

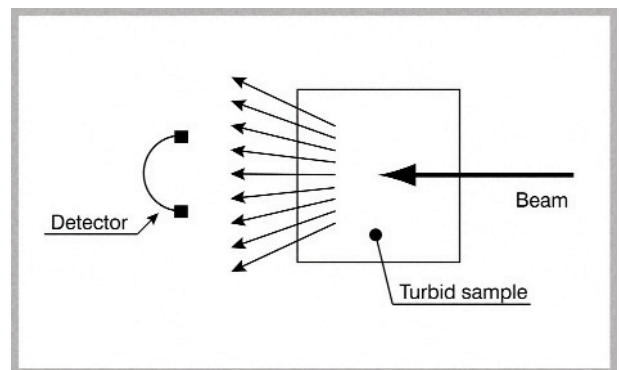
## Integrating Sphere for Uvikon XL

Accessory for scattered or reflected light measurement of liquid or solid samples using UV/VIS spectrophotometers.



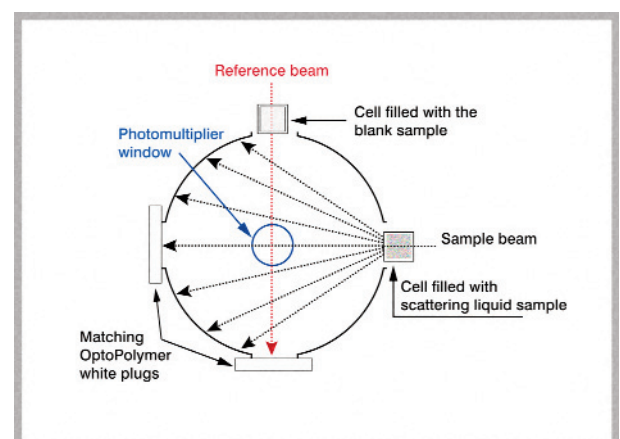
Samples which scatter light cannot be measured using a conventional spectrophotometer because the detector measures only that part of the light which passes straight through the sample. Diffuse emitted light resulting from light scattering cannot be detected without using an Integrating Sphere.

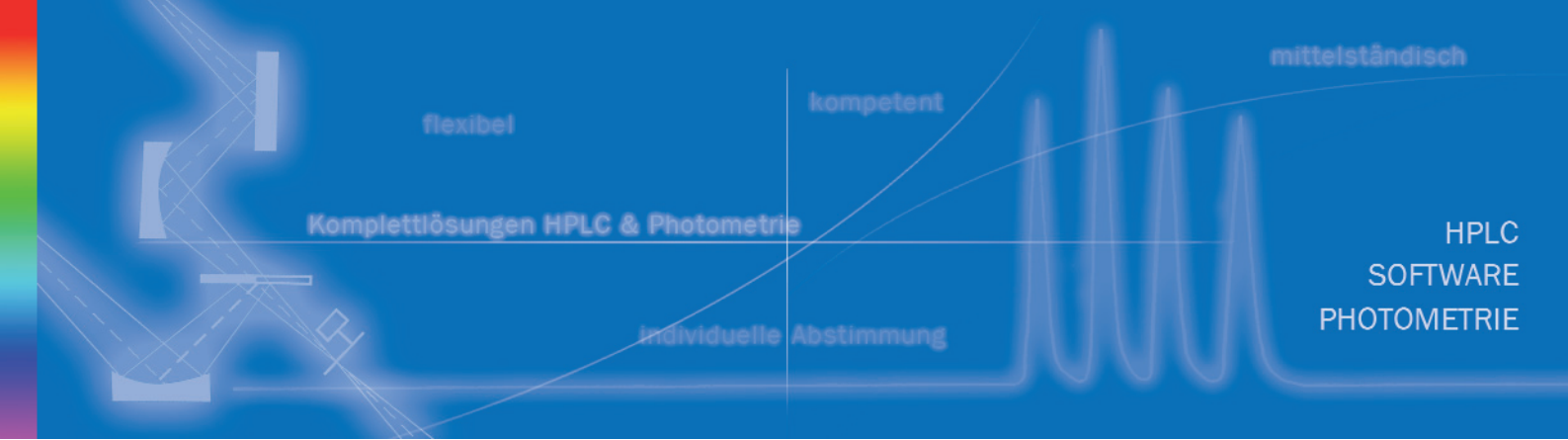
*Pic. 1: Complete detection of diffuse scattered light is not possible without an Integrating Sphere*



In order to detect all diffuse emitted light, the Integrating Sphere accessory is used. All light entering the Integrating Sphere at any angle is detected by the Photomultiplier through reflection by the OptoPolymer coating material.

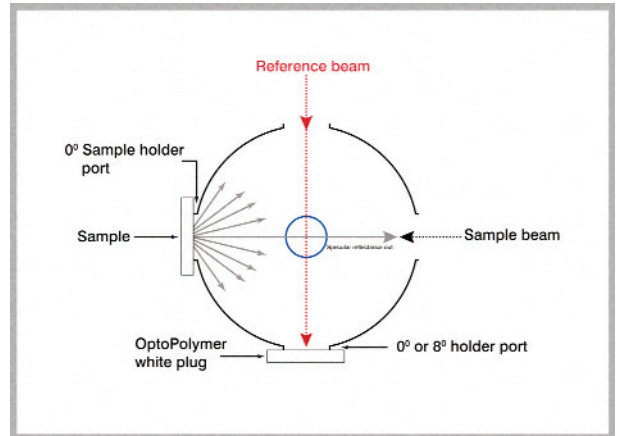
*Pic. 2: The principle of an Integrating Sphere ensures quantitative detection of all light entering the sphere*





For measuring diffuse reflection, the sample is placed at the rear side of the Integrating Sphere. The specular reflection is then directly exiting the integrating sphere at the entry opening, therefore only diffuse reflection is measured:

Pic. 3: Measuring a diffuse reflecting surface



### Application examples for spectrophotometers with an Integrating Sphere.

- Quality control in the paint industry
- Food analysis (e.g. colour measurement)
- Cosmetics (e.g. colour measurement of lipstick, nail varnish, sun creams)
- Quality control of packing material (e.g. UV blocking)
- Pharmaceutical industry (e.g. tablet colour)
- Environmental analysis (e.g. plant physiology)

### Specifications:

|                           |                                   |
|---------------------------|-----------------------------------|
| <b>Internal diameter:</b> | 63,5 mm (2,5 inch)                |
| <b>Coating:</b>           | OptoPolymer                       |
| <b>Detector:</b>          | Photomultiplier<br>Hamamatsu R955 |
| <b>Wavelength range:</b>  | 200 – 850 nm                      |
| <b>Baseline flatness:</b> | 100% T ±0,5 from 220 – 850 nm     |

**91-91672-F** Holder for thin foils



Removable, foils can be exchanged outside the sample chamber

**78-2770010** Set of Cell Holders



One cell holder each for 10 mm standard cells (one for sample side, one for reference side)

### Ordering Information:

**91-91672** Integrating Sphere  
200 – 850 nm, ID 63,5 mm  
Multiplier R955  
incl. 1 set white standards  
(OptoPolymer)  
- for Uvikon XL only -

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