

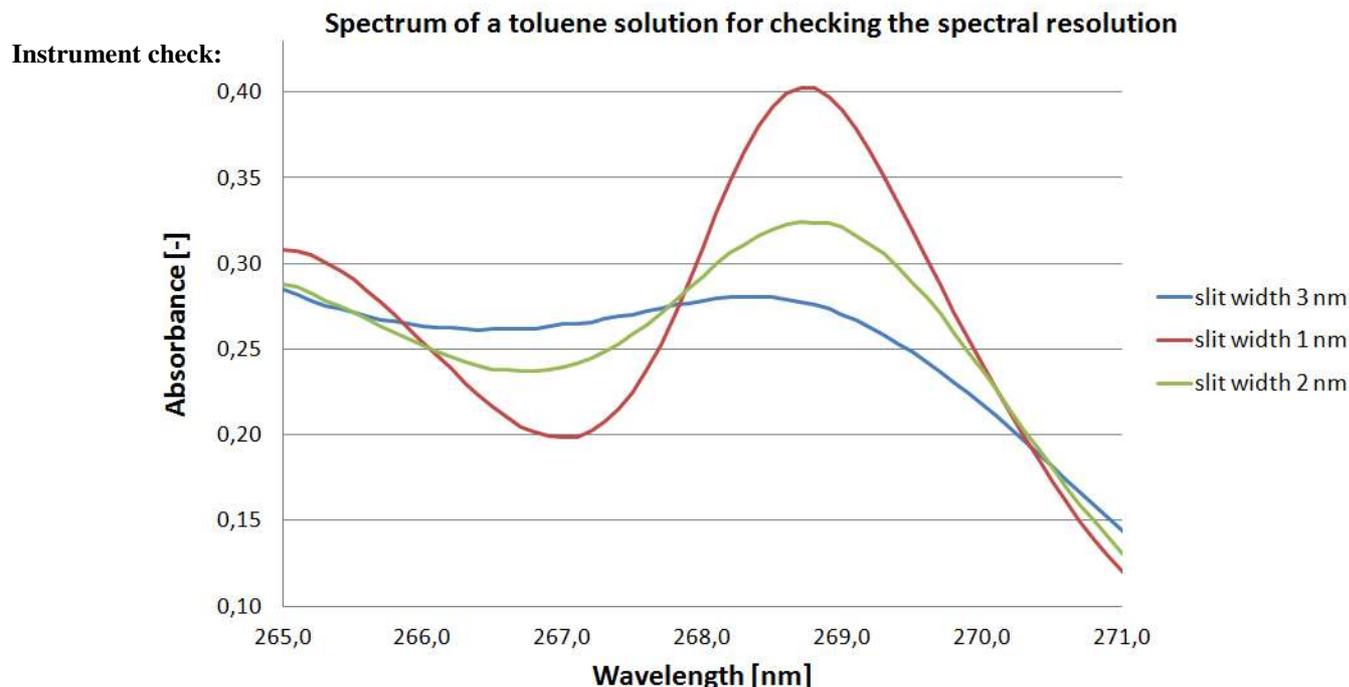
Technical Data Sheet

1.08165.0001

UV/VIS Standard 5 – Toluene solution for checking the spectral resolution of spectrophotometers, traceable to NIST

Application: In UV/VIS spectroscopy, the spectral slit width (spectral resolution) has a direct influence on the fine structure of the spectra and the intensity of the bands formed. Thus, any deviations in slit width have a direct influence on the analytical results obtained and can give rise to substantial errors. When using spectrophotometers, the true spectral resolution should be known and checked on a regular basis.

Norms: **Ph. Eur. (2.2.25):** “When prescribed in a monograph, measure the resolution of the apparatus as follows: record the spectrum of a 0.02 per cent V/V solution of toluene R in hexane R. The minimum ratio of the absorbance at the maximum at 269 nm to that at the minimum at 266 nm is stated in the monograph. Suitable certified reference materials may also be used.”



Interpretation of results: Evaluation of the results should produce a figure within specification. However, it should be noted that measurement is sensitive to temperature. In the case of deviation, the analysis should first be checked and instrument service notified if necessary.



Calculation help:

