

# **Optical materials evaluation system**

# V-700 series UV/Vis/NIR spectrophotometer

JASCO can offer the automated absolute reflectance measurement system for V-700 series, which is the automated variable-angle measurement system for evaluating the spectral characteristics of optical materials. Various measurement programs enable to evaluate the absolute reflectance spectra, the angle variation data and the phase difference spectra.

#### Features

• Absolute reflectance measurement available by changing the incident angle.

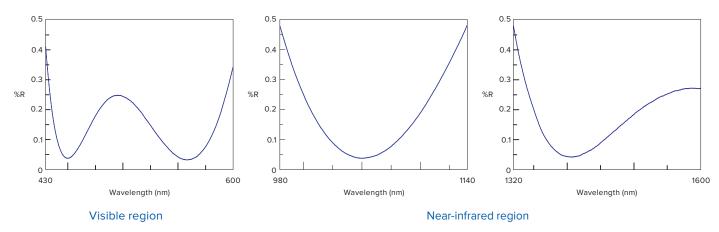
- Wide wavelength range from UV to NIR
- Independent control of incident angle and detection angle
- Polarization measurement as standard

• Various measurements available such as spectrum measurement, angle variation data, and phase difference spectra measurement



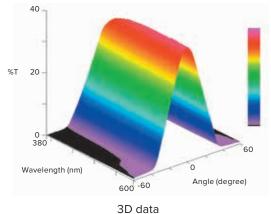
### ■ Low reflectance measurement of antireflection film (less than 0.1%R)

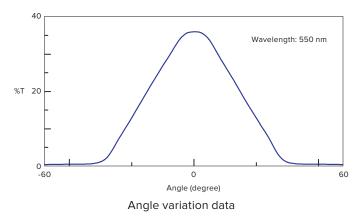
The following data shows the absolute reflectance spectrum of antireflection film (AR coat) in the wavelength range from visible to near infrared. As shown in the figures, low reflectance measurement, less than 0.1%, was fully performed over the wide wavelength range.



#### Measurement of a privacy film

The transmittance spectra of the privacy film for a smartphone was explored. The incident angle has varied continuously from  $-60^{\circ}$  to  $60^{\circ}$ .

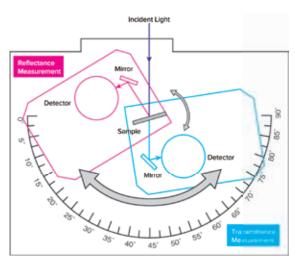




#### Absolute reflectance measurement unit

By moving integrating sphere, the measurement can be performed with the change of the incident angle.





Inside of automated absolute reflectance measurement unit (photo, structural drawing)

#### Specifications

#### UV/Vis/NIR spectrophotometer

| Model             | V-750        | V-760        | V-770                                   | V-780                                   |
|-------------------|--------------|--------------|---|---|
| Wavelength range  | 190 - 900 nm | 187 - 900 nm | 190 - 2700 nm<br>(3200 nm, option)      | 190 - 1600 nm                           |
| Photometric range | -4 - 4 Abs   | -4 - 6 Abs   | -4 - 4 Abs (UV/Vis)<br>-3 - 3 Abs (NIR) | -4 - 4 Abs (UV/Vis)<br>-3 - 3 Abs (NIR) |

#### Automated absolute reflectance measurement unit

| Model              | ARMV-919  | ARMN-920      | ARMN-921i     |  |  |
|--------------------|---|---------------|---------------|--|--|
| Wavelength range   | 250 - 850 nm  | 250 - 2000 nm | 250 - 1600 nm |  |  |
| Integrating sphere | Dia. 60 mm  |               |               |  |  |
|                    | 5° - 60° (absolute reflectance measurement)           |               |               |  |  |
| Incident angle     | 0° - 60° (transmittance measurement)                  |               |               |  |  |
|                    | vertical incidence (relative reflectance measurement) |               |               |  |  |
| Angle setting      | 0.1°  |               |               |  |  |
| Polarizer          | Standard  |               |               |  |  |

ARMV is for V-750/760, ARMN is for V-770, and ARMN-921i is for V-780.

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