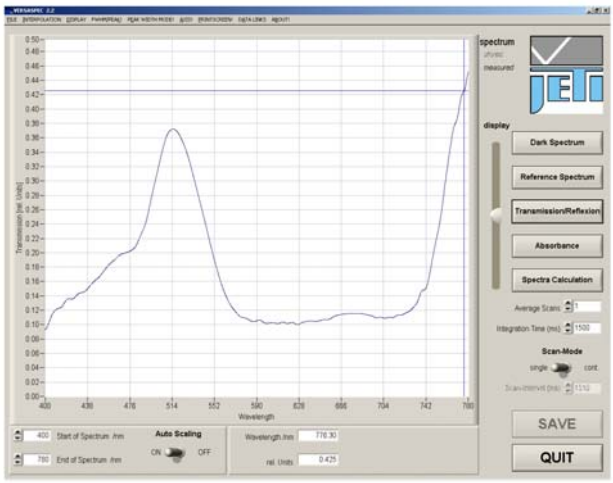
Spectrophotometer with Internal Light Source

specbos 2001

specbos 2001 is a fiber coupled VIS spectrophotometer which includes a small light source and a miniaturized spectrograph. The unit can be equipped with customer specific fiber probes for reflexion or transmission measure-ments. It has a USB (virtual COM port) interface that can be easily installed. The instrument needs no extra power supply.



Reflexion of gray plastics

specbos 2001 can be operated with an intuitive measuring software VersaSpec (for a demo version see www.jeti.com). It is suited for spectra acquisition and trans-mission/ reflexion, absorbance and first/ second derivation calculations. Single and continuous measurement modes, averaging and FWHM calculations are possible. The obtained data can be exported to Excel™ spread sheets and to Grams (SPC) or CSV files.

Furthermore it is possible to implement the instrument into individual applications using the virtual COM port directly by the following ways:

- DLL
- Virtual Instruments for LabView
- Serial commands

Advantages:

- Compact instrument with included light source
- Easy installation and operation
- USB powered
- Start of measurement with external trigger
- DLL and Virtual Instruments included

Input fibers (standard length 1 m) and collimating/ focusing optics are available. Send your specification to JETI.
specbos 2001 can be supplied with SMA or ST fiberoptic connector.

Specifications

Applications	Measurement of reflection and transmission spectra, e.g. of solid surfaces, filters and liquids
Optical parameters	
Spectral range	400 nm ... 780 nm
Optical input	100 µm fiber, NA 0.22
Input/ outputconnector	SMA (optional ST)
Optical bandwidth	9 nm (optional 5 nm) FWHM
Wavelengths resolution	1 nm
Digital resolution	16 bit ADC
Measuring ranges and accuracies	
Wavelength accuracy	± 0.7 nm (ASTM E275, filter BG 20, 2 mm, λ = 528.7 nm/ 684.3 nm)
Wavelength repeatability	± 0.2 nm (ASTM E275, filter BG 20, 2 mm, λ = 528.7nm/ 684.3 nm)
Photometric precision	± 0.002 AU (ASTM E275, D = 1, λ = 550 nm)
Photometric accuracy	± 0.005 AU (ASTM E275, D = 0.46, λ = 550 nm)
Photometric range	0 ... 2.6 AU (ASTM E275, ND filters, λ = 550 nm)
Stray light	< 10-3 (ASTM E387, GG495, 4 mm, λ = 420 nm/ 630 nm)
Sensitivity	typ. 1.3·1014 counts/Ws (550 nm)
Integration time	10 ... 60000 ms
Other technical data	
Light source	Krypton lamp with filter
Spectrometer	Imaging grating (flat field)
Light receiving element	Photodiode array 128 pixel (1024 pixel at increased resolution)
Power supply	USB powered
Interface	USB 2.0 fullspeed
Dimensions	145 mm x 58 mm x 34 mm
Weight 350 g	
Operating conditions	Temperature 10 ... 40 °C Humidity < 85 % relative humidity at 35 °C
Accessories (included)	PC software VersaSpec for Windows 2000/XP DLL, LabView VI's USB cable and trigger connector Operation manual Transport box

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