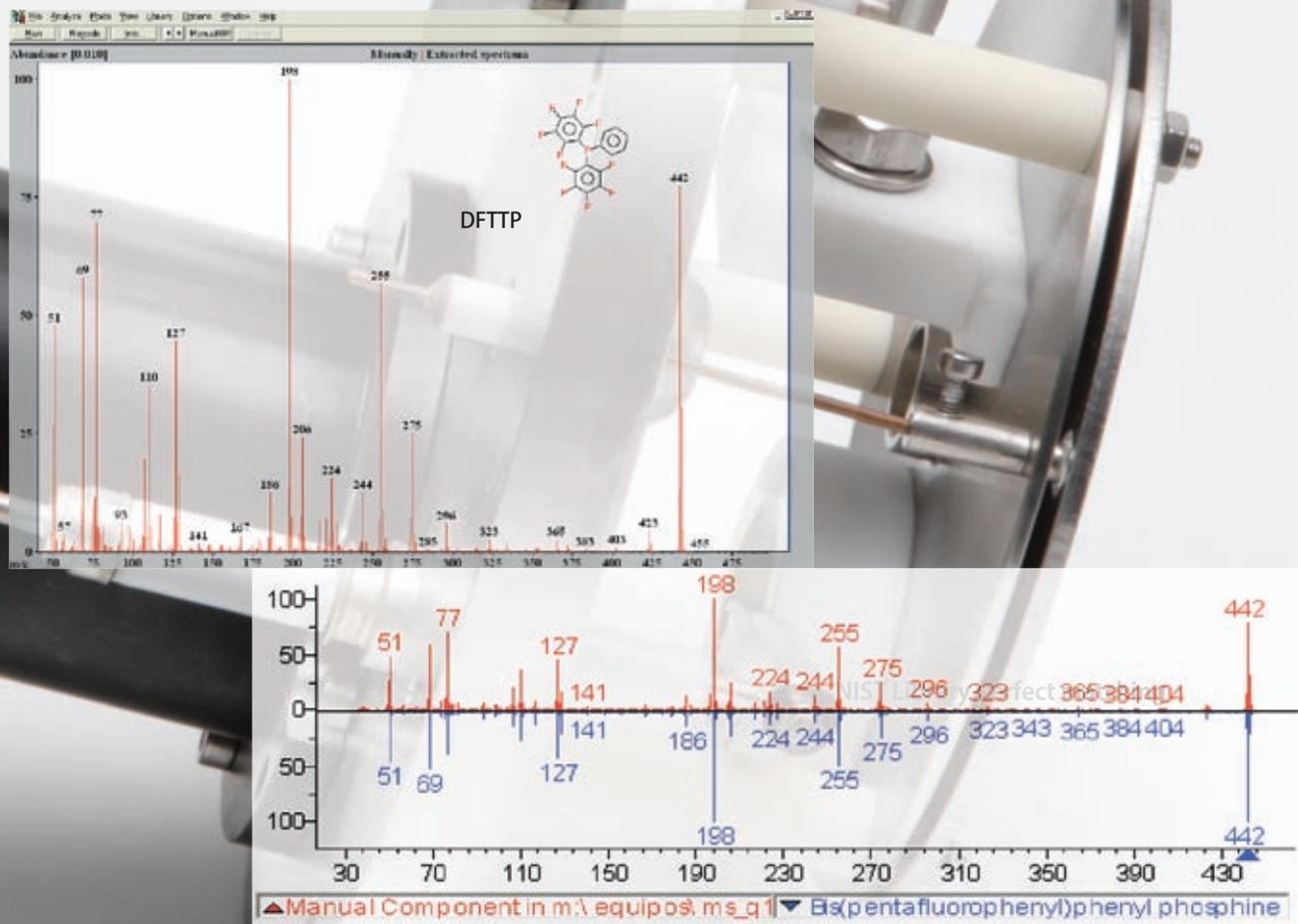
Long life photomultiplier detector

Detector for Positive and Negative ions

The KONIK MS Q12 detector is based in a ± 7 kV off-axis post acceleration high energy dynodes and a long-life gas-sealed photomultiplier that ensures years of reproducible analysis and reduces the operational cost to the minimum. The detector design ensures comfortable routine work and stable quantitation at high mass.

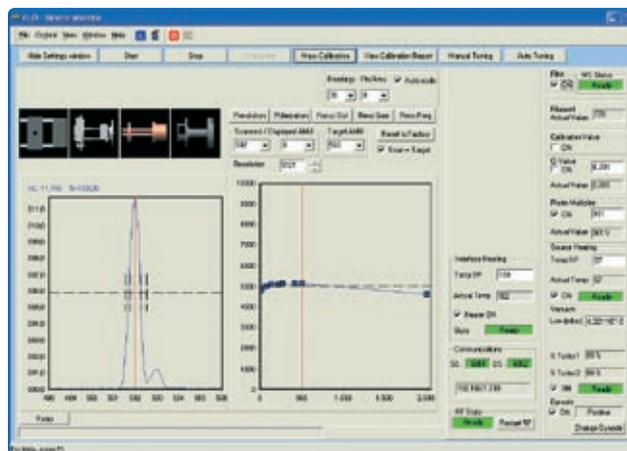
This photomultiplier-based detector is a new dimension from the commonly used electron multipliers from other manufacturers. The detector offers two or three orders of magnitude linear dynamic range more than similar benchtop MS without cross calibration and PMT tube lifetime is guaranteed to exceed ten years under normal operation.

The Focus-Out electrostatic lens focusses the ions exiting the quadrupole and injects them to the HED.



Perfect library match in any mode

Better resolution at high masses, acquiring 8 points/amu and 30 readings per point. Up to 64 points/amu can be scanned

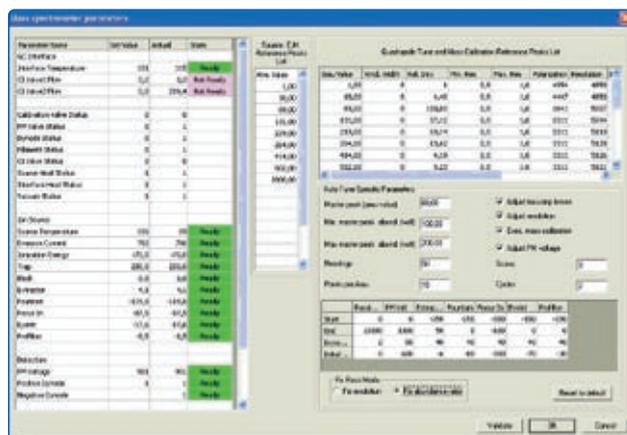


Maximum mass range and resolution on benchtops

There is a choice of three research-grade quadrupole analysers, each 220 mm long, with mass ranges of 4 to 1024, 4 to 1200 and up to 2500 amu; they are easily exchangeable and optimised for high sensitivity GC/MS, dual GC-LC/MS and dedicated LC/MS applications. Resolution can be adjusted up to 2.5M.

The extended mass range means one can analyse a broader range of compounds without the requirement of method development for higher masses derivatives.

Plug-in RF-only pre-filters enhance high mass transmission and prevent direct contamination of the quadrupole by filtering high masses. The pre-filters can be easily removed, for cleaning, leaving the quadrupole totally maintenance free.



MS parameters programming window

DIP/DEP capability expands the range of applications to high molecular weight compounds

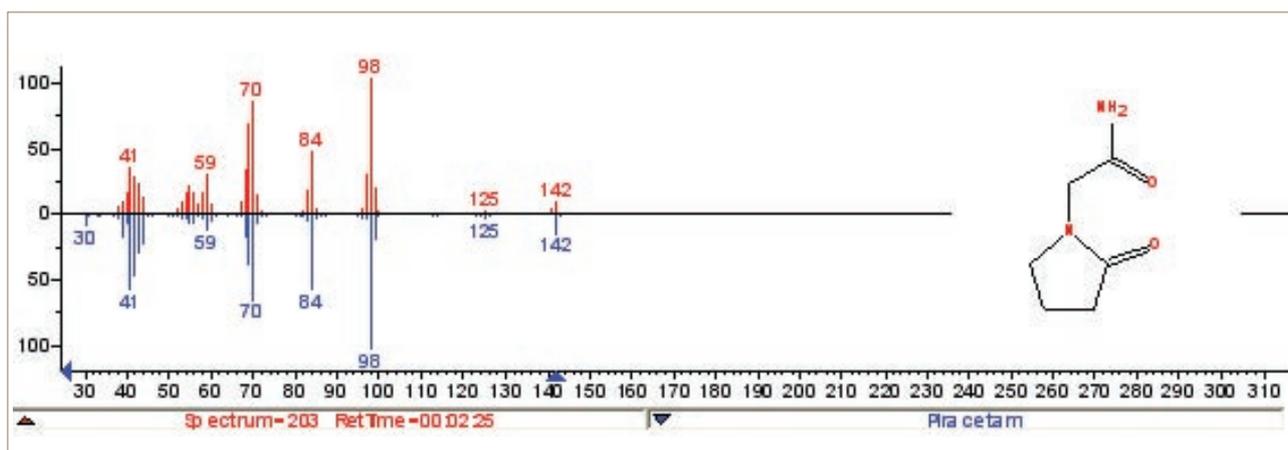


DIP/DEP fast exchangeable ionisation source (above) and DIP probe (below)

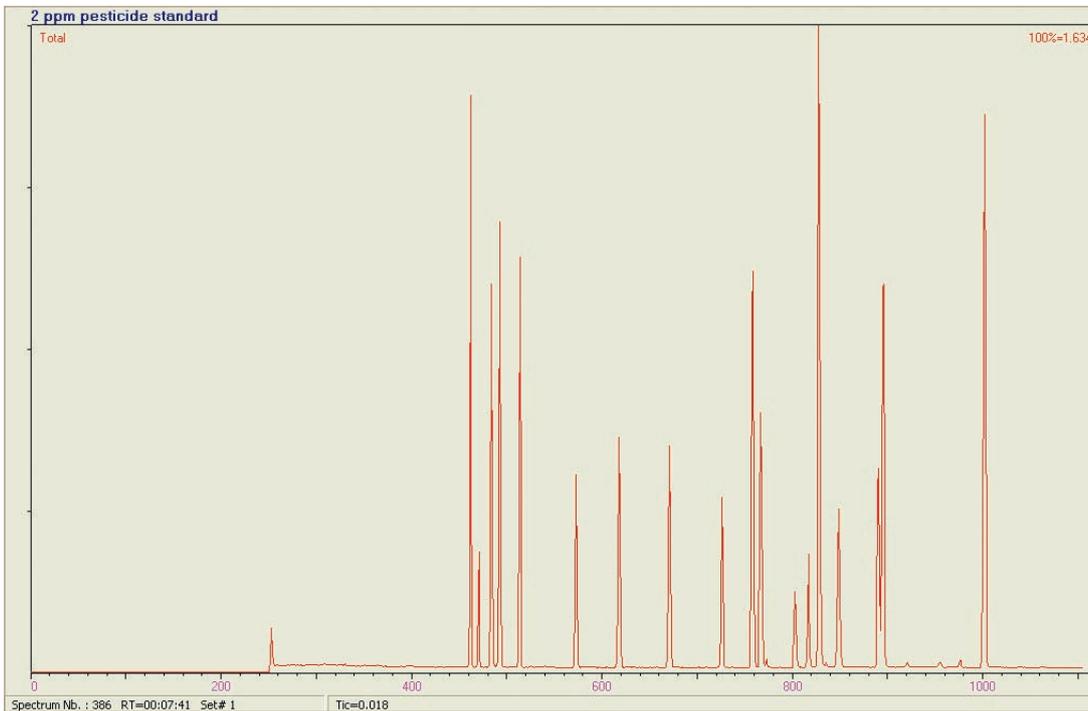
Direct Insertion Probe (DIP) and Direct Exposure Probe (DEP)

A dedicated fast exchangeable ionisation source allows both solid and liquid samples to be analysed without chromatography. This technique allows the analysis of pure sugars, aminoacids, polymers, pharmaceuticals, proteins and high molecular weight compounds that cannot pass through a capillary column.

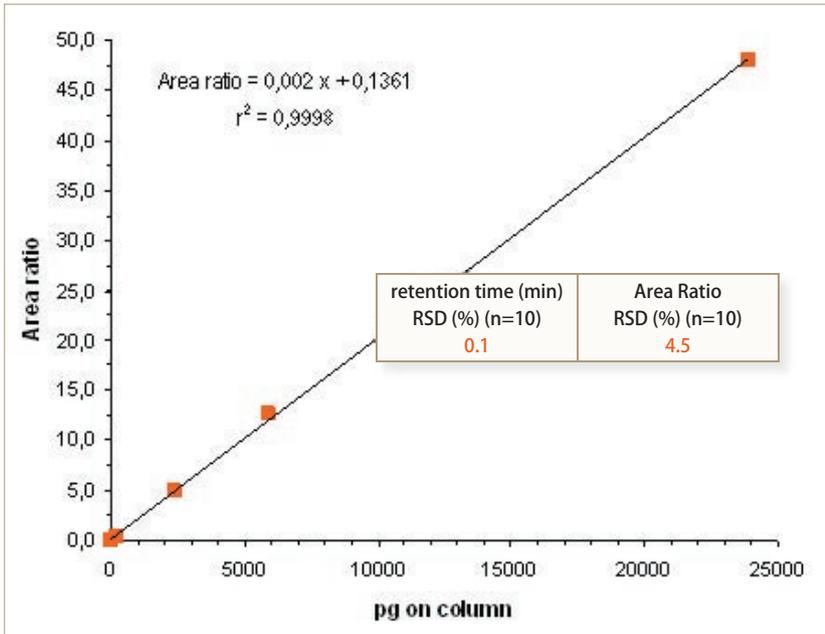
The KONIK DIP/DEP ionisation source combines both EI and CI for positive and negative ions. The same source can be used for standard GC/MS without the need to remove the capillary column for maximum flexibility. The spectra of the samples are obtained by placing a small quantity of pure sample inside a crucible onto the probe tip and inserting the probe inside the ionisation chamber. Temperature control of up to 450°C and temperature ramping are standard features.



EI direct probe analysis of Piracetam. The spectrum is obtained by placing the sample into the probe tip and inserting the probe directly into the MS. This technique can be used to determine the purity of a pharmaceutical compound

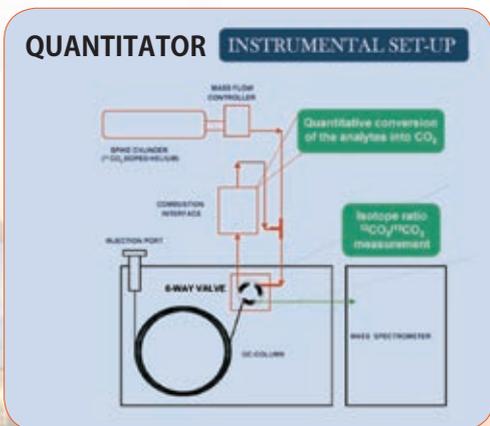


Organochlorine pesticide mix in SIM mode illustrate excellent chromatographic performance. Column: KAP-5MS, 30 m, 0.25 mm i.d., 0.25 micron film thickness. Carrier: Helium at 1 ml/min. Injection volume: 1 μ l



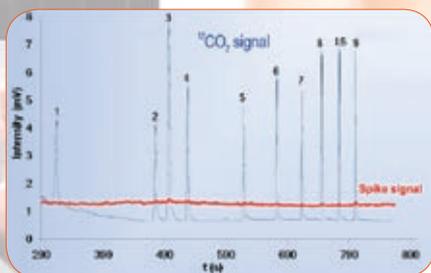
Calibration curve and precision for p,p'-DDE under SIM mode. Linear dynamic range about four orders of magnitude (1 pg to 25 ng on column)

The power of automatic sample preparation, chromatography and mass spectrometry in a single and unique system with innovative expansion capabilities



One of the latest developments (patented) we have introduced in our programme is a Universal Absolute Quantification System, the Konik QUANTITATOR®.

A small combustion furnace, placed at the end of the GC column in the KONIK 5000B GC, converts all the organic molecules to CO₂ (m/z 44). An accurately controlled flow of pure ¹³CO₂ (m/z 45) is leaked into the source providing a reference signal. The KONIK QUANTITATOR® provides an absolute quantification value for any analyte eliminating the need for individual reference standards.



Compound	Expected (DE %)	Found (DE %) n=3	Recovery (%)
1. Toluene	6.1	5.7 ± 0.3	93 ± 5
2. Ethylbenzene	6.1	5.9 ± 0.3	97 ± 5
3. m,p-xylene	12.2	12.3 ± 0.7	101 ± 6
4. o-xylene	6.1	6.2 ± 0.3	101 ± 5
5. Butyl butyrate	5.6	5.9 ± 0.3	105 ± 5
6. Undecane	4.7	5.0 ± 0.3	106 ± 6
7. Butyl hexanoate	5.6	5.6 ± 0.2	100 ± 4
8. Tridecane	5.1	5.3 ± 0.2	104 ± 4
9. Pentadecane	4.9	4.8 ± 0.2	98 ± 4

A single platform for any application



KONIK K2 Q12
MULTIDIMENSIONAL HPLC+GC-MS

Passion for innovation

New KONIK HPLC 600

It is the latest innovation in the well-established KONIK HPLC product line. It is based on new design features including: choice of 4, 6 or 8 solvents, multiramp column oven with temperature programming, membrane vacuum degasser, from nanoflows to semipreparative exchangeable pump heads, designed for HRGC and MS coupling.



New re-designed ESI/APCI LC/MS Interface

Positive and negative ionisation modes as standard, Electrospray Ionisation and Atmospheric Pressure Chemical Ionisation as standard allows the analysis of the widest type of compounds. The interface is based in a patent pending adjustable geometry spray orientation (from orthogonal to on-axis) and keeps the capillary and ion optics cleaner. Optimum electrospray droplet formation and desolvation thanks to the x-y-axis capillary fine adjustment.

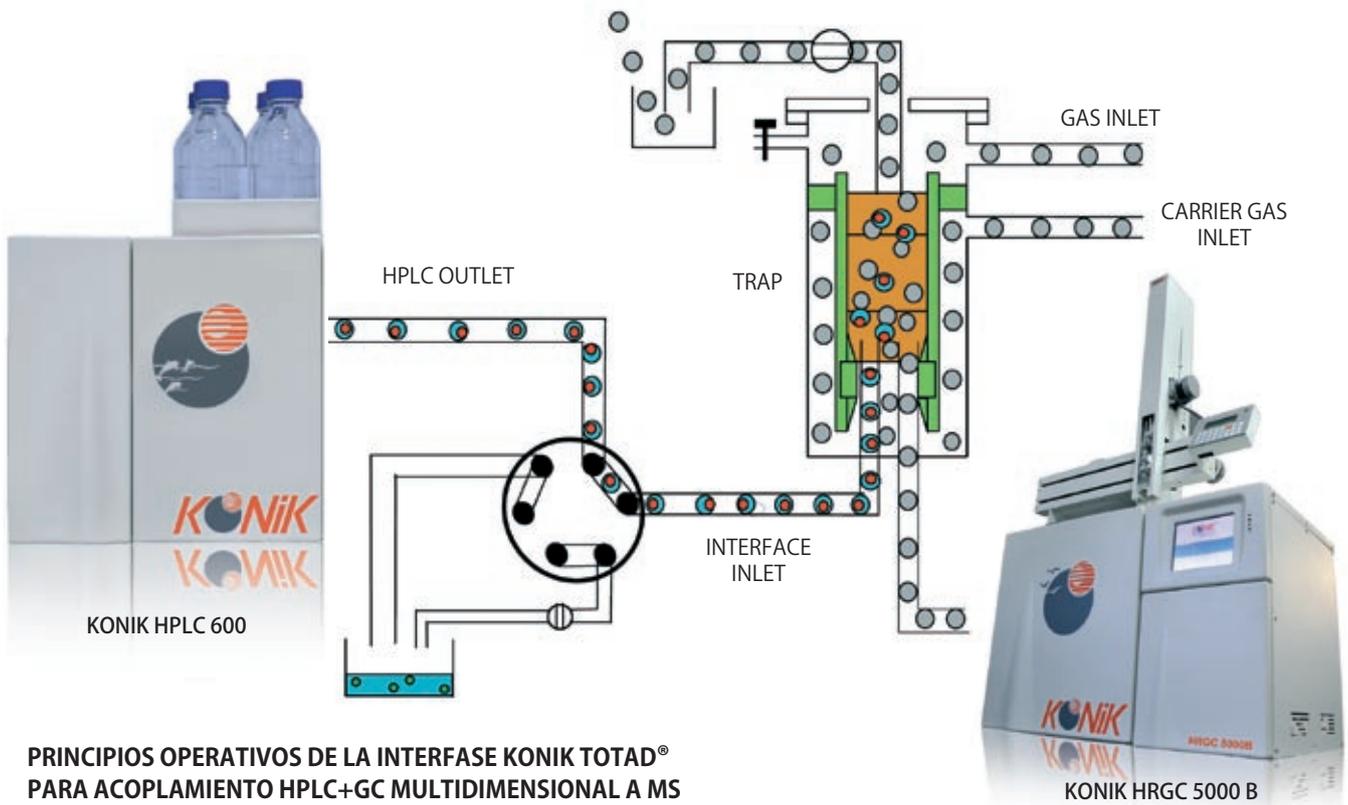


The exchange between GC/MS and LC/MS is accomplished in less than 15 minutes and the switch between ESI and APCI probes in less than 5 minutes without breaking the vacuum.

The interface includes full control of nebuliser gas, counter flow heated drying gas, sheath gas, heaters, cone voltages, needle voltage, etc. Ions are transferred to the quadrupole through an Hexapole based ion guide that ensures high mass transmission with improved sensitivity.

Operational flow rates comes from 2 $\mu\text{l}/\text{min}$ to 2.0 ml/min in ESI mode and from 0.2 to 2 ml/min in APCI mode. Low picogram level samples can be easily analysed.

Collision Induced Dissociation (CID) and multicharged ion analysis expands the mass range to thousands of amu, allowing the easy analysis of high molecular weight compounds and structure elucidation.



**PRINCIPIOS OPERATIVOS DE LA INTERFASE KONIK TOTAD®
PARA ACOPLAMIENTO HPLC+GC MULTIDIMENSIONAL A MS**

KONIK HRGC 5000 B

Opening New Dimensions

A- ANALYSIS OF PESTICIDES IN VEGETABLES BY HPLC+HRGC-NPD

PESTICIDES IN VEGETABLES

Fruits and vegetables

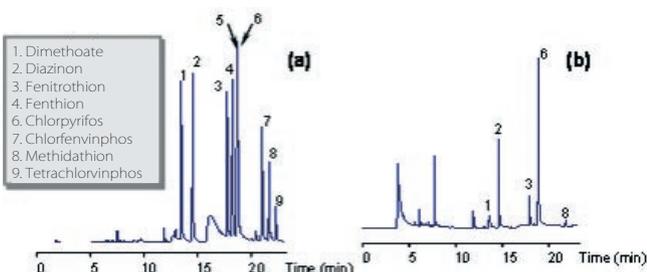
Sample (2.5 g) in 5 ml of Ethyl Acetate + 2g of Sodium Sulfate directly in ROBOKROM™ autosampler vial.

Extraction 1min with stirring. Injection to HPLC injection port.

KONIK K2 HPLC+HRGC-NPD

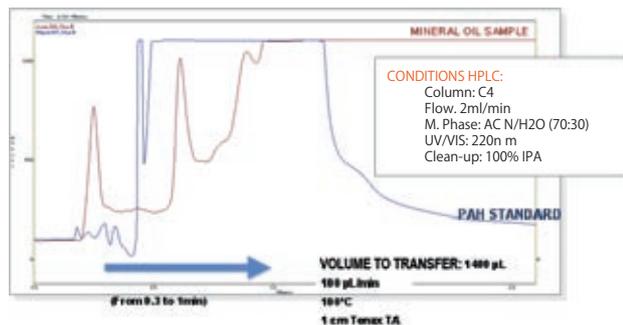


	LOD (µg/Kg) S/N=3	Precision (n=6)		
		RSD Rt (%)	RSD area (%)	Linearity (R ²)
Dimethoate	0.07	0.16	2.4	0.996
Diazinon	0.07	0.17	0.3	0.977
Fenitrothion	0.08	0.20	4.4	0.999
Malathion	0.07	0.21	3.6	0.991
Fenthion	0.06	0.21	8.4	0.999
Chlorpyrifos	0.06	0.20	2.0	0.977
Chlorfenvinphos	0.10	0.19	4.7	0.989
Methidathion	0.15	0.20	4.3	0.987
Tetrachlorvinphos	0.34	0.17	2.4	0.988



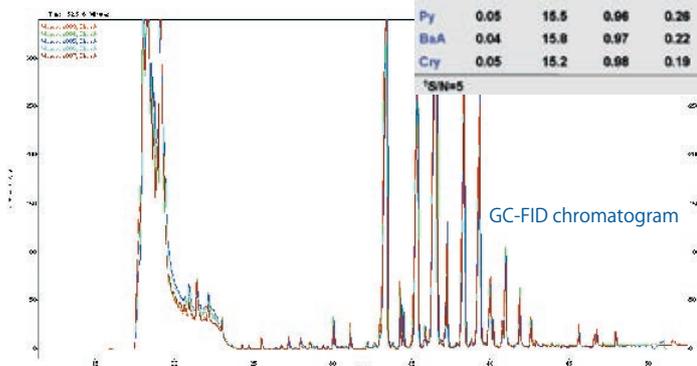
a) Tomato sample fortified at 50ml ml (K2-GC-NPD Chromatogram)
b) Real tomato sample (K2-GC-NPD Chromatogram)

B- ANALYSIS OF PAHS IN MINERAL OIL BY HPLC+HRGC-FID



PAH	Precision (n=5)			LOD ¹ (µg/ml)
	RSD Rt (%)	RSD Area (%)	R ²	
AcI	0.07	10.2	0.97	0.27
AcE	0.08	16.0	0.99	0.29
Fl	0.08	16.0	0.96	0.20
Pa	0.07	13.4	0.98	0.05
An	0.06	11.3	0.99	0.12
Py	0.05	15.5	0.96	0.26
BaA	0.04	15.8	0.97	0.22
Cry	0.05	15.2	0.98	0.19

KONIK K2Q12
HPLC + HRGC - MS

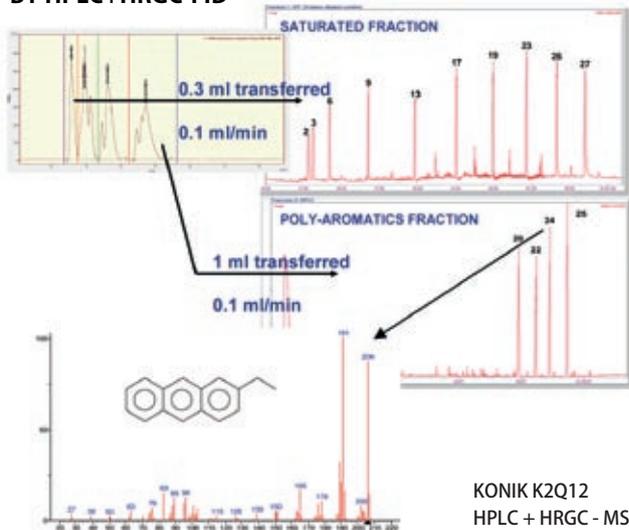


New KONIK HPLC+HRGC K2 System

The innovative patented TOTAD interface marries in synergy the separation and fractionation potential of LC and HPLC to the separation, selective detection, quantitation and identification of HRGC and HRGC/MS, opening new dimensions and pushing forward borders only limited by our imagination.

The benefits: better qualitative results and high selectivity by a dual column system, lower detection limits thanks to the enrichment stage by trapping of volatile compounds like in P&T methods, simplified sample preparation by the LC/HPLC fractionation stage, full automation by the Robokrom Autosampler and automatic switching valves, time saving and cost reduction by reducing all the usual sample preparation stage. New methods development allows you to explore the full potential of this new technique, sample integrity guarantee improves recovery and quantitation, unsurpassed flexibility by the use of any LC/HPLC column, polar and non-polar solvents, solvent volumes and trap material, analysis of any volatile and non-volatile compound by GC using the new (patent applied for) on-line derivatization.

C- ANALYSIS OF PETROLEUM FRACTIONS BY HPLC+HRGC-FID



KONIK K2Q12
HPLC + HRGC - MS

1	1,3,5-trimethylbenzene	14	1,3-dimethylnaphthalene
2	Tertbutylcyclohexane	15	1-phenyloctane
3	nC10	16	1-phenylnonane
4	indane	17	nC16
5	indene	18	1-phenyldecane
6	Transdecahydronaphthalene	19	nC18
7	1,2,3,4-Tetrahydronaphthalene	20	Anthracene
8	naphthalene	21	1-phenyldodecane
9	nC12	22	2-Methylantracene
10	Ditertbutylbenzene	23	nC20
11	1methylnaphthalene	24	2-Ethylantracene
12	1,3,5-Triisopropylbenzene	25	2-terbutylantracene
13	nC14	26	nC22 27 nC24

Direct injection of 20 µl of Olive Oil without any previous sample preparation step



Latest electronics technology at your service

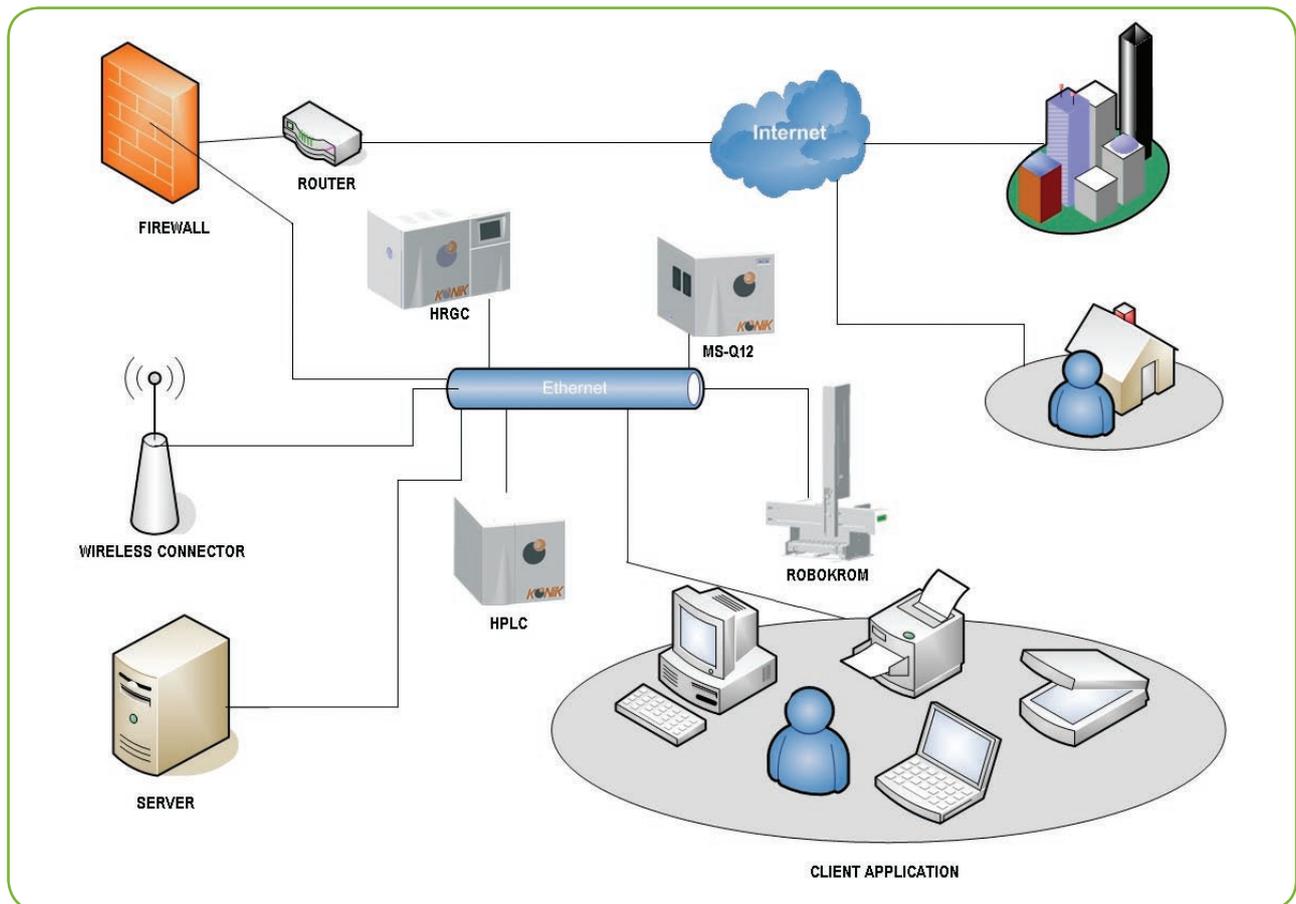
KONIK is offering the latest generation in terms of digital control. All the MS Q12 architecture is based in Field Programmable Gate Arrays (FPGAs) and CPLDs technology from the leader in the digital programmable logic devices. The instrument is not dependant on a particular microprocessor, which would have limited future growth. The advantages of the FPGA technology, with hundreds of thousand logical gates, allows immediate hardware and software re-configuration and ensures an unlimited upgradeability.

Full instrument telecontrol from the Internet

A standard Embedded PC running under Linux OS provides data transfer, TCP/IP communication and total instrument telecontrol from the Internet. This includes not only data processing, data transfer and data export/import but also total instrument control, servicing, diagnostics, software and firmware updates, tuning and mass calibration, inter-lab methods sharing, etc. from any place in the world. The flexibility of the MS Q12 is unmatched by any other benchtop MS in the market.

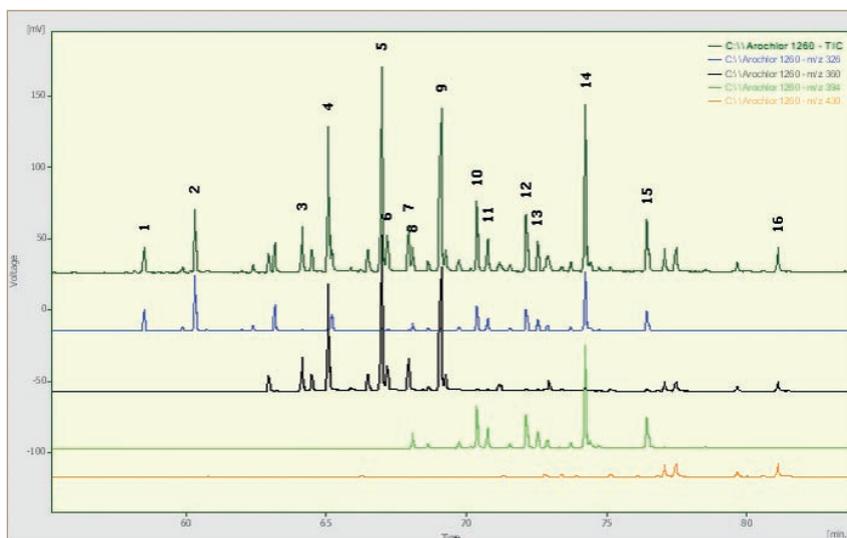


Instrument worldwide wireless telecontrol



GC-MS (SIM) chromatogram of
Arochlor 1260 (20 ppm)

	Compound	SIM ion (m/z)
1	PCB95	326
2	PCB101	326
3	PCB151	360
4	PCB149	360
5	PCB153	360
6	PCB132	360
7	PCB141	360
8	PCB179	394
9	PCB138 / PCB163	360
10	PCB187	394
11	PCB183	394
12	PCB174	394
13	PCB177	394
14	PCB180	394
15	PCB170	394
16	PCB194	430



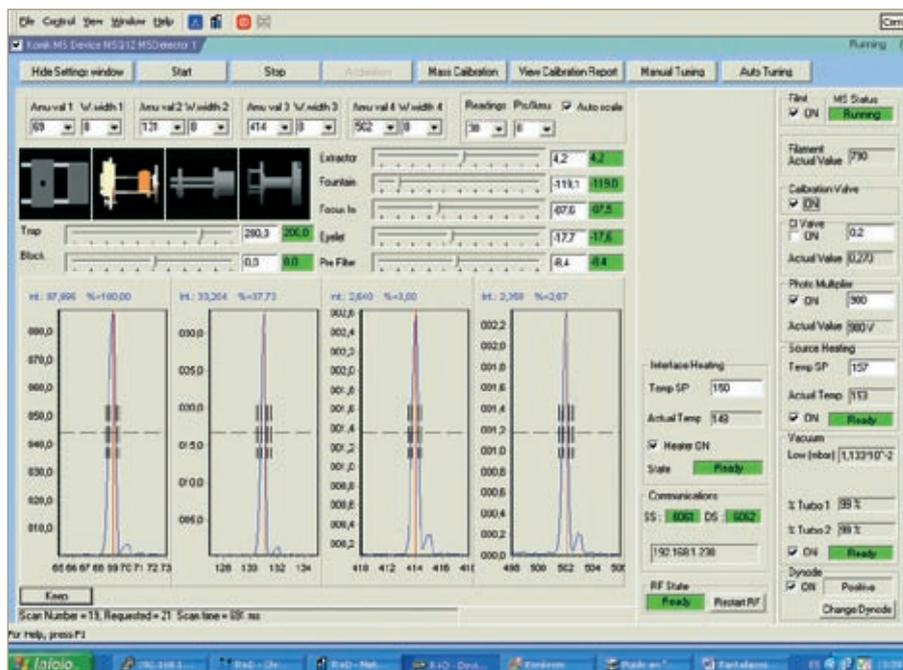
Autotuning and manual tuning

Tuning of the spectrometer and mass calibration are easily performed from a dedicated menu. All the mass calibration and tuning parameters are automatically saved in the method. One may have as many method files as you wish, depending on the working mode, resolution and sensitivity requirements. A particular method file can be uploaded at any time.

You can choose Autotune to ensure day-to-day reproducibility for routine analysis or manual tuning, so you can define your tuning parameters for maximum sensitivity, resolution or a user-defined spectral response.

Extreme sensitivity

The KONIK MS Q12 provides optimal sensitivity both in Full Scan and SIM modes. Absolute sensitivity in any mode can be enhanced in many ways; for instance, the unique enrichment capabilities that the Konik patented HPLC+GC interface offers, for many applications (residue analysis...), allows us to reach detection limits well below the required values for a vast amount of analytes and matrixes, while simplifying sample preparation.



Autotuning and manual tuning of main PFTBA calibration compound fragments

KONIKROM® MS Software

performance at your fingertips

Konikrom® MS Plus

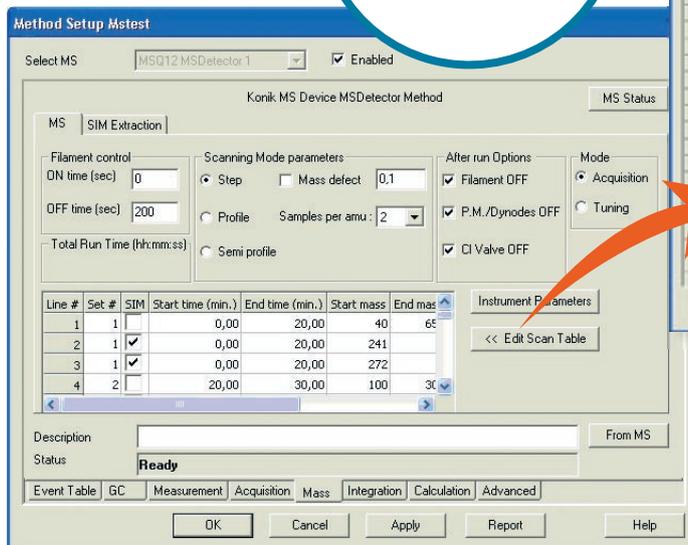
Is the latest and most powerful MS data handling system. Easy-to-use, Windows™ based software allows full instrument control for all the KONIK products through intuitive menus. Data acquisition, qualitative analysis, quantitation and reporting are performed easily through interactive and dedicated applications.

Ultra-fast scan rate!

The scan rate of the KONIK MS Q12 is faster than any other benchtop. Totally programmable and based in a 1MHz sampling speed ADC, we can acquire up to 33,000 amu/sec. Faster scan speed opens new dimensions in fast GC applications. High scan speed increases system throughput, precision and accuracy and overall spectral purity.

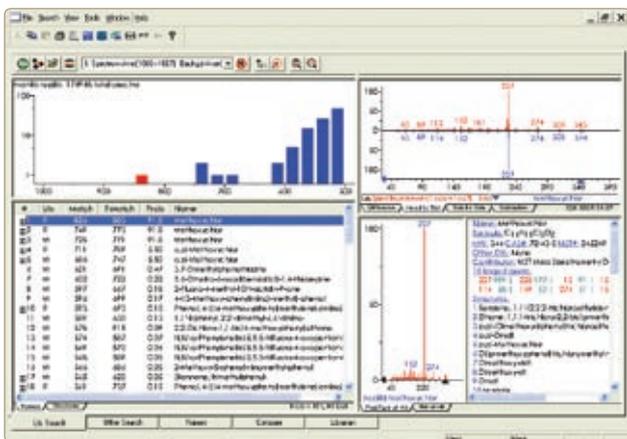
Single Ion Monitoring and Full Scan

SIM and FS spectra can be simultaneously acquired during the same run, providing more data and information in a shorter time. Three acquisition modes and several pre and post acquisition options expand the KONIK MS Q12 flexibility. **Step mode** is the regular acquisition mode for library search and standard routine analysis. In **Semi-Profile mode** you can acquire fixed 16 points per mass, obtaining real peaks rather than approximation bars and the peak centroid is automatically calculated. In **Profile mode** the analyst may choose the number of points per mass, from 1 up to 64, providing maximum resolution and sensitivity compared to any other quad or trap. Up to 50 sets of scan functions can be processed in any SIM, Full Scan or mixing mode.



Line #	Set #	SIM	Start time (min.)	End time (min.)	Start mass	End mass	Scan time(sec)	dwell time(sec)
1	1	<input type="checkbox"/>	0,00	20,00	40	65	400	604
2	1	<input checked="" type="checkbox"/>	0,00	20,00	241	5	300	100000
3	1	<input checked="" type="checkbox"/>	0,00	20,00	272	5	300	100000
4	2	<input checked="" type="checkbox"/>	20,00	30,00	100	300	500	2457
5	2	<input checked="" type="checkbox"/>	20,00	30,00	264	5	300	100000
6	2	<input checked="" type="checkbox"/>	20,00	30,00	302	5	300	100000
7	3	<input checked="" type="checkbox"/>	30,00	40,00	50	250	250	872
8	3	<input checked="" type="checkbox"/>	30,00	40,00	141	5	75	75000
9	3	<input checked="" type="checkbox"/>	30,00	40,00	272	5	75	75000
10	3	<input checked="" type="checkbox"/>	30,00	40,00	315	5	75	75000
11	3	<input checked="" type="checkbox"/>	30,00	40,00	440	5	75	75000

MS acquisition window



The 'Method Setup ECD_test' window displays the following parameters:

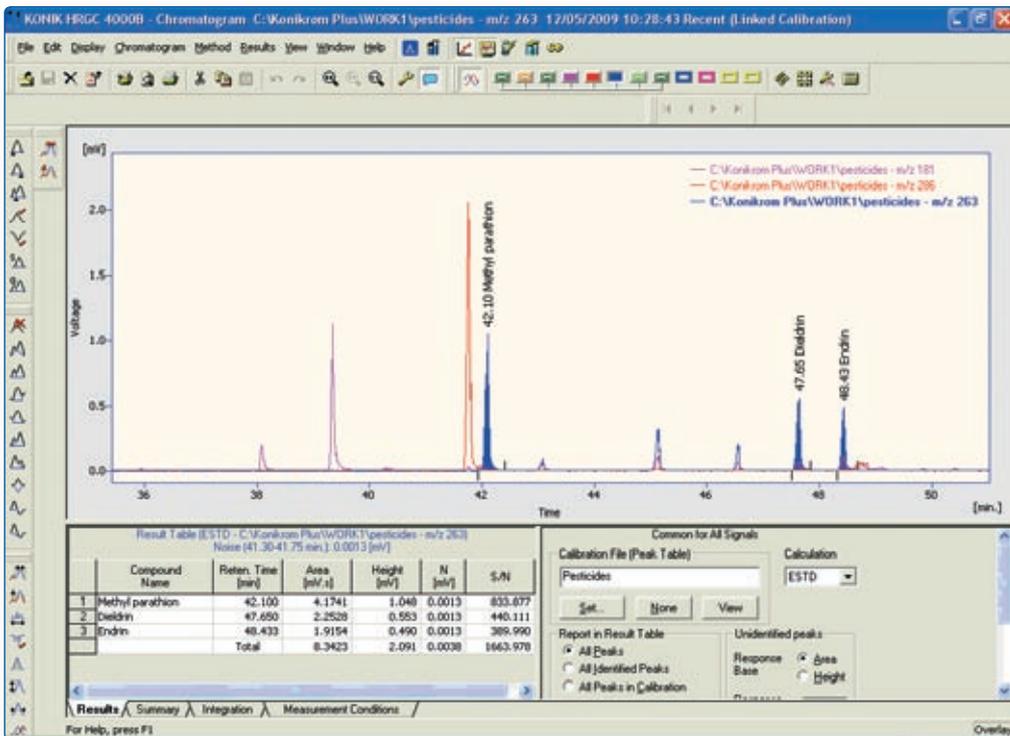
- Column A: Column Length (m) = 15, Column Diameter (mm) = 0.25, Outlet Pressure (psi) = 14.7
- Injection: Injection Mode = SL/SP, Split Ratio = 30, Splitless time = 00'50"
- Carrier Gas: He
- Injection Valve: Not Enabled

GC parameters programming window



NIST library search windows

Quick compound identification by matching EI mass spectra against reference NIST commercial library and/or customer-made libraries. Library searching feature helps you to identify unknowns and confirming target compound identification.



2 ppm pesticide standard Total Ion Current and main extracted ions integration window

The KONIK Group, more than 30 years of creative innovation

The KONIK Group's European Headquarter is located in Sant Cugat del Vallès, at the outskirts of the beautiful city of Barcelona. The exceptional and privileged environment surrounded by the Mediterranean Sea, the Pyrenees, Montserrat and Montseny mountains, with high quality of life has established a company culture of inspiration, strong commitment to quality and desire of excellence.

A 3000 m² premises dedicated to R&D and test operation includes process application and development laboratories equipped with the latest analytical systems and metrology facilities for demonstrating system performances and capabilities. All the instruments modules and subsystems are manufactured and assembled in different factory houses close to our headquarter.

Our American Headquarter is located in Miami, Florida. It provides marketing, sales, technical service and applications laboratory for all the North, Central and Southamerican countries.

Internationally, we are represented in more than 70 countries by local and regional offices staffed by yearly trained and experienced personnel, together with a network of sales and service distributors.

Since the beginning of our operations, the KONIK Group has established a leadership in niche markets through differentiation in the sales approach, technical experience, better product specifications, innovation of advanced designs and a wide spectrum of service abilities.

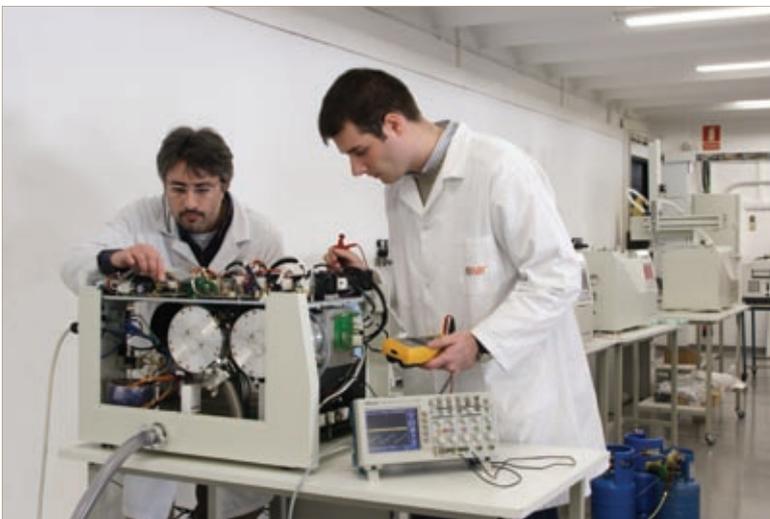


Inauguration of the i+R+D Centre

In this competitive world, performance is the key. Nothing can be left to chance. Our customer's reliability depends on our products. For this reason, quality has always been integrated in our Company, taking into account all the product's related issues, including marketing, sales, customer requirements, quality control, logistics and after-sales technical support.

The KONIK Group has committed to have the best products of the market and we have instituted a total quality programme to ensure achievement of this goal. We are accredited to the internationally recognised quality standard ISO 9001:2000 certified by SGS.

In addition, we are proud to have received the reputed Chamber of Commerce Awards for Internationalisation of our activities in 2004, for Innovation in 2007 and for Social Responsibility in 2009.





IKAI

Institute KONIK of Analytical Instrumentation

The KONIK Group's scope of supply is not only limited to provide the best products for every particular requirement, technical services and a few applications development. A complete integral analytical solutions and services are provided by our partner company IKAI through four different departments:

1) IKAI-SAS. Specialised Analytical Services

Analysis of any environmental, food, petrochemical or chemical samples:

- Contaminated land, soils and water
- Semivolatile organics, dioxins and furans
- Pesticides, herbicides and insecticides
- Volatile organics, BTX, oils,...
- Gas Analysis
- Petrochemicals. TOGA, RGA, NGA.
- Instrument Calibration
- Method Validation

2) IKAI-SAIT. Specialised Analytical Instruments Training

This programme is intended to complement other training programmes, tailoring the same to each particular customer background, profile, experience and current needs.

3) IKAI-PROJECTS. Turn-key analytical (R+D+I) Solutions

The scope of supply of this section runs from Turn-key design and execution of complete laboratories, including civil engineering, mainly focussed in developing countries.

4) IKAI-AER. Analytical Equipment Renting

This unique and innovative service offers renting of equipment on a daily, weekly or monthly basis, with or without specialised application chemists from our own staff. We can assist in the use of the equipment, or method development, customer staff training, etc.



Several photographs of the KONIK i+R+D Centre and Applications Laboratory



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Designed and manufactured by KONIXBERT HI-TECH, S.A. (KONIK-TECH) a KONIK GROUP Company integrating KONIK INSTRUMENTS INC, KONIK NANOBIOTECH, KONIK ENGINEERING, KONIK DIAGNOSTIKA and IKAI (INSTITUT OF ANALYTICAL INSTRUMENTATION).



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**KONIK-TECH is an
ISO 9001 Certified Company**



Design, manufacturing and commercialization of analytical instruments, laboratory equipment, consumables and accessories.

Technical information in this publication is for reference purposes only and it is subject to change without notice

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Innovation, Design & Manufacturing