

# Column range for mass spectroscopy



The Hypersil GOLD HILIC column range is designed for use with electrospray mass spectroscopy.

The hydrophilic interaction liquid chromatography (HILIC) range of columns from Thermo Fisher Scientific have been developed to aid the analysis of compounds which are traditionally difficult to retain using conventional C18 columns.

Hypersil GOLD HILIC from Thermo Fisher Scientific is available with 1.9, 3 and 5 µm particle sizes. HILIC works by incorporating water in the highly organic mobile phase to form an adsorbed water-rich layer on the polar stationary

phase surface into which analyte molecules partition. Retention is governed by dipole-dipole interactions and hydrogen bonding mechanisms.

Furthermore, the highly organic mobile phase contains low salt levels, making Hypersil GOLD HILIC columns ideal for use with electrospray mass spectroscopy.

Hypersil GOLD HILIC columns are designed for applications within drug discovery, food testing and environmental analysis.

[www.thermofisher.com](http://www.thermofisher.com)

## GE to supply ultrapure water system

An ultrapure water system will be used at Globalfoundries' new semiconductor manufacturing facility currently under construction at the Luther Forest Technology Campus, New York.

GE will design, supply and install an advanced ultrapure water system for the \$4.6 billion computer chip factory called Fab 8, which is due for completion in late 2012. GE's ultrapure water system will filter millions of gallons of water per day to be used in the semiconductor manufacturing process. It will significantly reduce operating costs and increase efficiency.

Ultrapure water systems are often considered the lifeblood of a semiconductor wafer fabrication facility, or 'fab'. During the production cycle, a wafer comes into contact with ultrapure water more than 35 times and any disruption of service or 'out-of-spec' water can compromise the wafers and even result in loss of product. In order to consistently manufacture superior semiconductor wafers, Globalfoundries requires the reliable production of ultrapure water 24 hours per day, 365 days per year.

GE's ultrapure water system consists of a series of water treatment technologies, pumps, storage tanks, ultraviolet sterilizers, ozone generators, ion exchange, an ultrafiltration system and a gas transfer membrane system, as well as commissioning and operations and maintenance.

Norm Armour, vice president and general manager of Fab 8, Globalfoundries, said: "Reliable, long-term production of ultrapure water will play a vital role in the successful operations of our new Fab 8 facility. We chose GE based on its extensive experience and ability to provide ongoing reliable technical and field support."

[www.ge.com](http://www.ge.com)

## Membrane cartridge for sparkling wine filtration

The Vinofil membrane cartridge from Poravair has been specifically designed for wine and sparkling wine filtration, as a final filter for cold biological stabilisation.

Vinofil incorporates a pre-filtration and final membrane layer of naturally hydrophilic polyethersulphone (PES) with a mirrored asymmetric pore structure. Incorporation of the pre-filter membrane considerably extends the life of the final layer, therefore producing longer on-stream

life and improved economics compared to traditional double layer filters. When combined with all-polypropylene components and high integrity manufacturing techniques, the Vinofil filter cartridge is ideally suited to the most demanding process conditions.

Vinofil cartridges are manufactured using components made from non-toxic and biologically inert raw materials. Multiple length cartridges with industry standard adapter styles

are produced to fit most housing designs and system sizes. All materials are traceable and CFR 21 listed for direct food contact. Cartridges are constructed in a clean room under tightly controlled conditions using advanced, highly specialized machinery. Quality and consistency of product is assured by the ISO quality control and manufacturing procedures, which are in place throughout all stages of manufacture.

[www.porvair.com](http://www.porvair.com)

## Sweetening systems purify biogas

Biorem has won two orders in North America for sweetening systems which will remove high levels of hydrogen sulphide from raw biogas, enhancing its value for use in renewable energy generation.

One of the systems will purify biogas captured from a landfill site while the other will purify biogas generated from the anaerobic digesters of a municipal wastewater treatment facility. The

biogas sweetening systems will be installed and operating this year.

Peter Bruijns, president and CEO of Biorem said: "These orders highlight the progress of Biorem's expansion into the renewable energy market and showcase the potential for our proprietary biological-based systems to significantly enhance biogas recovery. While biogas can be generated from a variety of sources, it often contains

impurities which must be removed. Using energy intensive solutions or chemical processes to purify biogas counteracts the value of biogas as a renewable energy source. As such, we expect our low-energy biologically-based systems will become recognized as an essential and economical component in biogas generation."

[www.biorem.biz](http://www.biorem.biz)