

In this issue

- Spectrometer for Low-light Level Applications
- Low-cost NIR Spectrometers
- Annual Service Package
- Miniature Spectrometer
- Book: Optical Spectroscopy in Chemistry and Life Sciences
- SpectraSuite, A New Generation of Spectroscopy Software!

Ocean view

Lots of News:

This newsletter contains lots of interesting information both for experienced Ocean Optics spectrometer users as well as potential new users. There are a number of services that we provide that are not always known to our clients. I have made a short review hereunder.

- Ocean optics has an ASP program that entitles customers for a free calibration and extends the warranty with one year.
- We can change gratings, slits, detectors etc. should you wish to change an existing configuration.
- If you are not certain a system will fit your needs buy a preconfigured system and have it changed later to fit your needs.
- Want to check out the options ? Give us a call, visit us or meet us at any of the exhibitions we attend. Like to work through a distributor ? There is always a distributor close to you that can provide support.

Ocean Optics has sold a lot of spectrometers to so called "private labelers". In most cases also for these systems we can change the configuration or provide an extra year warranty and free calibration.

Enjoy Reading!

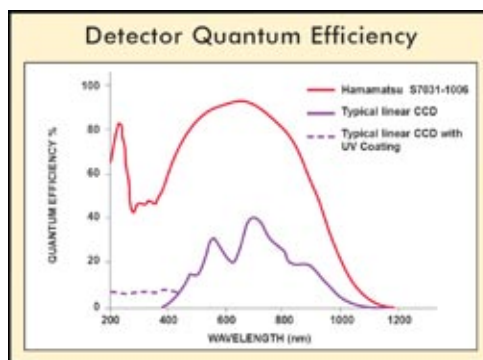
Kees van de Steeg
Managing Director

Spectrometer for Low-light Level Applications



€ 8.814,-

film reflectivity. The detector is TE-cooled (down to -10.0 °C), resulting in less dark noise. Because of the low noise and dark signal, you can set the integration time of the spectrometer (analogous to the shutter speed of a camera) from 7 milliseconds to 10 minutes, with virtually no spectral distortion.



Detector:	Hamamatsu S7031-1006
Pixel:	1024 x 58 (Effectively)
Pixel well depth:	300.000 electrons/well
Detector range:	200-1100 nm
Quantum efficiency:	90% peak
Integration time:	7 ms to 10 min
Signal-to-noise:	1200:1 single acquisition
Temperature limits:	0 °C to 50 °C; 30 °C below ambient with TE cooler

Low-cost NIR Spectrometers

DTS NIR Spectrometers are compact, low-cost NIR systems that are powered by MEMS architecture. Available in 0.9-1.7 μm, 1.7-2.5 μm and 1.1-1.3 μm wavelength ranges, the spectrometers have no moving parts, and feature a single-element InGaAs detector.



From € 7.739,-

The QE65000 is the most sensitive spectrometer we have ever developed. We can achieve up to 90% quantum efficiency (defined as how efficiently a photon is converted to a photoelectron) in the QE65000 by binning a column of pixels. Most of our other spectrometers utilize a linear CCD. With the "2D" detector in the QE65000, we bin a vertical row of 64 pixels, which not only increases the quantum efficiency, but also improves signal processing speed and the signal-to-noise ratio.

The QE65000 Spectrometer is a great option for low-light level applications such as fluorescence, Raman spectroscopy, DNA sequencing, astronomy and thin-

Annual Service Package

Ocean Optics offers Annual Services Packages (ASP) for many of its spectrometer models. An ASP is an economical way to extend the standard one-year warranty on your Ocean Optics spectrometer to two years. An ASP offers several benefits that include:

- One Factory Calibration & Certification
- Extended warranty, parts and labor
- Labor Charge Waiver for factory modifications

Annual Service Package Programs:

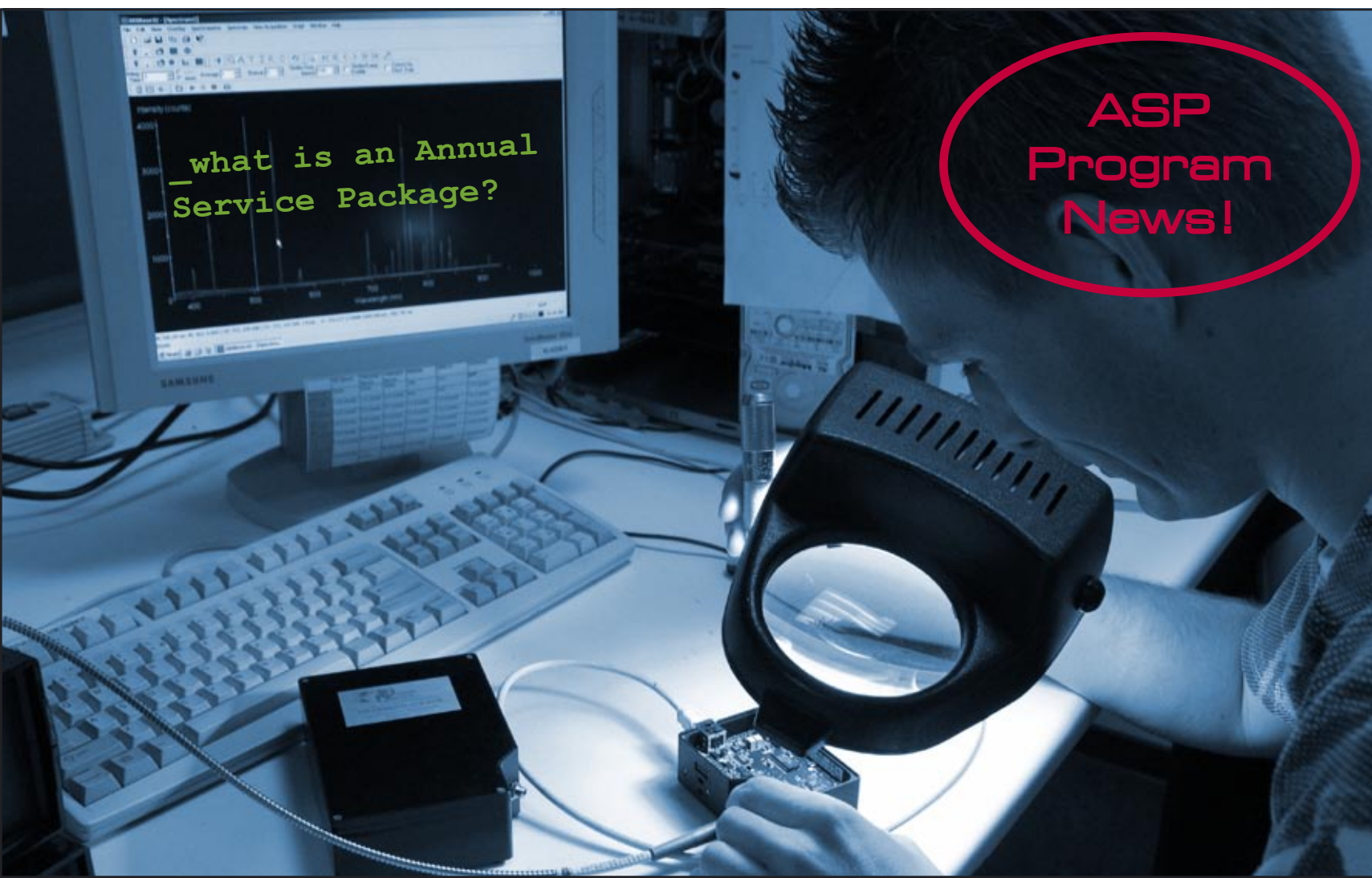
ASP	The standard ASP is available when you purchase a new Ocean Optics spectrometer. This program extends the spectrometer's warranty period to two years. The standard ASP is available for S2000, PC2000, USB2000, MC2000, and HR-series Spectrometers.	€220,-
ASP-ES	This program is available to customers whose one-year spectrometer warranty has expired, it will extend the warranty for another year.	€266,-
ASP-R-E	The ASP-R-E is a 2-year warranty renewal program for customers who have an ASP in place.	€ 310,-

Annual Factory Calibration & Certification

Users may return the spectrometer channel covered by the ASP to Ocean Optics anytime during the 1-year period commencing with the ASP invoice date for a one-time complete factory calibration and certification. The user should notify Ocean Optics of his or her intent prior to shipping the unit.

The Factory Calibration & Certification service includes:

- Re-focusing and alignment (if necessary)
- Wavelength calibration
- Linearity calibration
- Optical resolution evaluation
- Stray light measurement
- Baseline uniformity evaluation
- Noise analysis



[For more information click here.](#)

Monitoring Fast Reactions

The HR2000+ is ideal for chemical, biochemical and other applications where fast reactions such as protein dynamics need to be monitored. This innovative spectrometer allows you to capture and store one full spectral scan into memory every millisecond and achieve an optical resolution up to 0.035 nm (FWHM) when interfaced to a PC via the USB port (a serial port interface is also available).



€ 3.084,-

Data transfer time: 1 full scan every millisecond
Resolution: 0.035 nm (FWHM)
Spectral range: 200-1100 nm
Interfaces: USB 2.0 and RS-232

Miniature Spectrometer

With its small footprint design and plug-and-play convenience the USB2000 has become the most frequently specified miniature fiber optic spectrometer in the world. Our software recognizes and reads data programmed on the USB2000 -- such as calibration coefficients -- saving time and reducing configuration errors. The USB2000 connects to direct-attach accessories like light sources, cuvette and filter holders.



€ 1.938,-

Detector: 2048-element CCD array
Resolution: 0.3 - 10.0 nm (FWHM)
Spectral range: 200-1100 nm
Interfaces: USB 1.1 and RS-232

Near-Infrared up to 2500 nm

The NIR256 Spectrometer uses a 256-element InGaAs linear-array detector. The InGaAs detector has onboard thermoelectric cooling, which cools the detector to 30 °C below ambient. The spectral range is 900-2100 nm, and we also provide a 900-2500 nm system.



Detector: Hamamatsu G9206-256W
Spectral range: 900-2100 nm or 900-2500 nm
Integration time: 1 millisecond to 3 seconds
Signal-to-noise: 4000:1 single acquisition
Temperature limits: 30 °C below ambient with TE cooler

From € 17.629,-

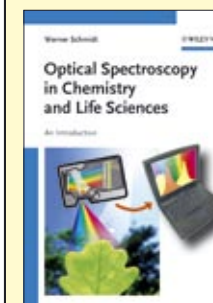
This small-footprint, plug-and-play NIR512 Spectrometer is perfect for applications that require sensitivity in the near-infrared region such as tunable laser wavelength characterization and general NIR spectroscopy. The spectral range is 900-1700 nm.



Detector: Hamamatsu G9024-512
Resolution: <5.0 nm
Spectral range: 900-1700 nm
Integration time: 1 millisecond to 3 seconds
Temperature limits: 30 °C below ambient with TE cooler

From € 13.218,-

Book review!



Author: Prof. Dr. Werner Schmidt,
University of Konstanz, Germany

“Optical Spectroscopy” covers all spectroscopic methods analyzing the light which is emitted from an object which is investigated. Many of these methods are extremely powerful and widely used, eg. because they do not require any destruction of the examined object. Many standard methods of Analytical Chemistry are based on optical spectroscopy. A lot of characteristics of chemicals are analysed by optical spectroscopy. Last but not least most of our knowledge about stars, galaxies and the universum is gained by observations using optical spectroscopy.

This book is a compact and simultaneously comprehensive introduction to the theory and practice of optical spectroscopy. The author skillfully leads the reader from the basics to practical applications.

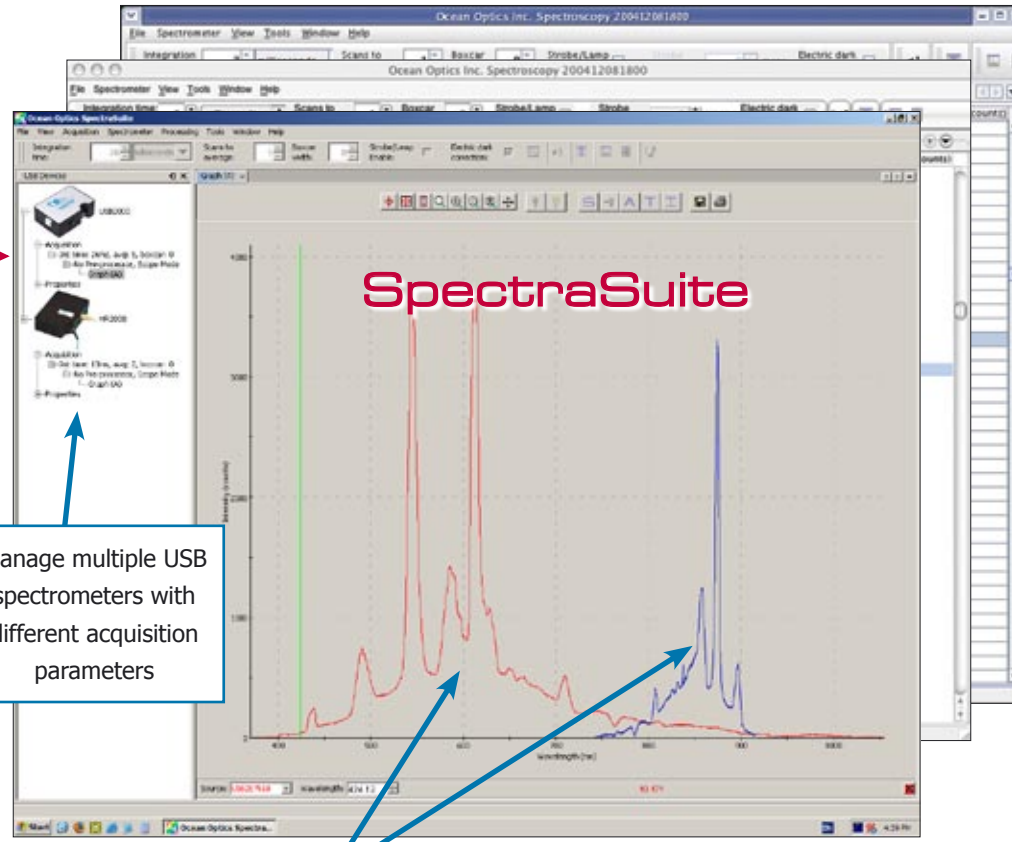
SPECIAL OFFER

As a special introduction we can offer the book for free for any order placed above € 5000,- (valid until 31-12-2005)

Or simply order the book at Ocean Optics for € 49,90

Call +31 26 319 05 00 or send an email to info@oceanopticsbv.com for easy ordering

A New Generation of Spectroscopy Software!



Linux
Macintosh
Windows

Upgrade to SpectraSuite Now!

Manage multiple USB spectrometers with different acquisition parameters

Multiple spectra from multiple devices in single or multiple windows

SpectraSuite

OOIBASE-32

The image shows a screenshot of the SpectraSuite software interface. It features a central window displaying a spectral plot with multiple traces in red and blue. The plot has a y-axis labeled 'Intensity (counts)' and an x-axis labeled 'Wavelength (nm)'. A large red arrow points from the 'OOIBASE-32' software window in the bottom left towards the main SpectraSuite window. A box on the left lists operating systems: Linux, Macintosh, and Windows. Another box points to the 'USB devices' list in the software, and a third box points to the spectral plot area.

For a full list of features click here.

SpectraSuite Compliant Spectrometers:

- USB2000 series
- HR2000
- HR4000
- HR2000 +
- QE65000
- NIR256
- NIR512

• Any other manufacturer's USB instrumentation (using the appropriate drivers)

(when interfaced to a PC using a USB port)

SpectraSuite Licence Information:

One SpectraSuite licence may be installed on one computer, more licencing options available at www.oceanoptics.com/Products/spectra-suite.asp.



Colofon

Ocean Optics B.V.

Geograaf 24

6921 EW Duiven

The Netherlands

Phone: +31 26 319 05 00

Fax: +31 26 319 05 05

E-mail: info@oceanopticsbv.com

Internet: www.oceanoptics.com

Limited Time Offer!

SpectraSuite is priced at € 189,-. For all of our customers who can provide a serial number for an Ocean Optics spectrometer with a USB interface that was purchased before September 1, 2005, SpectraSuite is available for € 89,- until January 1, 2006

ORDER NOW!