

MD Scientific ApS CHROMATOGRAPHY specialists

- Chemagen
- F*DBS
- GE Analytical Instruments
- Gonotec
- Interchim
- LCTech
- Paraytec
- Showa Denko - Shodex
- Thermo Scientific
- Tosoh Bioscience
- Viscotek
- Young Lin



MD Scientific

- *deliver*
- *install*
- *validate*
- *provide service*



www.md-scientific.dk
info@md-scientific.dk - +45 7027 8565

GPC / SEC systems

TDAmox Advanced GPC/SEC System



The Viscotek TDAmox is a comprehensive and powerful advanced detector Gel Permeation/Size Exclusion Chromatography system with temperature control from ambient to 80°C. It is specifically designed for the characterization of natural and synthetic polymers, copolymers, proteins, nanoparticles and other macromolecules.

TDA consists of four advanced detectors for macromolecular characterisation:

- refractive index for concentration
- viscometer for size and structure
- light Scattering for molecular weight
- UV for chemical composition



The TDA allows:

- comprehensive characterization of all types of macromolecules – proteins, natural polymers and synthetic polymers
- absolute molecular weight using Low Angle Light Scattering (LALS) or Right Angle Light Scattering (RALS)
- high-sensitivity Viscometer detector for intrinsic viscosity and structural information such as polymer branching
- molecular size information expressed as both the hydrodynamic radius (down less 1nm) and radius of gyration
- protein confirmation, stability, aggregation and quaternary structure
- copolymer, conjugates and blends can be fully characterized with UV detector option

HT-GPC – High Temperature GPC System

Viscotek's HT-GPC is designed specifically for the characterisation of polyolefins, and the system's advanced triple-detector technology is ideal for this purpose. With an operating temperature up to 160°C, the HT-GPC handles even the most difficult polypropylene samples. The instrument is modular, allowing flexibility, reliability and easy maintenance.



Flash chromatography systems

PuriFlash - Automated flash purification system



Ultra Performance Flash Purification (UPFP)



You can save time by using puriFlash columns filled with a very effective spherical silica with a particle diameter of either 50 μ , 30 μ or 15 μ .



Flash chromatography is a rapid form of preparative column chromatography based on optimised pre-packed columns through which solvents are pumped with a high flow. Flash chromatography purifies reaction products to obtain the desired compound.

Interchim's robust and efficient series of puriFLASH systems both *simplifies* and *improves* the purification processes and provides greater *flexibility* for chemists and biochemists.

Interchim's series of puriFlash systems from **puriFLASH 210** Academic Research System (flash columns up to 330 g) to industry standard **puriFLASH 430evo** and **puriFLASH 800** Pilot and Process Large Scale Purification (flash columns up to + kg) for outstanding pure products faster and with less volume of solvent. Operated with flow rates from 150 ml / min to 800 ml / min at pressure from 10 bar to 50 bar.

The puriFLASH systems' *modular construction* is easily adapted to users' needs, and it is easier to maintain and repair.

The *Software Integrated InterSoft* is comprehensive and user-friendly with the option of using all the leading brands of columns from 2.5 g to 1.6 kg (+ kg) and high capacity of samples with interchangeable different types of racks.

Instruments, kits, columns etc. for sample preparation analysis of for example foodstuff, feed og environmental samples



GPC Vario

The fully automated GPC system: from crude extract to cleaned extract.



- GPC with fractionation
- multiple injection of one sample
- variable racks, compatible with EVA

Kits for mycotoxin and histamine-analysis



Osmometres



For medical and pharmaceutical laboratories

Osmomat 030, 050, Auto

For the measurement of:

- osmolality
- colloidal osmotic pressure
- total osmolality

For polymer, biochemical and medical laboratories **Osmomat 010, 070, 090**

For the measurement of:

- number average molecular weight (Mn)
- total osmolality



Chloridmeter

The chloridmeter CM20 provides a quick and accurate determination of the chlorid ion concentration in liquid micro-samples with a minimum of 20 µl.

HPLC and GC instruments



HPLC instrument - YL9100 HPLC

The new generation of HPLC instruments

- smart, compact design
- extremely reliable
- YL-Clarity software
- easy to install and use
- high quality at reasonable prices



Gas chromatograph - YL6100 GC

Fully optimised GC with advanced pneumatic control

- pressure programming
- flow control
- high sensitivity
- gas saving
- automatic flame ignition for FID

UV imaging detectors



ActiPix SDI300

Surface Dissolution Imager

is a powerful UV area imaging system for quantitative imaging of surface phenomena of a wide range of substances such as APIs, tablets, formulations, gels, liquids and suspensions.

It is now possible to directly observe surface dissolution processes, which enable a better mechanistic processes of dissolution. Intrinsic dissolution rate (IDR) measurements can be achieved in <20 minutes.

The system is ideal for liquids, gels and powders for use in the development and formulation laboratories.



Nitrogen analysis instrument

Sievers Nitric Oxide Analyzer (NOA 280i)



Sievers® Nitric Oxide Analyzer (NOA 280i) is the most versatile detection system for the analysis of nitric oxide (NO) in gases and liquids.

Because of GE Analytical Instruments highly sensitive ozone-chemiluminescence technology, the NOA 280i can measure NO in both liquid and exhaled breath. NOA is a preferred instrument of choice among researchers worldwide.

Gas generators



- Hydrogen generators
- Zero air and ultra zero air generators
- Nitrogen generators

F-DBS' **hydrogen generators** are the alternative to gas cylinders in your laboratory. Purities up to 99.99999 % are available and the generators offer silent operation at pressures up to 10 barg (155 psig).

F-DBS' **zero air generators** produce purified air in laboratory quality for the most accurate and convenient calibration of the vehicle emissions testing equipment and for gas analysis instruments and all types of analytical instruments such as GC-FID. There are available models that can provide up to 30 l / min.

F-DBS' high-purity **nitrogen generators** use the pressure swing adsorption (PSA) technique to remove oxygen, carbon dioxide and water from compressed air. The resulting stream of high purity nitrogen gas 99.999% is ideal for applications including GC carrier gas, make-up gas, nuisance rally in must av Known flow applications. This very quiet and small device is a real table top unit and equipped with on board air compressors, requires electric power only.

Chemagic separation systems

Automated Nucleic Acid Isolation



chemagic Magnetic Separation Module I (MSM I)



Unique separation method
with magnetic beads

chemagic MSM I is a separation system (based on magnetic beads) to purification of high-purity DNA / RNA from various sample materials, such as blood, serum, plasma, swab, tissue, saliva, bacteria and plants.

The instrument's flexibility allows many uses such as PCR product purification, genotyping, virus detection, forensic investigation, GMO testing and HLA typing.

chemagic Prepito

chemagic Prepito is a mini-instrument based on Chemagen's proven technology for magnetic particle separation and is the best sample preparation system of this size. It utilizes many years of experience in automated nucleic acid isolation with high throughput instrument chemagic MSM I.



The well-known chemagic kits give a high yield and purity of DNA / RNA.

Columns - Tosoh Bioscience, Shodex, Thermo Scientific

Tosoh

- TSK-GEL PW, SW
RPC, HILIC, SEC, IEC, HIC,
AFC

Resins

- TSK-GEL, Toyopearl



Shodex

- Normal & Reversed Phase
- Ion Exchange Chromatography
- GPC & GFC (Aqueous GPC)



Thermo

- Hypersil GOLD HPLC
- BioBasic
- Hypercarb



In addition we have the following types of columns from other companies:

IAC, GPC, HPLC, Florisil, Flash, SPE, BIO, UPLC

See all our columns
se www.md-scientific.dk



Tel. +45 7027 8565 - Fax +45 7027 8566
info@md-scientific.dk - www.md-scientific.dk