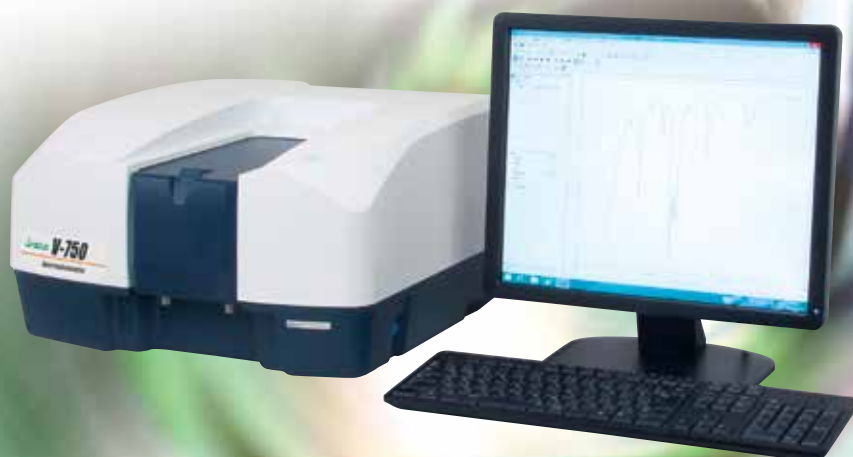




V-700 series

UV/ Vis / NIR Spectrophotometer



V-700 series

V-730 - Compact size, double beam type, wide dynamic range

V-750 - UV/VIS single monochromator, UV-Vis workhorse

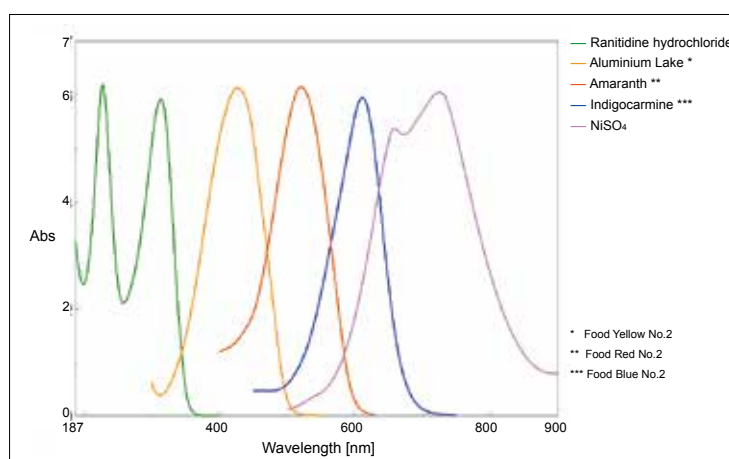
V-760 - UV/VIS double monochromator model for higher absorbance applications

V-770 - UV/VIS/NIR single monochromator model, extended spectral range

V-780 - High sensitivity NIR model

Highest throughput optics and widest dynamic range in its class

Optimized performance with high order cut-off filter, ultra-high resolution ADC, 24 bit, aberration-free offset for Sample, Reference and Dark Current, enhancement of dynamic range in NIR wavelength for V-770



V-730

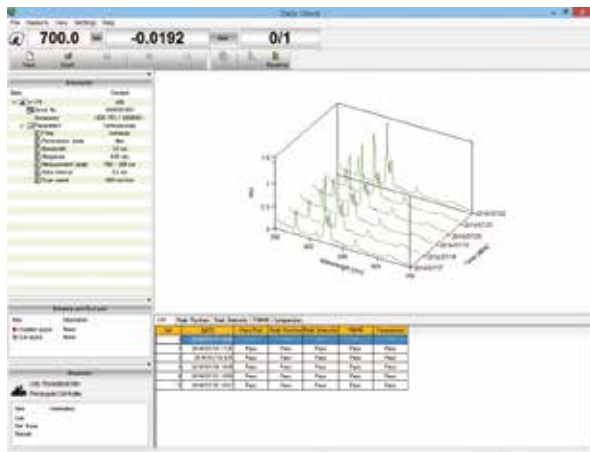


V-750

Wide performance range includes 5 different models to meet all laboratory analysis requirements

Daily maintenance program (standard)

Improved reliability for validation operations, Holmium glass filter (or other standard) can be automatically measured daily with automated data storage, Automatic execution of procedures supporting USP, EP or JP requirements



Maintenance display

Energy and space-saving

- Highest energy-saving in its class
- Turn off the unused light source with the ON/OFF source button in the measurement screen
- Save lamp life and electrical power
- All models have a compact frame design which requires minimal bench space

IQ accessories

IQ accessory is the automated recognizing function between accessory and main instrument.

IQ start is automated software program to boot related software when the accessory is mounted.

Spectra band width setting

In V-750, V-760, V-770 and V-780, there are 2 modes L and M. L mode is useful mode for measuring high absorbance sample and stray light reduction to one-third.

M mode is useful mode for measuring micro volume sample with using of micro cell.

Alignment-free lamp replacement

The W1 and D2 lamps can be re-installed in exactly the same position.

Position alignment after lamp replacement is not required, and, the instrument can be easily maintained by the user.

Dark Correction

0% transmittance dark correction is useful function to improve measurement accuracy for sample which is low transmittance.

Expand the system for a wide range of sample types and measurements

With over 70 sampling accessories and 30 optional programs.



V-760



V-770



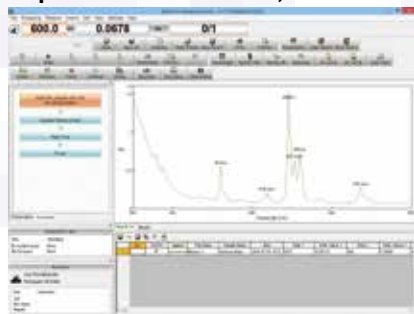
V-780

Spectra Manager II / Spectra Manager CFR

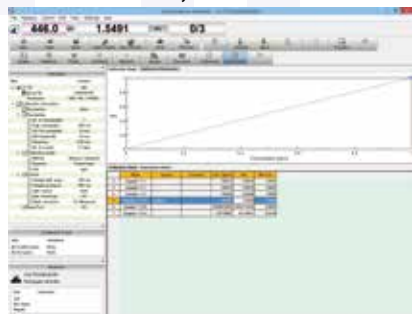
~The cross- platform spectroscopy software for all JASCO spectrophotometers~

Four Measurement modes:

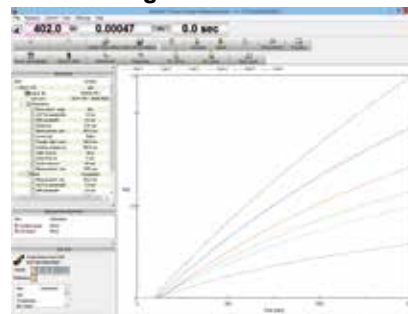
Spectra Measurement, Quantitative measurement, Time-course and Fixed wavelength measurement



• Spectra measurement



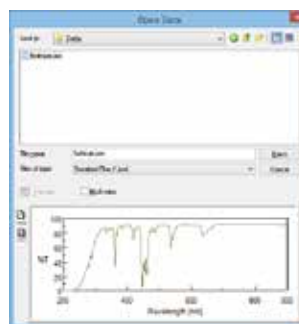
• Quantitative measurement



• Time-course measurement

Fully covered measurement capabilities

- Comprehensive display and analysis of performance indicators, accessory information, measurement parameters and measurement data
- For basic analysis such as peak picking, data smoothing, derivatives to complex application specific analysis such as enzyme activity calculation and film thickness are included as standard
- Convenient support functions: such as JASCO Canvas printing layout designer for custom reports, enhanced data searching with spectrum preview and many other flexible features
- Preset data processing, file saving and printing are automatically executed after measurement is complete.
- Parameters for data processing can be selected from the following Peak detection, Peak height/area (ratio), basic quantitation (User formula) and film-thickness calculation.
- Quantitative measurement and Fixed-wavelength measurement: arithmetic formulas can be input into the parameter settings.
- Quantitative measurement, Spectra Measurement, Quantitative Spectra and Fixed Wavelength measurement: The sample name and comments can be saved together in the measurement order as a sequence.



• Spectrum preview

Item	Content
Serial No.	A11181181
Accessory	USE-765 / A88881881
Parameters	
Photometric mode	Abc
UV-Vis bandwidth	10 nm
NIR bandwidth	30 nm
UV-Vis response	0.01 sec
NIR response	0.01 sec
Measurement range	510 - 680 nm
Data interval	10 nm
Scan speed	1000 nm/min
Connection	Cooling
Change light source at	260.0 nm
Change print at	260.0 nm
Light source	Auto
Filter exchange	Stop
No. of cycles	1 times
Baseline	Not compatible
UV-Vis bandwidth	30 nm
NIR bandwidth	30 nm
UV-Vis response	0.01 sec
NIR response	0.01 sec
Measurement range	510 - 680 nm
Data interval	10 nm
Scan speed	1000 nm/min
Change light source at	260.0 nm
Change print at	260.0 nm
Light source	Auto
Filter exchange	Stop
No. of accumulations	1 times

• Error protection

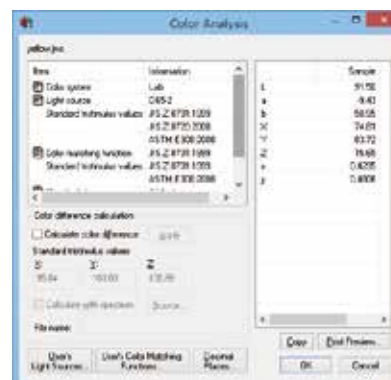
Analysis Function

- Film thickness or color diagnosis for measured spectra *Not available in Spectra Manager CFR
- Enzyme activity calculation can be applied to any time-course measurement
- JASCO Canvas printing layout designer as standard

FDA 21 CFR Part 11 Version option

Spectra Manager CFR offers full FDA 21 CFR Part 11 compliance and audit trail to guarantee the integrity of electronic records, electronic signatures and data.

**Some optional programs are not available in the Spectra Manager CFR version. Please contact us for more details.*



• Color calculation

New iRM

Comprehensive display of measurement data, accessory information and measurement parameters. Language can be chosen from English or Japanese, user selectable

Color LCD touch panel for intuitive operation

- High clarity Color LCD display makes display of complex data such as spectra or calibration curves easy to read.
- Touch sensitive screen for easy operation.

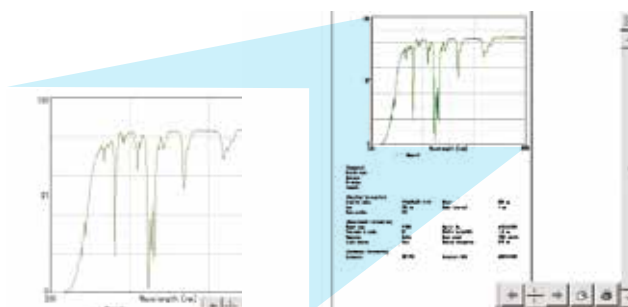
USB memory

- Portable, high capacity storage and direct data saving with USB memory stick.
- Data can be saved using the New iRM in text format for easy transfer to spreadsheet and other post processing software.



Extensive printing functions

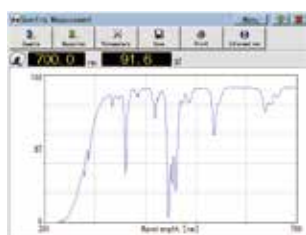
- An extensive range of print options can be used with the iRM from typical A4-size and letter size printers and thermal-paper printer for numerical output, to roll paper printer for numerical output and also thermal paper printer for printing of spectra and calibration curves.
- Using the print preview function, the overall view and zoomed view for the print out can be checked on the iRM screen prior to printing.



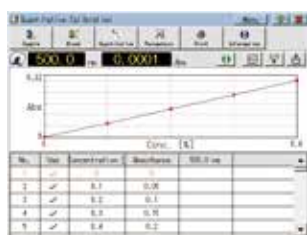
• Print preview of spectrum

• Print preview

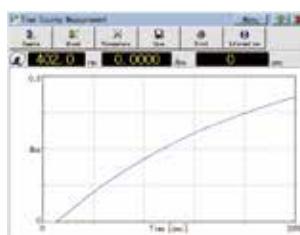
Four Measurement modes: Spectra Measurement, Quantitative measurement, Time-course and Fixed Wavelength measurement



• Spectra measurement



• Quantitative measurement



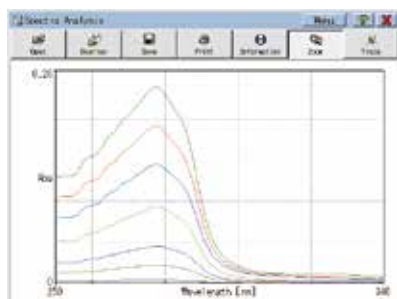
• Time-course measurement



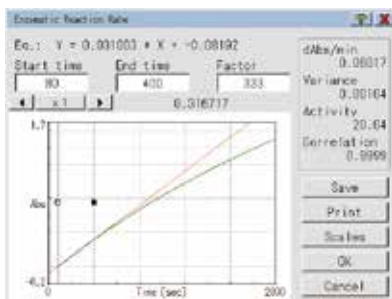
• Fixed wave length measurement

Data Analysis

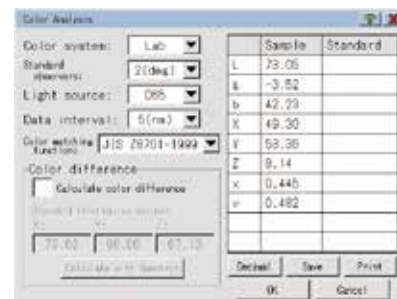
Peak detection, vertical/horizontal axis conversion, film thickness and color diagnosis are included in Spectra analysis as standard.



• Spectra analysis



• Enzymatic reaction rate calculation



• Color analysis

Analysis software for PC included as standard

Data acquired with the iRM can be analyzed using a PC with Spectra Analysis

Functions in Spectra Analysis such as peak detection, vertical/horizontal axis conversion to printing layout designer and data conversion to TEXT format.

V-730

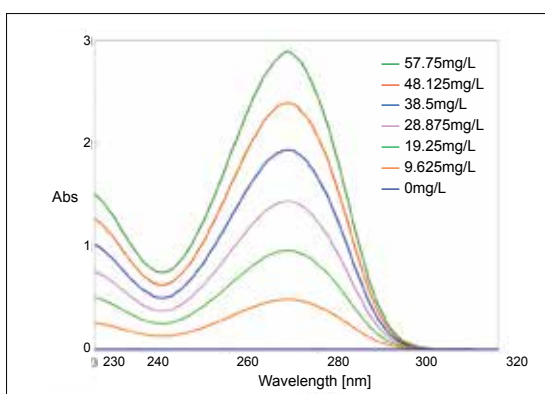
Compact size
Double beam type
Wide dynamic range



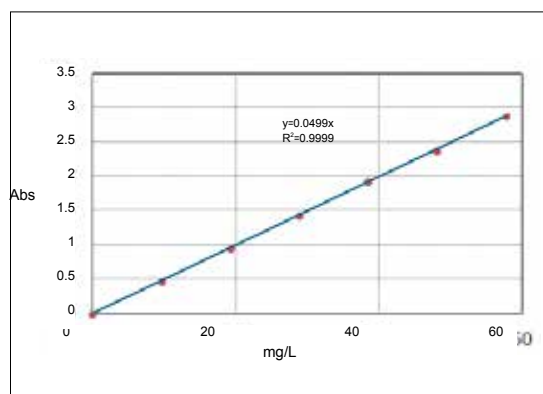
Dynamic range

Optimal balance between light intensity and resolution supporting European Pharmacopoeia (EP)

Faster response and slew speed Protein / DNA concentration measurement



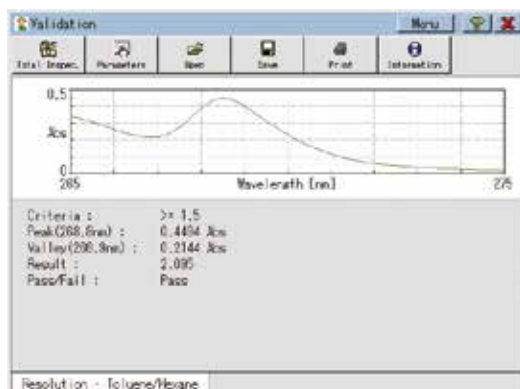
• Caffeine spectrum



• Calibration curve of Caffeine

Spectrum band width 1nm

In European Pharmacopoeia, the ratio of spectra between 269nm and 266 must be higher than 1.5. Our test result of Toluene/Hexane spectrum by using of V-730 can be passed in enough.



• iRM Validation result

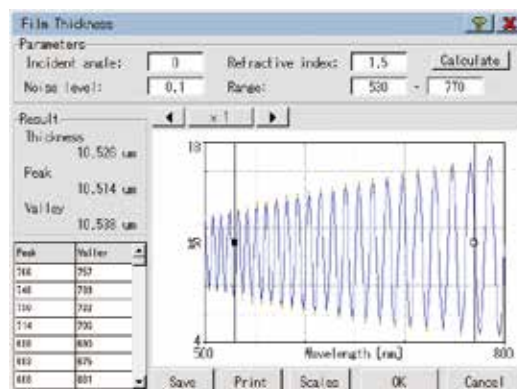
Film thickness measurement of food film

using the single reflection accessory

This is available for several measurements.

Film thickness measurement of food film using the SLM-907 single reflection unit was performed.

The V-730 has a wide range of special accessories and optional programs for a broad range of analyses.



• Film thickness calculation of film sample

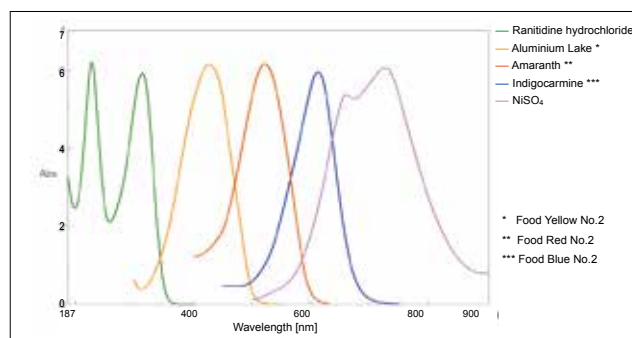
V-750

Wide dynamic range in its class
Various accessories combination



Absorbance linearity to 4 AU is achieved in a wide wavelength range

Photometric range up to 4AU is available in a wide range from the UV to Visible regions. The V-700 series offers measurement with a wide dynamic range up to high-absorbance by employing an optimized high-order cut-off filter, the adoption of a 24 bit ultra high-resolution A/D converter and simplified signal processing prior to the A/D conversion.



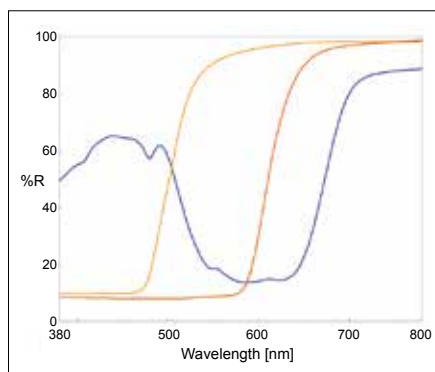
• Spectra of each solutions

Color assessment by diffuse reflection measurement of compacted powder

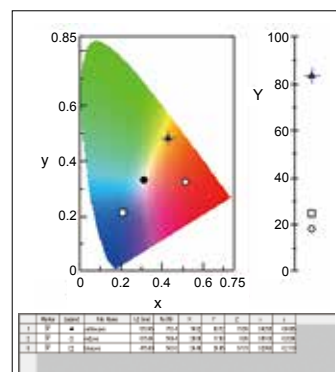
Diffuse reflection measurement using the ISV-922 Integrating sphere unit was performed.

The following graphic displays the plot of XY chromaticity diagram within the color diagnostic program of XXXX type.

The integrating sphere is equipped with a light trap for removing the specular component. In case of the dark color measurement, the dark correction function is used.

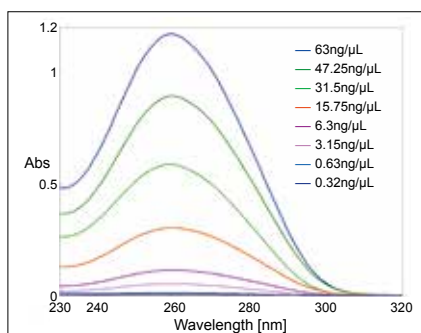


• Reflection spectrum of powder sample

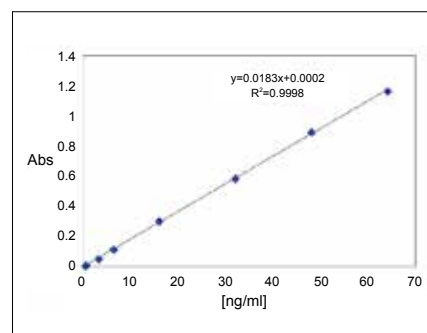


• Plot view of color diagnosis

Micro cell measurement with an optical path of 2mm using the M-mode bandwidth setting of is available. It is useful for measurement of micro liquid samples.



• Spectrum of DNA solution



• Calibration curve of DNA solution

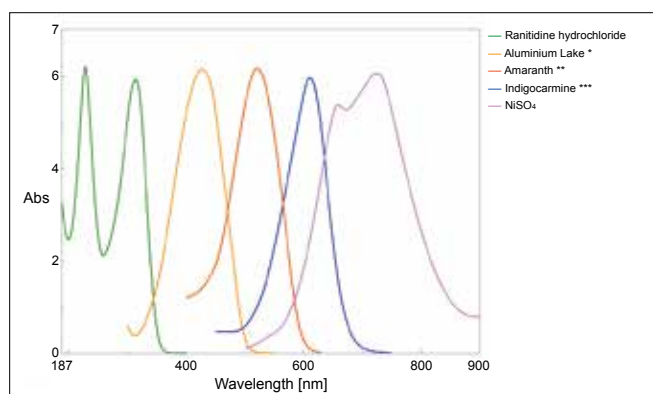
V-760

Double monochromator for spectral measurement with reduced stray light

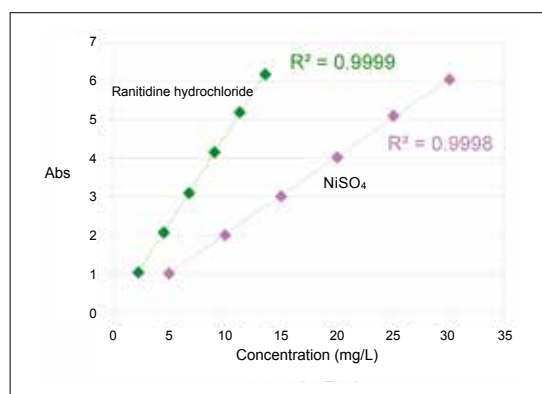


Double Monochromator offers photometric linearity in a wide wavelength range up to 6AU simulation of stray light and calibration curve

Light other than the wavelength of interest reaching a detector is referred to as stray light. As the stray light increases, the absorbance linearity will deteriorate. The new V-700 series designed with an optical system for lower stray light offers a high absorbance linearity across the entire photometric range. The V-760 can measure up to 6AU across the wavelength range from the UV to visible regions.



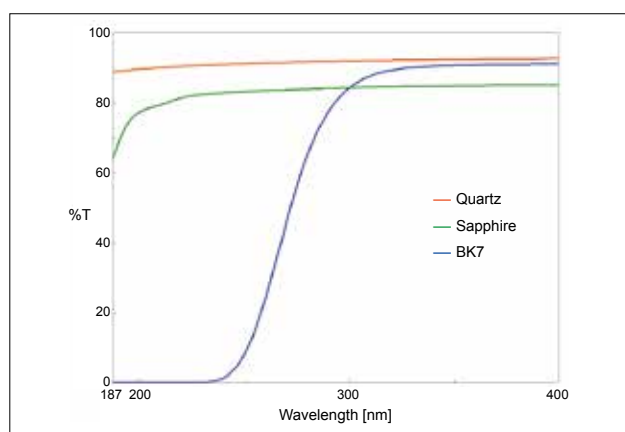
• Spectra of each solutions



• Calibration curve of Ranitidine hydrochloride and NiSO₄

Measurement down to 187 nm

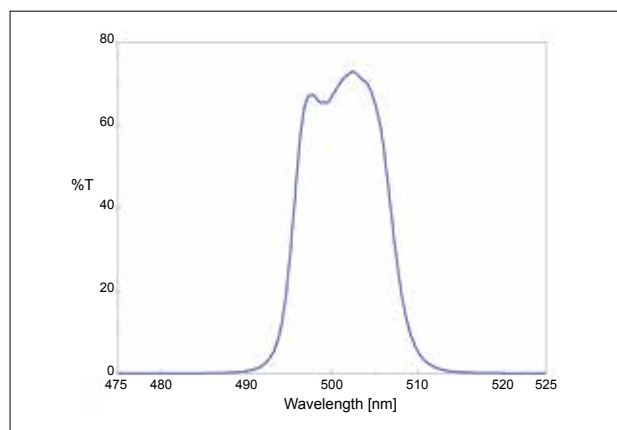
The lower stray light optical design enables measurement in the UV from 187 nm without an N₂ purge. Quartz, sapphire and BK-7 are optical materials often used as window materials. The transmittance spectra of these three materials obtained using the FLH-741 film holder are shown above.



• Transmittance spectrum of optical materials

Stepscan measurement of optical element sample

The Stepscan is very useful tool to measure kind of samples as bandpass filter which absorbance and transmittance can be changed dramatically.



• Transmittance spectrum of band path filter

V-770

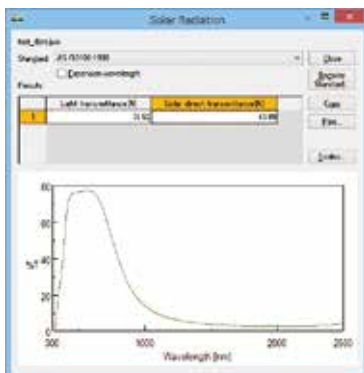
Wide range from 190 to 3200nm

* The range from 2700-3200nm requires the wavelength expansion kit (Option)
High efficiency and bright optics achieved using a single grating type monochromator with one grating each for the visible and NIR measurements with sampling accessories can be performed with high accuracy



Measurement of thermal insulation glass

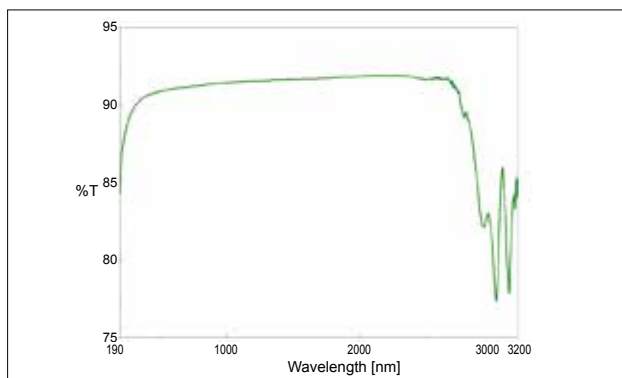
In JIS R 3106 regulation, the evaluation method of thermal insulation glass is defined with measurement of its transmittance, reflection index and emissivity. it is possible to measure it with integrating sphere and automated absolute reflection accessory and necessary values as transmittance or reflective index can be calculated with VWST-7734.



• Transmission Spectrum of thermal insulation glass

Wavelength expansion

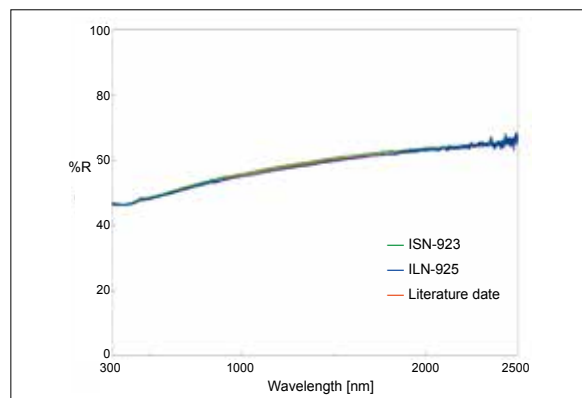
Optional wavelength expansion kit can expand the measurement wavelength range from 2700 to 3200 nm. Transmittance spectrum of quartz up to 3200 nm for the water peak.



• Transmittance spectrum of crystal sample

Accurate diffuse reflectance measurement with Integrating sphere

The figure below is the measurement results of a diffuse gray standard SRS-50-010 measured using the ISN-723 60 mm integrating sphere and ILN-725 150mm integrating sphere. The gray standard was evaluated against a Spectralon reference plate. The values and measurement spectra demonstrate excellent agreement.



• Reflection spectrum of standard sample

Multivariate analysis

Multivariate analysis is widely used for analysis of samples which absorbance band of each element can't be separated. There are, PCR / PLS / CLS quantitative measurement, and PCA program

V-780

High sensitivity and high resolution spectrophotometer using a high sensitivity InGaAs photodiode detector for the NIR region

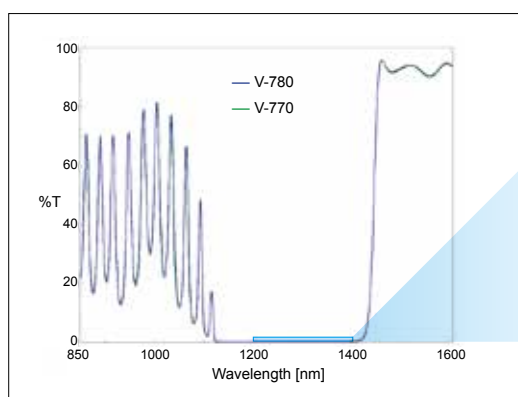
Light source luminance control by digital feedback enables NIR spectra measurement with high sensitivity and high accuracy even when the absorbance fluctuates.

A new sealed lamp housing developed by simulating the heat flow suppresses the fluctuation caused by heat from the lamp and enhances measurement stability

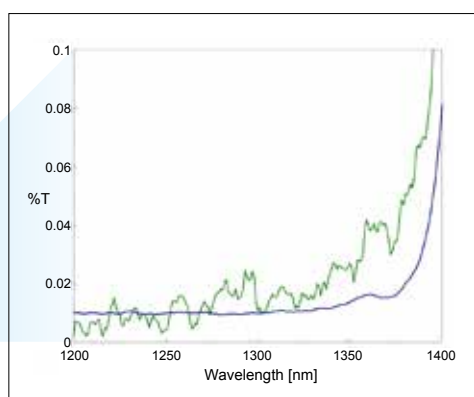


High sensitivity measurement in the NIR region

The below figures are the comparison of a 1.3 μm band cut-off filter for optical communication measured using the V-770 with cooled PbS photoconductive element detector and the V-780 with cooled InGaAs Photodiode detector. The InGaAs detector offers measurements with much higher S/N than can be achieved using the PbS detector.



• Spectrum of 1.3 μm cut filter sample

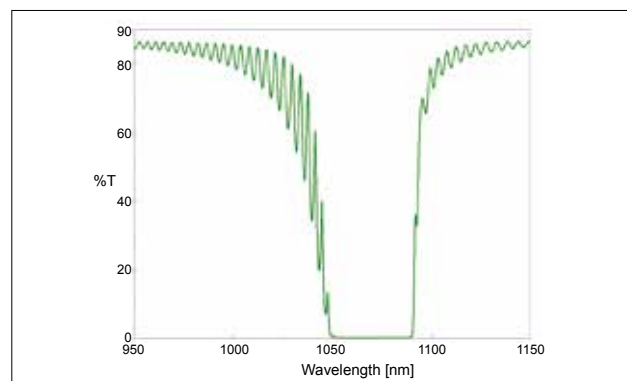


• Zoomed view

High resolution measurement in the NIR region

The InGaAs photodiode as a detector for the NIR range provides a higher resolution measurement in the NIR region.

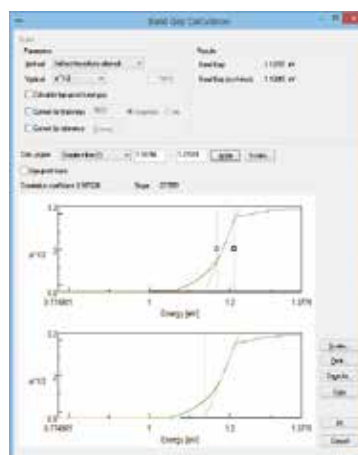
The figure above is the vibrational spectrum of CO₂ gas (pathlength: 100 mm) in the NIR measured using the V-780. Overtones are seen near 1430 nm and also combination tones near 1770 nm. Zooming into the spectrum at around 1437 nm shows that the V-780 offers sufficient resolution to see the rotational level in the vibrational spectra.



• Transmittance spectrum of notch filter

Band-gap measurement of Si

Crystalline Si was measured in transmittance mode and the band-gap was calculated to be 1.13 eV which is in good agreement with data found in the literature. This demonstrates that the V-780 is an excellent tool for the evaluation of Solar panel materials.



• Band-gap calculation

Accessories

One drop Accessory SAH-769

Micro volume sample application for Protein and DNA measurement

<Specification>

Minimum volume :
0.6μL (0.2 mm path length)
5μL (1.0 mm path length)



Micro cell holder EMC-709

Both 50μL and 5μL micro cell can be used.

<Specification>

Minimum volume : 5μL
Selectable cells :
50μL micro cell (10mm ath length)
5μL micro cell (1mm ath length)



Peristaltic Sipper NPF-782

Sample recycling sipper.
It can combined with autosampler as automated analytical system

<Specification>

Path Length: 10mm
Carry over: Less 1%
Minimum volume:
0.7mL (In low viscosity sample)
Wavelength range:
220 - 900nm (V-730, 750, 760)
220 - 2200nm (V-770)
220 - 1600nm (V-780)



Integrating sphere ISV-922/ISN-923/ISN-901i

Integrating spheres are designed to measure either the diffuse transmittance or diffuse reflectance of a sample. These accessories are provided with a light trap so that the reflectance of samples can be measured with or without the specular reflectance component.

<Specification>

Inside dia. of Integrating Sphere: 60mmφ
Incident Angle to reflection surface: 0°, approx. 5°
Min. sample size (reflection):
20(H)×20(W)×0.5(t)mm
Max. sample size (reflection):
65(H)×50(W)×25(t)mm
Wavelength range:
200 - 870nm (V-730, 750, 760)
200 - 2500nm (V-770)
200 - 1600nm (V-780)

for V-750/760/770/780



ISV-922

150mm Integrating sphere ILV-924/ILN-925/ILN-902i

These accessories employ a 150mm dia. integrating sphere to accept larger samples.

<Specification>

Inside dia. of Integrating Sphere: 150mmφ
Incident Angle to reflection surface: approx. 5°
Min. sample size (reflection):
20(H)×20(W)×0.5(t)mm
Max. sample size (reflection):
100(H)×50(W)×30(t)mm
Wavelength range:
220 - 850nm (V-750, 760)
220 - 2200nm (V-770)
220 - 1600nm (V-780)

for V-750/760/770/780



ILV-924

Air-cooled Peltier cell holder EHCS-760

Air-cooled type, it does not need water circulation.

<Specification>

Optical length: 10mm
Temp. control accuracy: ±0.1°C
Temp. control range: 10 - 60 °C (at 25°C)
Heating radiating system: Air-cooled
Temp. setting range: 5 - 70 °C
Stirrer system:
Integrated variable speed magnetic stirrer
(not available for micro cell)
Temp. accuracy:
±0.5 °C (20 - 40 °C)
±1 °C (other temp. range)



Water-circulation Peltier cell holder ETCS-761 ETCR-762 (Thermostatted reference)

ETCS-761 and ETCR-762 are provided with water-cooled system to control a wide temperature range (0 - 100°C).

<Specification>

Path length: 10mm
Temp. control accuracy: ±0.1°C
Temp. control range: 0 - 100 °C
(for cooling water temperature at 20°C)
Heating radiating system: Water-cooled
(requires water circulator)
Temp. setting range: -10 - 110 °C
Stirrer system:
Integrated variable speed magnetic stirrer
(not available for micro cell)
Temp. accuracy:
±0.5 °C (20 - 40 °C)
±1 °C (other temp. range)



Water-circulation Peltier cell changer PAC-743 PAC-743R (Thermostatted reference)

The PAC-743/743R allow measurements of the transmittance/absorbance of multiple samples by using dedicated cell blocks with temperature control.

<Specification>

Temp. control accuracy: ±0.1°C
Temp. control range: 0 - 100 °C
(for cooling water temperature at 20°C)
Heating radiating system: Water-cooled
(requires water circulator)
Temp. setting range: -10 - 110 °C
Stirrer system:
Integrated variable speed magnetic stirrer
(not available for micro cell)
Temp. accuracy:
±0.5 °C (20 - 40 °C)
±1 °C (other temp. range)
Dedicated cell block (Option):
6-position cell block, 8-position cell block
1mm 8-position micro cell block
8-position micro cell block



Automated absolute reflection measurement ARMV-919/ARMN-920/ARMN-921i

Since the angles of the sample stage and the detector can be changed independently, the absolute reflectance and transmittance of a sample can be measured with varied angles of incidence.

<Specification>

Inside dia. of Integrating Sphere: 60mmφ
Incident angle:
5-60° (Absolute reflectance mode)
0-60° (Transmittance mode)
Angle setting: 0.1° step
Sample size (Absolute reflectance mode):
Min: 20(H)×20(W)×1(t)mm
Max: 70(H)×70(W)×10(t)mm
Polarizer: Standard

for V-750/760/770/780



ARMV-919

Specifications			
	V-730	V-750	V-760
Optical system	Rowland off-circle arrangement Single monochromator Double beam type	Czerny-Turner mount Single monochromator Fully symmetrical double beam type	Czerny-Turner mount Double monochromator Fully symmetrical double beam type
Light source	Halogen lamp, Deuterium lamp	Halogen lamp, Deuterium lamp	Halogen lamp, Deuterium lamp
Wavelength range	190 to 900 nm	190 to 900 nm	187 to 900 nm
Wavelength accuracy	+/-0.2 nm (at 656.1 nm)	+/-0.2 nm (at 656.1 nm)	+/-0.1 nm (at 656.1 nm)
Wavelength repeatability	+/-0.1 nm	+/-0.05 nm	+/-0.05 nm
Spectral bandwidth (SBW)	1 nm	0.1, 0.2, 0.5, 1, 2, 5, 10 nm L2, L5, L10 nm (low stray light mode) M1, M2 nm (micro cell mode)	0.1, 0.2, 0.5, 1, 5, 2, 10 nm L2, L5, L10 nm (low stray light mode) M1, M2 nm (micro cell mode)
Stray light	1 % (198 nm KCL 12 g/L aqueous solution) 0.02 % (220 nm NaI 10 g/L aqueous solution) 0.02 % (340 nm NaNO2 50 g/L aqueous solution) 0.02 % (370 nm NaNO2 50 g/L aqueous solution) SBW: 1 nm	1 % (198 nm KCL 12 g/L aqueous solution) 0.005 % (220 nm NaI 10 g/L aqueous solution) 0.005 % (340 nm NaNO2 50 g/L aqueous solution) 0.005 % (370 nm NaNO2 50 g/L aqueous solution) SBW: L2 nm	1 % (198 nm KCL 12 g/L aqueous solution) 0.00008 % (220 nm NaI 10 g/L aqueous solution) 0.00008 % (340 nm NaNO2 50 g/L aqueous solution) 0.00008 % (370 nm NaNO2 50 g/L aqueous solution) SBW: L2 nm
Photometric range	-3~3 Abs	-4~4 Abs	-4~6 Abs
Photometric accuracy	+/-0.0015 Abs (0 to 0.5 Abs) +/-0.0025 Abs (0.5 to 1 Abs) +/-0.3 % T Tested with NIST SRM 930D	+/-0.0015 Abs (0 to 0.5 Abs) +/-0.0025 Abs (0.5 to 1 Abs) +/-0.3 % T Tested with NIST SRM 930D	+/-0.0015 Abs (0 to 0.5 Abs) +/-0.0025 Abs (0.5 to 1 Abs) +/-0.3 % T Tested with NIST SRM 930D
Photometric repeatability	+/-0.0005 Abs (0 to 0.5 Abs) +/-0.0005 Abs (0.5 to 1 Abs) Tested with NIST SRM 930D	+/-0.0005 Abs (0 to 0.5 Abs) +/-0.0005 Abs (0.5 to 1 Abs) Tested with NIST SRM 930D	+/-0.0005 Abs (0 to 0.5 Abs) +/-0.0005 Abs (0.5 to 1 Abs) Tested with NIST SRM 930D
Scanning speed	10-8000 nm/min	10-4000 nm/min (8000 nm/min in preview mode)	10-4000 nm/min (8000 nm/min in preview mode)
Slew speed	24,000 nm/min	12,000 nm/min	12,000 nm/min
RMS noise	0.00004 Abs (0 Abs, wavelength: 500 nm, measurement time: 60 sec, SBW: 1 nm)	0.00003 Abs (0 Abs, wavelength: 500 nm, measurement time: 60 sec, SBW: 2 nm)	0.00003 Abs (0 Abs, wavelength: 500 nm, measurement time: 60 sec, SBW: 2 nm)
Baseline stability	0.0004 Abs/hour (Value obtained more than one hour after turning on the source, when the room temperature is stabilized, wavelength: 250 nm, response: slow)	0.0003 Abs/hour (Value obtained more than two hours after turning on the source, when the room temperature is stabilized, wavelength: 250 nm, response: slow and SBW: 2 nm)	0.0003 Abs/hour (Value obtained more than two hours after turning on the source, when the room temperature is stabilized, wavelength: 250 nm, response: slow and SBW: 2 nm)
Baseline flatness	+/-0.0005 Abs (200 - 1000 nm)	+/-0.0002 Abs (200 - 850 nm)	+/-0.0003 Abs (200 - 800 nm)
Detector	Silicon photodiode	Photomultiplier tube	Photomultiplier tube
Standard facilities	IQ accessories, Start button, Analog output	IQ accessories, Start button, Analog output	IQ accessories, Start button, Analog output
Standard program	Abs/%T meter, Quantitative analysis, Spectrum measurement, Time course measurement	Fixed wavelength measurement, Validation, Daily maintenance, Macro command	Two wavelengths time course measurement (only for PC)
Dimensions and weight	486(W)x441(D)x216(H) mm, 15 kg	460(W)x602(D)x268(H) mm, 27 kg	460(W)x602(D)x268(H) mm, 29 kg
Power requirements	120 VA	150 VA	150 VA
Installation requirements	Room temperature: 15-30 Celsius, humidity: below 85%	Room temperature: 15-30 Celsius, humidity: below 85%	Room temperature: 15-30 Celsius, humidity: below 85%
	V-770	V-780	
Optical system	Czerny-Turner mount Single monochromator Fully symmetrical double beam type	Czerny-Turner mount Single monochromator Fully symmetrical double beam type	
Light source	Halogen lamp, Deuterium lamp	Halogen lamp, Deuterium lamp	
Wavelength range	190 to 2700 nm (3200 nm, option)	190 to 1600 nm	
Wavelength accuracy	+/-0.3 nm (at 656.1 nm) +/-1.5 nm (at 1312.2 nm)	+/-0.3 nm (at 656.1 nm) +/-1.0 nm (at 1312.2 nm)	
Wavelength repeatability	+/-0.05 nm (UV-Vis), +/-0.2 nm (NIR)	+/-0.05 nm (UV-Vis), +/-0.1 nm (NIR)	
Spectral bandwidth (SBW)	UV-Vis: 0.1, 0.2, 0.5, 1, 2, 5, 10 nm L2, L5, L10 nm (low stray light mode) M1, M2 nm (micro cell mode) NIR: 0.4, 0.8, 1, 2, 4, 8, 20, 40 L8, L20, L40 nm (low stray light mode) M4, M8 nm (micro cell mode)	UV-Vis: 0.1, 0.2, 0.5, 1, 2, 5, 10 nm L2, L5, L10 nm (low stray light mode) M1, M2 nm (micro cell mode) NIR: 0.2, 0.4, 0.5, 1, 2, 4, 10, 20, L4, L10, L20 nm (low stray light mode) M2, M4 nm (micro cell mode)	
Stray light	1 % (198 nm KCL 12 g/L aqueous solution) 0.005 % (220 nm NaI 10 g/L aqueous solution) 0.005 % (340 nm NaNO2 50 g/L aqueous solution) 0.005 % (370 nm NaNO2 50 g/L aqueous solution) SBW: L2 nm 0.04 % (1420 nm: H2O) 0.1 % (1690 nm: CH2Br2 50 mm cell) SBW: L8 nm	1 % (198 nm KCL 12 g/L aqueous solution) 0.005 % (220 nm NaI 10 g/L aqueous solution) 0.005 % (340 nm NaNO2 50 g/L aqueous solution) 0.005 % (370 nm NaNO2 50 g/L aqueous solution) SBW: L2nm 0.04 % (1420 nm: H2O) SBW: L4 nm	
Photometric range	UV-Vis: -4~4 Abs NIR: -3~3 Abs	UV-Vis: -4~4 Abs NIR: -3~3 Abs	
Photometric accuracy	+/-0.0015 Abs (0 to 0.5 Abs) +/-0.0025 Abs (0.5 to 1 Abs) +/-0.3 % T Tested with NIST SRM 930D	+/-0.0015 Abs (0 to 0.5 Abs) +/-0.0025 Abs (0.5 to 1 Abs) +/-0.3 % T Tested with NIST SRM 930D	
Photometric repeatability	+/-0.0005 Abs (0 to 0.5 Abs) +/-0.0005 Abs (0.5 to 1 Abs) Tested with NIST SRM 930D	+/-0.0005 Abs (0 to 0.5 Abs) +/-0.0005 Abs (0.5 to 1 Abs) Tested with NIST SRM 930D	
Scanning speed	10~4000 nm/min (8000 nm/min in preview mode)	10~4000nm/min (8000nm/min in preview mode)	
Slew speed	UV-Vis: 12,000 nm/min NIR: 48,000 nm/min	UV-Vis: 12000 nm/min NIR: 24000 nm/min	
RMS noise	0.00003 Abs (0 Abs, wavelength: 500 nm, measurement time: 60 sec, SBW :2 nm)	0.00003 Abs (0 Abs, wavelength: 500 nm, measurement time: 60 sec, SBW:2 nm)	
Baseline stability	0.0003 Abs/hour (Value obtained more than two hours after turning on the source, when the room temperature is stabilized, wavelength: 250 nm, response: slow and SBW: 2 nm)	(Value obtained more than two hours after turning on the light source, when the room temperature is stabilized, wavelength: 250 nm, response: slow and SBW: 2nm.)	
Baseline flatness	+/-0.0002 Abs (200 - 2500 nm)	+/-0.0002 Abs (200 - 1600 nm)	
Detector	Photomultiplier tube, Peltier cooled PbS	Photomultiplier tube, Peltier cooled InGaAs photodiode	
Standard facilities	IQ accessories, Start button, Analog output	IQ accessories, Start button, Analog output	
Standard program	Abs/%T meter, Quantitative analysis, Spectrum measurement, Time course measurement (only for IRM), Two wavelengths time course measurement (only for PC)	Fixed wavelength measurement, Validation, Daily maintenance, Macro command	
Dimensions and weight	460(W)x602(D)x268(H) mm, 29 kg	460(W)x602(D)x268(H) mm, 29 kg	
Power requirements	150 VA	150 VA	
Installation requirements	Room temperature: 15-30 Celsius, humidity: below 85%	Room temperature: 15-30 Celsius, humidity: below 85%	



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For more information, please contact :



Products described herein are designed and manufactured by ISO-certified JASCO Corporation.

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