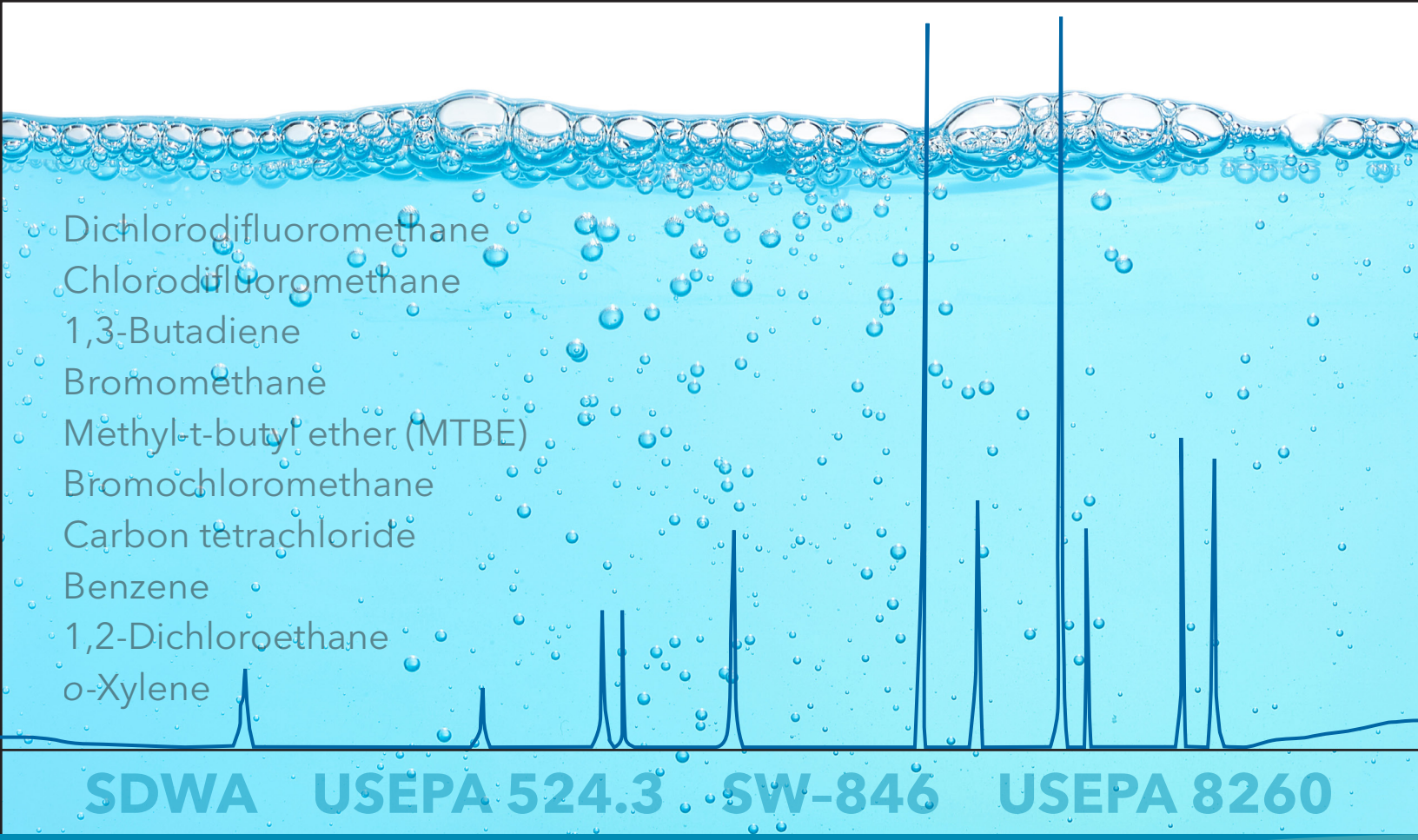


Eclipse 4660

Purge-and-Trap Sample Concentrator

O·I·Analytical
a xylem brand

Optimized for Superior Analytical Performance

Eclipse 4660 Purge-and-Trap Sample Concentrator

Graphical User Interface *The Eclipse 4660 is equipped with a color touch-screen display and Windows®-CE based user interface to program and monitor instrument operation.*

Hundreds of laboratories have evaluated and selected the Eclipse 4660 Purge-and-Trap Sample Concentrator for GC/GC-MS analysis of volatile organic compounds (VOCs). These laboratories have found that the faster cycle times, higher sample throughput, and exceptional reliability of the Eclipse 4660 directly improve their productivity and profitability.

The purge-and-trap technique involves multiple sample processing steps each of which directly affect analytical performance. Innovative, patented components in the Eclipse 4660 improve instrument operation, reliability, and analytical performance.

4100 Water/Soil Sample Processor

The 4100 Water / Soil Sample Processor is designed to process up 100 drinking water, wastewater, or soil samples and operate with a single or dual Eclipse 4660 instruments.

The 4100 is equipped with an innovative pneumatically-actuated cylindrical vial gripper. The VOA Constrictor™ mechanism lifts and transports VOA vials to and from the sampling system with exceptional reliability.

4551A Autosampler

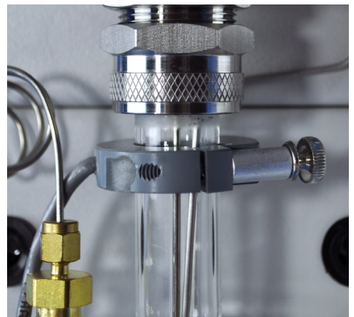
The 4551A Autosampler docks directly underneath the Eclipse 4660 and enables unattended automated analysis of 51 water samples. The 4551A can be equipped with options for cooling sample vials and adding internal standards to ensure compliance with quality control requirements in U.S. EPA methods.

Sparge Overfill Sensor

The Sparge Overfill Sensor checks for the presence of water in the sparge vessel to prevent introduction of a new sample if the previous sample has not drained properly.

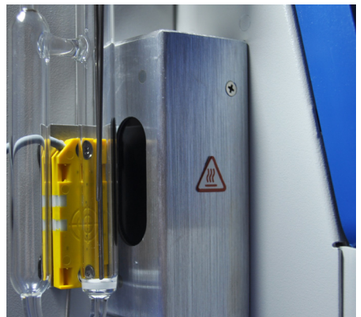
Patented Foam Sensor

The purge vessel can be equipped with a non-invasive optical sensor to prevent contamination from foaming samples and system downtime.



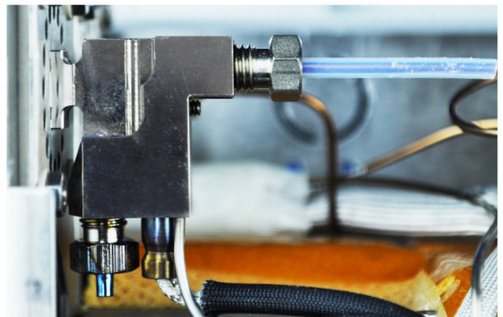
Patented Infra-Sparge Sample Heater

The patented Infra-Sparge sample heater heats the purge vessel to improve the purge efficiency of hydrophilic and oxygenated compounds as recommended in U.S. EPA method 524.3.



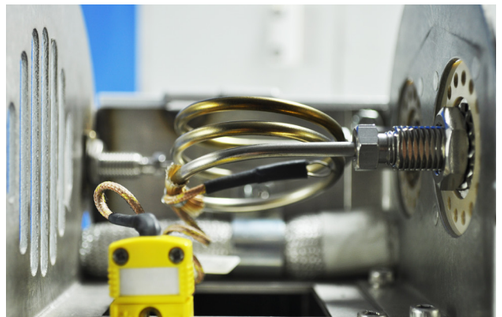
Patented Water Management System

The patented cyclone water management system in the Eclipse 4660 removes > 96% of water during the thermal desorb step outperforming all other purge-and-trap instruments.



Direct Trap Heating

Direct resistance heating of the trap at >1,000 ˚C/minute eliminates the need for a trap preheating step and decreases overall purge-and-trap cycle time.



Eclipse 4660 Specifications

Sparge Vessel	5-mL standard, 25-mL optional
Sample Heater (Option)	Infrared heating of sparge vessel with in-situ temperature measurement and feedback control
Foam Sensor (Option)	Optical sensor detects foam in sparge vessel and stops run to prevent sample pathway contamination
Sparge Overfill Sensor (Option)	Capacitance sensor detects presence of water in sparge vessel to prevent introduction of a new sample and overfilling if the previous sample has not drained properly
pH Detect™ Module (Option)	Automatically measures the pH of samples with date and time stamps stored in a log file for reporting or transfer to a LAN/LIMS system
Autosampler (Options)	4551A (water samples), 4100 (water/soil samples)
Trap	3.175 mm O.D. x 2.227 mm I.D. (0.125 in. O.D. x 0.105 in. I.D.)
Trap Heating	Direct resistance heating
Trap Temperature	Programmable ambient to 450 °C in Purge, Desorb, and Bake steps
Trap Cooling	> 240 °C/minute cooling rate (200 °C to 30 °C in < 50 seconds); Cool down to ambient temperature + 1 °C
Water Management	Eliminates > 96% of trapped water, maximum temperature 240˚C; Cool down to ambient temperature + 1 °C
Sample Transfer Line	1/16 in. x 48 in. standard (60 in. optional)
Sample Transfer Line Temperature	Programmable ambient to 295 °C
Operator Interface	Color LCD touchscreen display with Windows® CE-based software
Communications	Ethernet LAN connection
Gas Requirements	99.999% (UHP Grade) He or N_2 purge gas
Certifications	Safety: Low Voltage Directive 2006/95/EC, EN 61010-1:2010 3rd EMC: Directive 2004/108/EC, EN 61326-1:2006
Power Requirements	115 VAC ± 10% 50/60 Hz, 230 VAC ± 10% 50/60Hz 750 VA maximum
Dimensions	46 cm H x 40 cm W x 42.6 cm D (16.71 in. H x 15.5 in. W x 16.75 in. D)
Weight	14.5 kg (32 lbs.)
Patents	U.S. 5,250,093 / 5,261,937 / 5,337,619 / 6,894,784B2

O·I·Analytical
a xylem brand

151 Graham Road
PO Box 9010
College Station, Texas
77842-9010

(979) 690-1711
(800) 653-1711 USA/Canada
FAX (979) 690-0440

www.oico.com
E-mail: oimail@oico.com

Publication 19440514