

## 【紫外光/可見光/近紅外光光譜儀】

本實驗室採用 Hitachi 公司製造之 U-4100 紫外光/可見光/近紅外光光譜儀，量測試體的穿透率和反射率。U-4100 光譜儀以鹵素燈及 D2 燈為光源，選定特定波段後，並以白板做為背景，對樣品進行照射。經由分光器的作用，讓不同的波長與樣品，呈現不同的穿透/反射/吸收。再由偵測器接收訊號，傳到電腦進行分析處理。量測範圍涵蓋 200~2600 nm，適用於各種分析需求，例如：半導體、光學元件、奈米材料等。本儀器結合積分球，使進入球體之光源均勻分散，並增加其穩定度，可準確地測量物件的穿透率和反射率。此設備目前主要應用於玻璃光學性能之檢測，依據規範為 ISO 9050、ISO 10292、JIS R3106、JIS R3107、CNS 12381。

## 【UV/Visible/NIR Spectrophotometer】

U-4100 is an UV/Visible/NIR spectrometer produced by Hitachi. The light source uses a halogen lamp (visible range) and a D2 lamp (ultraviolet range) that switches to the selected wavelength range depending on the measurement. Taking the standard white plate for a background, and irradiating the sample plate. The different wavelength and sample will display different transmittance, reflectance and absorption by means of the effect of the spectrometer. Then, the signal will be collected by detector, analyzed and processed by computer. The measuring range is from 200nm to 2600nm which is available for a wide range in variant analyzing requirement, such as semiconductors, optical elements and nanoscale materials. The UV/Visible/NIR spectrometer combined with an integrating sphere is used to cause a light beam (measurement light) entering the sphere with uniform dispersing and enhance the stability. The accuracy of measurements can be improved. According to ISO 9050, ISO 10292, JIS R3106, JIS R3107 and CNS 12381, the UV/Visible/NIR spectrometer also can be used to measure the optical properties of glass.



紫外光/可見光/近紅外光光譜儀(UV/Visible/NIR Spectrophotometer)