

Manual of UV/VIS Kit 2

article 1.08161.0001

Qualification of a UV/VIS spectrometer – parameter “stray light”

Suitable Cells:

Clean and dust-free quartz glass cells (e.g. Ord. No. 1.00784.0001) with a path length of 10 ± 0.01 mm must be used when checking UV-VIS spectrometers. The same sample and reference cell should be used for any one test procedure. Prior to measurement, the cell should be conditioned (rinsed) with the respective standard solution.

Opening and emptying the ampoule:

The ampoule should be opened by simply breaking off the neck (do not use a glass cutter). The opened ampoule should be used immediately. Always pour the standard solution directly into the cell- we recommend not to use pipettes, syringes, beakers, etc. If necessary, tap the bottom of the ampoule to ensure that it is properly emptied.

Conditioning and filling the cell:

Each ampoule contains sufficient liquid for rinsing (conditioning) the cell twice and subsequently filling it. To condition a cell, half-fill it with solution, invert it so that the inside is completely wetted and empty completely. Repeat the procedure.

Do not attempt to dry the inside of the cell. For measurement fill it immediately after conditioning. Prior to measurement, wipe the outside of the cell with a disposable paper tissue moistened in ethanol (for the purpose, please use residue-free absolute ethanol of spectroscopic quality, e.g. Uvasol®, Cat. No. 1.00980). Never touch the optical windows of the cell.

Step 1: Baseline correction:

Prior to measurement, the baseline should be corrected for the wavelength range used, with the beam path empty, according to instructions of the manufacturer.

Baseline correction	Empty beam path (no cell)	no ampoule
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Step 2: Measurement of the standard:

Completely empty the sample cell, rinse and fill with sodium nitrite solution for measurement.

Measurement of absorbance	Fill the sample cell with sodium nitrite	1 ampoule NaNO_2
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Information and minimum shelf life:

If stored protected from light and at room temperature (15-25°C), closed ampoules can be used for up to 36 months (see minimum shelf life on the label).

One package covers three qualifications

For each qualification 1 ampoule NaNO_2 is needed.