

ROBOKROM®

Multimode Autosampler + 10 Working Modes

The new KONIK ROBOKROM® series is a powerful autosampler that meets the most demanding requirements of sensitivity, performance, accuracy and precision. Can be configured in 8 different working modes: Auto-sampler for GC and HPLC, Purge & Trap, Static Head Space, Solid Phase Microextraction, Thermal Desorber, Fraction Collector.

The KONIK ROBOKROM® can be expanded used also as a semi-automatic Microchemical Station combining heating, stirring, standards addition, reagents addition, evaporation, dosing, concentration, drying and injecting in a single autosampler.

The KONIK ROBOKROM® allows the sequential and automatic analysis of a great variety of compounds in controlled conditions with a high sensibility, reproducibility and accuracy. It avoids the stages of previous sample preparation and saves time and solvents in addition to human errors due to sample manipulation.

Technical Document
Note Reference:
RBK_LEA_E_0704

Product Reference:
KNK-419-236

EUROPE (Barcelona, Spain):
sales@konik-group.com
AMERICA (Miami, USA):
miami@konik-group.com

additional information at
www.konik-group.com



KONIK K2 Q12 LC+GC/MS with ROBOKROM®



ROBOKROM® Accessories

Powerful Multimode Autosampler

The ROBOKROM® is totally independent and can be fitted to any commercial Gas Chromatography and HPLC system. KONIK has developed a complete range of HS, P&T, SPmE and TD systems robust, efficient and versatile, so that any analytical problem implying volatile compounds can be solved in optimal conditions.

ROBOKROM® Specifications Common Features

- X-Y-Z Displacements.
- Symmetrical Horizontal Arm: Microcontroller can be located at either side.
- Vertical Arm: holds the needles and all syringes.
- 3 interchangeable Vial Trays: for 32 vials of 6, 10 or 20 ml, 105 vials of 2 ml and 171 vials of 1 ml.
- Optional Tray Temperature Control (TTC): all vials can be heated or cooled through a Peltier cell at once from 5° to 70°C depending on room temperature.

ROBOKROM® Programming

- Easy Menu Driven interactive programming through autosampler microprocessor keyboard (20 characters and 4 lines display). Optional PC programming and control through KONIKROM® PLUS Software.
- Method Linking/ Application Development Mode: Up to 10 separate sample methods can be stored, processed and linked by the stand alone unit. Unlimited methods with KONIKROM® PLUS Software.
- Other: Autodiagnosics. PID temperatures control. RS-232 and RS-485 communication ports.

Description of the Operational Modes

Basic GC Unit (HRGC+HRGC-MS)

Interchangeable Vial Tray: 171 vials of 1 ml, 105 vials of 2 ml, or 32 vials of 6 ml, 10 ml or 20 ml.

Syringe Volume: 0.5, 1, 2, 5, 10, 25, 100, 500 µl.

Injection Volume: Programmable from 0.1 µl to 500 µl depending on the syringe type.

Plunger Speed: Programmable from 1 µl/s to 5000 µl/s depending on the syringe type. Programmable up & down movement speed on sample, solvents and injector.

Injection Position: Left or right. Mobile X and Y axis fits any GC.

Injection Modes: External, Internal Double and Dual. Running same sample (dual) or different sample (double) on two columns.

HPLC Unit (HPLC+HPLC-MS)

Interchangeable Vial Tray: 171 vials of 1 ml, 105 vials of 2 ml, or 32 vials of 6 ml, 10 ml or 20 ml. EPA compatible.

HPLC Injector: 6-ports valve module box-fixed on the left/right side of the basic unit.

Sample Volume: Fixed loop or programmable from 0.1 µl to 500 µl depending on the syringe type.

Static Head Space Unit (HS)

Vial Tray: 32 vials of 6, 10, or 20 ml.

Vial Volume: 6, 10 or 20 ml with magnetic crimp caps.

Temperature control: In 5 different blocks: tray (up to 70°C), pre-desorption, desorption, valves and transfer line.

Vial Movement: Magnetic pick-up robotized arm.

Injection Volume: Variable, programmable by injection time.

HS Injector: Heated 6-ports valve module box-fixed on the left/right side of the basic unit. Heated transfer line.

Syringe: Special double needle.

EPC: Electronic Pneumatic Control of carrier and vial pressurization gas.

Optional: Sample stirring, fixed loop sampling.

Purge & Trap Unit (P&T)

Vial Tray: 32 vials of 6, 10, or 20 ml.

Vial Volume: 6, 10 or 20 ml with crimp caps.

Temperature control: all temperatures programmable: transfer line, valve, initial trap, desorption trap, bake trap,...

P&T Injector: Heated 10-ports valve module box-fixed on the left/right side of the basic unit. Heated transfer line.

Syringe: Special double needle.

Trap: Heated from -190°C (cryogenic option) up to 400°C. Optional cryotrap module with LN₂. Any trap available: Tenax, Silica Gel, Charcoal, OV10, mixed...

EPC: Electronic Pneumatic Control of carrier and vial pressurization gas.

SPmE Unit

Interchangeable Vial Tray: 171 vials of 1 ml, 105 vials of 2 ml, or 32 vials of 6 ml, 10 ml or 20 ml.

Syringe: Special needle adapter.

SPmE Fiber Assemblies: PDMS, PDMS/DVB, PDMS/Carboxen, CW/TPR, CW/DVB, ... from 7 µm to 100 µm bonded, non-bonded or crosslinked.

Working Mode: GC or HPLC µextraction.

Option: Sample stirring and sample heating (up to 300°C).

Thermal Desorption Unit

Interchangeable Vial Tray: 32 vials of 6 ml, 10 ml or 20 ml.

Syringe: Special needle adapter.

Purge and Trap with vial movement, heating and cryogenic option.

Fraction Collector Unit

Interchangeable Vial collectors Tray: 171 vials of 1 ml, 105 vials of 2 ml, or 32 vials of 6 ml, 10 ml or 20 ml.

Other features:

- Automatic and sequential sample collecting by time.
- Optional baseline monitoring (UV-VIS).
- Automatic waste collection.
- Intelligent volume calculation.

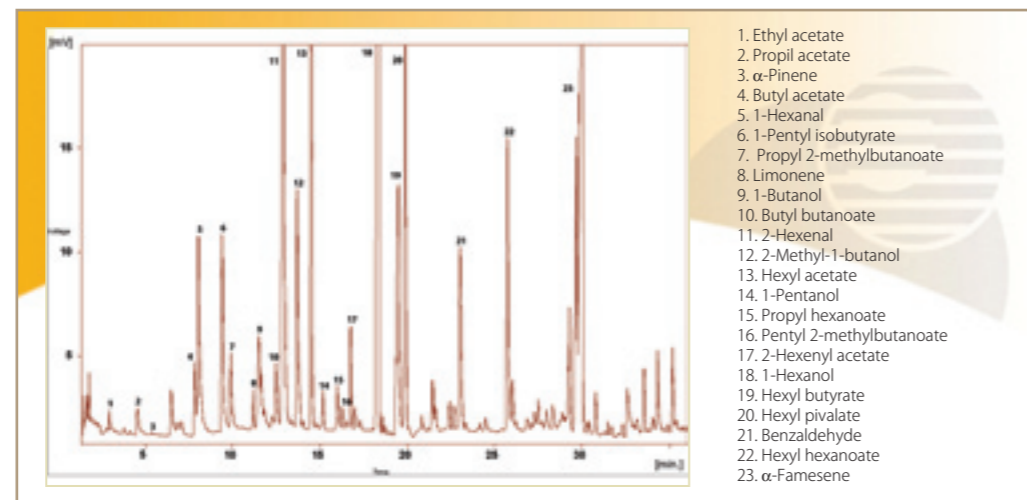
Optional:

Sample Preparation Station Unit

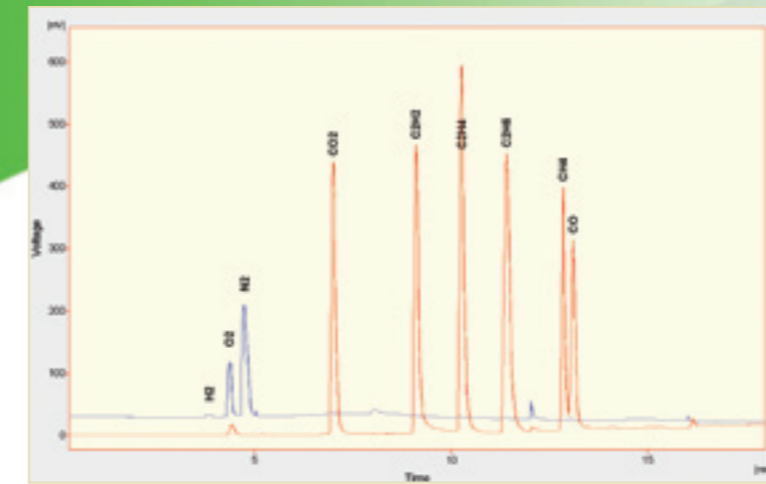
Vial Tray: 171 vials of 1 ml, 105 vials of 2 ml, or 32 vials of 6 ml, 10 or 20 ml.

Options: Evaporation, concentration by volatilization, drying, concentration adjustments (controlled dosing of reagents, standards and/or solvents,...)

SPmE : Analysis of Flavors in Apples



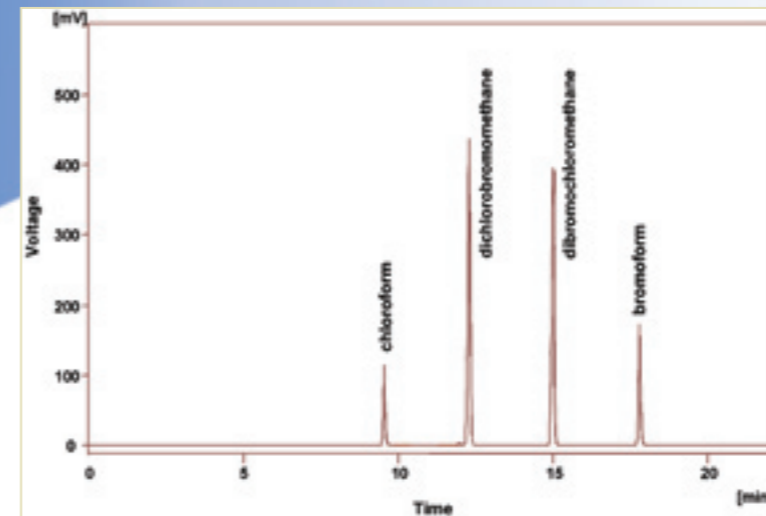
TOGA : Transformer Oil Gas Analysis by Head Space GC



	Rt (min)	% RSD Rt*	% RSD Area*	LOD (ppb)
Hydrogen	3.98	0.38	2.47	25
Oxygen	4.43	0.19	0.64	n.d.
Nitrogen	4.70	0.18	0.80	n.d.
Carbon dioxide	7.10	0.19	2.52	1
Acetylene	9.13	0.25	2.79	1
Ethylene	10.24	0.31	2.40	1
Ethane	11.31	0.43	2.56	1
Methane	12.95	0.05	2.34	1
Carbon monoxide	13.26	0.08	2.47	1

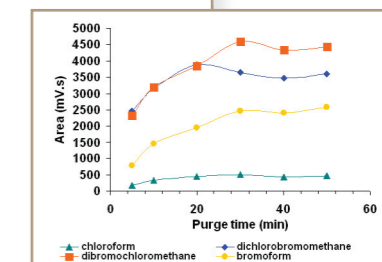
* 5 consecutive injections; n.d. not determined

Analysis of Trihalomethanes in Water by P&T



Left **Effect of the purge time on adsorption of THMs on K-VOCARB 3000**

Down **Chromatogram of THMs (5ppb) from spiked water by P&T-GC-ECD**



The universe of molecules... The world of KONIK
1978-2008, 30 years of CREATIVE INNOVATION

HEADQUARTERS
Europe, BARCELONA:
T (+34) 93 590 28 40 - F (+34) 93 590 28 44
Av. Cerdanyola, 73, 08172 Sant Cugat, Barcelona, SPAIN
e-mail: sales@konik-group.com

USA, MIAMI:
T (+1) 305 252 05 06 - F (+1) 305 252 08 09
12221 SW, 129th Ct., Miami, Florida 33186, USA
e-mail: miami@konik-group.com

Agents and distributors worldwide

KONIK-TECH is an
ISO 9001 Certified Company

www.konik-group.com



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

RBK_LEA_ES_0704