

Hellma. Where precision becomes an art.



TrayCell  
Fibre-optic ultra-micro cell  
for UV/Vis analysis



## TrayCell

Unique. Precise. Flexible.



The TrayCell is a fibre-optic ultra-micro cell designed for the UV/Vis analysis of DNA/RNA and proteins. The dimensions of the TrayCell are equivalent to a standard cuvette in order to work in most spectrophotometers.

For photometric analysis  
in the nanolitre range

- **Efficient accessory**  
for your spectrophotometer
- **Extremely flexible and cost-effective solution**  
for the analysis of very small sample volumes (0.7 - 5  $\mu$ l)
- **Ideal for biomolecular laboratories**, to perform the analysis of nucleic acids and proteins in very small volumes



Hellma TrayCell in the cell holder of a spectrophotometer

## Examples for use

Determination of purity and contents of DNA/RNA

Determination of labelling efficiency for microarray experiments (FOI)

Protein analysis (A280, BCA, Bradford, Lowry etc.)

All UV/Vis analysis utilizing the wavelength range of 190 nm to 1100 nm

## TrayCell

Clear advantages for special applications

- Excellent reproducibility
- Quick and easy cleaning
- Simple handling
- High flexibility
- Low acquisition cost

### Product features

Different light paths standard 1 and 0.2 mm

Very small measurement volumes 0.7 to 5  $\mu$ l

Large dynamic range of 2 - 5000 ng/ $\mu$ l (dsDNA)\*

No dilution of sample needed

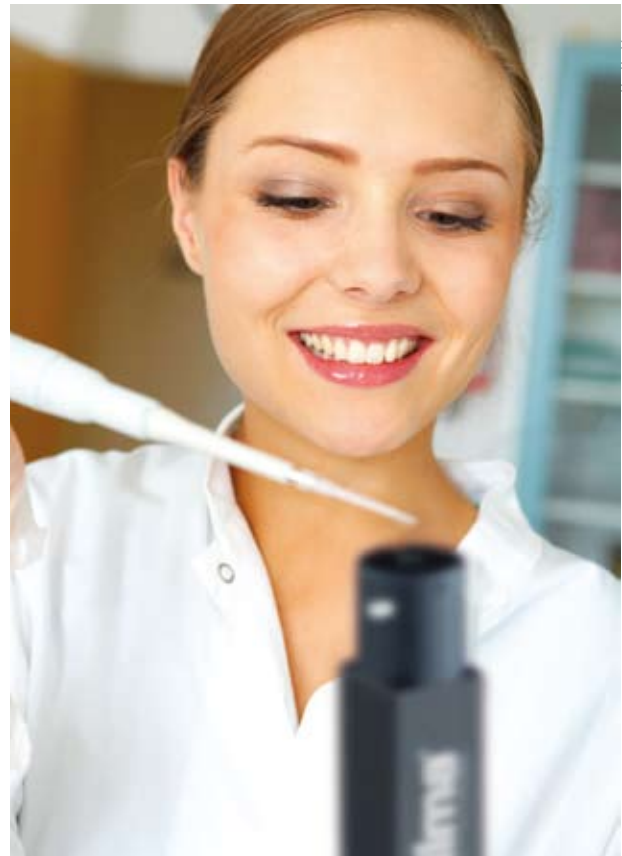
No evaporation of the sample through the cap

Reuse of samples possible

Simple application and cleaning

Suitable for all current spectrophotometers

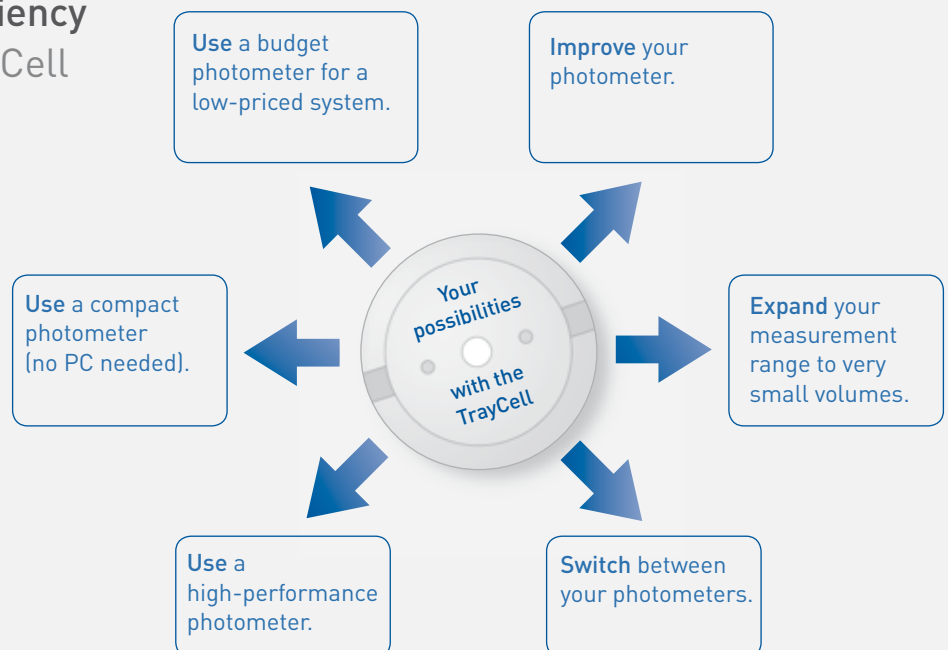
\*Depending on the spectrophotometer used



## High flexibility and efficiency

Is possible with the TrayCell

The TrayCell ensures a high flexibility. It is suitable for all current spectrophotometers and it can be used also in several spectrometers in your company.

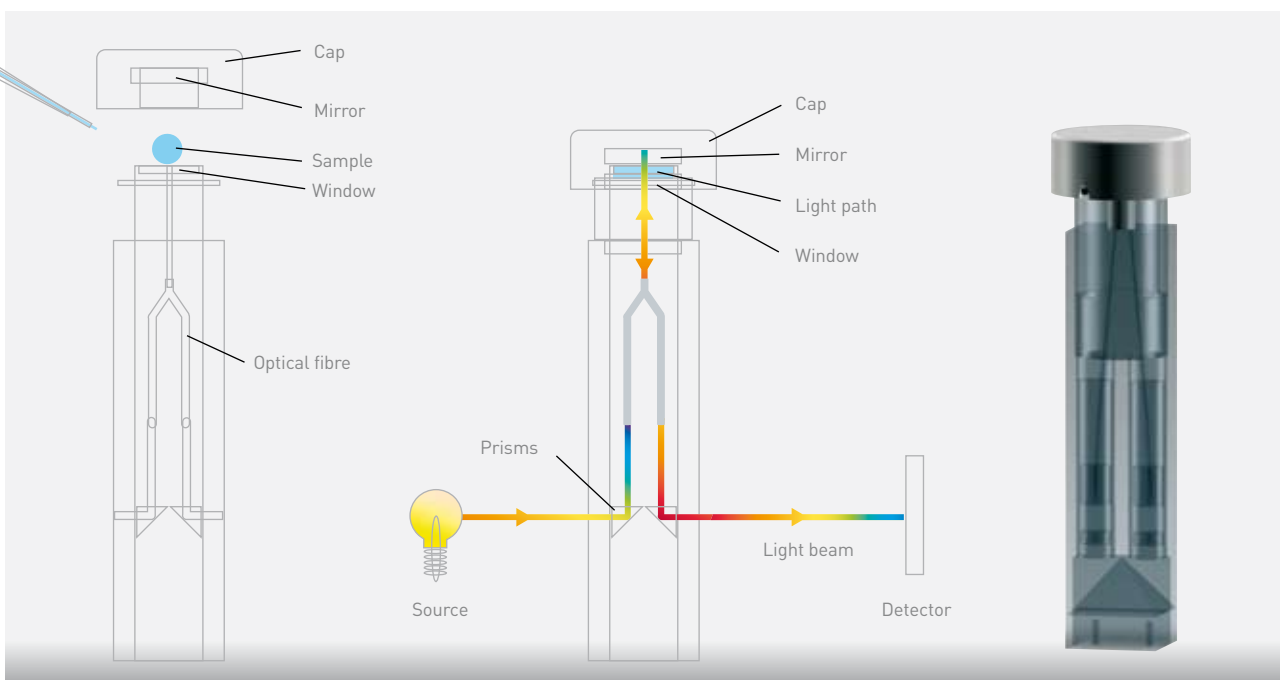


## High-tech in a small device

### The patented functional concept

TrayCell consists of a measuring cell and a cap with integrated mirror. The sample drop is pipetted onto the measuring window, then the cap is applied. The distance between the window and the mirror in the cap ensures a defined

light path. Via the internal prism and optical fibre the light is guided upwards through the sample to the mirror, where it is reflected. Again via the optical fibre and prism, the light is guided out of the TrayCell, towards the detector.



## Simple and efficient measuring

### One drop is enough



**1.** Position the TrayCell inside the cell holder of the spectrophotometer.



**2.** Pipette sample onto the measuring window.



**3.** Fit cap. Start measurement.



**4.** Take off cap, retrieve sample with a pipette, if desired.



**5.** Clean the measuring window and the cap (the TrayCell remains in the spectrophotometer).



**6.** Pipette new sample.

## TrayCell Fibre-optic ultra-micro cell

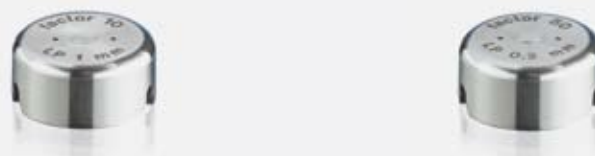
Catalogue number	105.800-UVS	105.810-UVS
Item number	105800-A3-V1-46	105810-A3-V1-46
Window material	Quartz SUPRASIL®	Quartz SUPRASIL®
Width/depth	12.5 x 12.5 mm	12.5 x 12.5 mm
Height*	68.5 mm (centre height 8.5 mm) 75 mm (centre height 15 mm) 80 mm (centre height 20 mm)	53 mm (centre height 8.5 mm) 59.5 mm (centre height 15 mm) 64.5 mm (centre height 20 mm)
Volume	0.7 - 5 µl	0.7 - 5 µl
Light path	0.2 mm or 1 mm (+/- 0.02 mm)	0.2 mm or 1 mm (+/- 0.02 mm)
Max. temperature	50°C	50°C
Centre height**	8.5 mm, 15 mm or 20 mm* (other centre heights available on request)	8.5 mm, 15 mm or 20 mm* (other centre heights available on request)
Fibre optic cable	built in, not exchangeable UV/Vis low solarisation 190 nm – 1,100 nm (52,632 cm <sup>-1</sup> – 9,100 cm <sup>-1</sup> )	built in, not exchangeable UV/Vis low solarisation 190 nm – 1,100 nm (52,632 cm <sup>-1</sup> – 9,100 cm <sup>-1</sup> )



Full-scale figure.

\*The selection of the correct height depends on the design of the cell holder and the type of spectrophotometer. The TrayCell should extend far enough out of the holder, which also should not interfere with the cap. \*\* The centre height can be adjusted with the provided adapters. When ordering, please specify the necessary centre height or the make and model of the spectrophotometer.

## TrayCell Cap



Catalogue number	665.703	665.704
Item number	665-703-1-40	665-703-0.2-40
Description	Cap with integrated mirror to adjust the light path	
Standard light path*	1 mm	0,2 mm
Mirror material	Quartz SUPRASIL® with aluminium mirror layer	Quartz SUPRASIL® with aluminium mirror layer

\*Other light paths available on request.

TrayCell. The application movie  
[www.traycell.com](http://www.traycell.com)

Hellma GmbH & Co. KG  
P.O. Box 1163  
79371 Müllheim / Germany  
phone + 49 7631 182-0  
fax + 49 7631 13546  
info@hellma-worldwide.com  
www.hellma-worldwide.com

