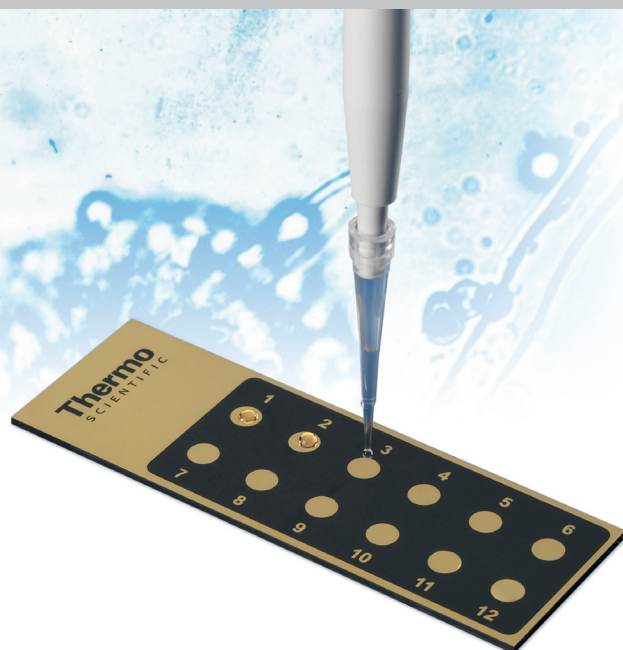


The Thermo Scientific DXR/SERS Analysis Package combines the speed, sensitivity, and specificity of SERS with a pre-configured, easy to use sampling set-up and procedures that facilitate getting good results without the typical learning curve and experimentation usually associated with SERS.

Thermo Scientific DXR/SERS Analysis Package

For Raman instrumentation



The Thermo Scientific DXR/SERS Analysis Package provides everything you need to perform Surface-Enhanced Raman Scattering (SERS) measurements. We've done the up front work to bring you a set of tools that are ready to go and optimized for a broad range of sample types. The kits include SERS substrates (colloids or slides), verification solution, accessories, and instructions, all designed to work with our line of Thermo Scientific DXR Raman instruments.

The DXR/SERS Analysis Package is a complete set of kits for bringing SERS into the laboratory. DXR™ Raman instruments, combined with SERS substrates, and

sophisticated Thermo Scientific OMNIC software means fast, selective analysis of low concentration samples, taking Raman to a powerful level. Sample analysis is as easy as putting a small amount of sample on a prepared slide or mixing it with a prepared colloid solution, and then collecting the data with the instrument. The SERS technique offers several advantages:

- Much lower detection limits compared to non-SERS Raman (100X or better sensitivity enhancement)
- Sensitivity and selectivity can be built into the SERS substrates
- Fast and easy to use
- Minimal sample preparation compared to other techniques

The DXR/SERS Advantage

	Traditional Techniques*	DXR/SERS
Analysis Time	A single run can take 30-45 minutes (this is after sample preparation)	Seconds to minutes for analysis
Sample Preparation	Complex and time consuming, may involve: (1-2 days) separation, extraction, amplification	Fast, little or no sample preparation, less involved
Consumables	Cost can vary greatly \$2 up to \$25 a test Other SERS tests can be \$100 a test or more	Tests are cost effective, Less than \$2 a test
Test Results	Selectivity and specificity can be challenging to achieve	By chemically modifying the surface of the SERS substrate analyte specificity can be added to the analysis
Sample Throughput	One run at a time up to 16 runs at a time depending on technique	High throughput possible using motorized stage and multi-spot microscope slides
Verification Solution	Effective techniques have a means of testing their performance	Kits include solution to verify SERS performance

* Traditional techniques can include polymerase chain reaction (PCR), enzyme-linked immunosorbent assay (ELISA), capillary electrophoresis (CE), gas chromatography – mass spectrometry (GC/MS), and liquid chromatography – mass spectrometry (LC/MS)



Our DXR/SERS kits make SERS easy and eliminate the experimentation and guesswork often required to get started in adding SERS to the laboratory. By offering all the parts necessary for doing SERS we make it possible for you to work on solving your problems without the need to learn a whole new discipline.

The Thermo Scientific SERS package includes a verification solution, which provides verification of a good SERS response for a set of conditions. It provides a rapid check that substrates are viable and performing appropriately.

Specifications

Number of Samples

- One bottle of 100 mL of colloid could provide enough material to analyze 50,000 to 100,000 samples, depending on how many microliters of colloid are used per analysis
- The gold multi-spot slides included with the colloid kits contain 5 microscope slides, each with 12 individual spots

The DXR/SERS Analysis Package Kit Options

Basic Colloid Kit

- 70 nm spherical gold colloid, 100 mL, in water
- SERS Verification Solution
- Gold multi-spot microscope slides
- Micropipette kit
- Instructions

Designed as a great starting point using SERS without the need to experiment with a range of colloids. The 70 nm size colloid is a good starting size that works with all laser wavelengths we offer.

Exploratory Colloid Kit

- 4 different spherical gold colloid sizes (25 mL each of 30, 50, 70, and 90 nm diameter, in water)
- SERS Verification Solution
- Gold multi-spot microscope slides
- Micropipette kit
- Instructions

Designed to bring SERS into the laboratory with some flexibility and more sampling options. Ideal for a range of samples and use with multiple lasers.

Optional Accessories

- SERS Slide holder
 - Holds 2 slides
 - With DXR Microscope: requires a motorized stage and well-plate insert
 - With DXR SmartRaman version: requires the well-plate toolhead and UPS Accessory
- Ideal for automation, high throughput
- Recommended for use with Array Automation software add-on

Instrument Specifications

For detailed DXR Raman instrument specifications, please see the individual specification sheets for each instrument.

OMNIC Software

For detailed information, please see the OMNIC™ specification sheet.



Thermo Scientific DXR SmartRaman and DXR Raman Microscope



www.thermoscientific.com

©2010 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific Inc. and its subsidiaries. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

Africa-Other +27 11 570 1840
Australia +61 3 9757 4300
Austria +43 1 333 50 34 0
Belgium +32 53 73 42 41
Canada +1 800 530 8447
China +86 10 8419 3588

Denmark +45 70 23 62 60
Europe-Other +43 1 333 50 34 0
Finland/Norway/Sweden +46 8 556 468 00
France +33 1 60 92 48 00
Germany +49 6103 408 1014

India +91 22 6742 9434
Italy +39 02 950 591
Japan +81 45 453 9100
Latin America +1 561 688 8700
Middle East +43 1 333 50 34 0
Netherlands +31 76 579 55 55

New Zealand +64 9 980 6700
South Africa +27 11 570 1840
Spain +34 914 845 965
Switzerland +41 61 716 77 00
UK +44 1442 233555
USA +1 800 532 4752



Thermo Electron Scientific Instruments LLC.
Madison, WI USA is ISO Certified.

PS51938_E 05/10M

Thermo
SCIENTIFIC