



Spectrophotometer UV Resolution (Bandwidth) Qualification

Benzene Vapour Reference

Purpose

This reference is useful as a resolution check for instruments with spectral bandwidths less than 1 nm.

Description and Discussion

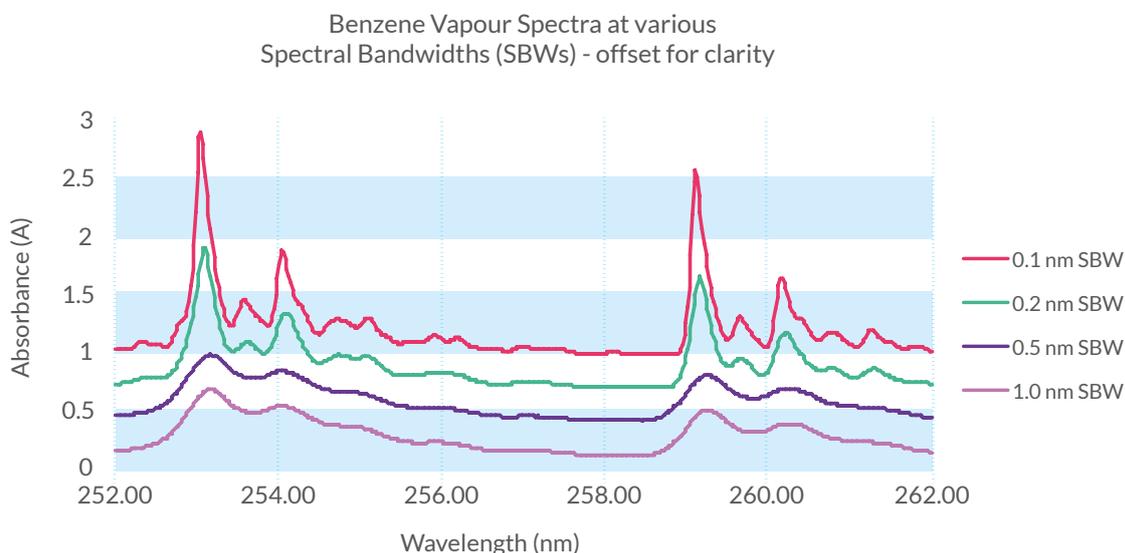
0.01 ml benzene liquid sealed by heat fusion into a UV grade quartz cell. At room temperatures, the benzene is in the vapour phase.

The benzene vapour spectrum contains characteristic features that may or may not be resolved, dependent upon the spectrophotometer SBW. This is illustrated in the following spectra:



The peaks at 253.49 nm and 259.56 nm (arrowed) should be visible at a SBW of 0.2 nm or less.

Note: Benzene vapour will not work well with a photodiode array spectrophotometer as this instrument type does not measure a continuum and the peaks will usually not be sufficiently well resolved to be useable.



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Certification and Documentation

A Certificate of Calibration and Traceability and full instructions for use are provided with each Reference Material. The certificate is supplied in electronic format, on a USB drive in the same box as the references, allowing hard copy to be produced on demand and giving easy interface to the user's own IT systems. Certification measurements are made on a reference spectrophotometer that has been qualified using Standard Reference Materials certified by the National Institute of Standards and Technology (NIST) in the USA, or against primary physical references such as elemental emission lines.

Accreditation

Starna Scientific is accredited to both ISO 17034 as a Reference Material producer, and ISO/IEC 17025 as a Calibration Laboratory for optical reference measurements. Starna Scientific's manufacturing facility is accredited to the ISO 9001 Quality Management System with BSI. For details see www.starna.com/accreditations.

Warranty

STARNA offers a Lifetime Guarantee on all Starna Certified Reference Materials, unless otherwise stated, such that any reference material that moves outside its published uncertainty budget will be replaced free of charge. This guarantee is subject to the reference materials being re-certified at least every two years and that the references have not been physically, thermally or optically abused. The STARNA UKAS accredited calibration laboratory aims to re-certify and despatch references within five working days from receipt.

How to Order

CATALOGUE NUMBER	
Benzene vapour cell	RM-BZ



Starna scientific
'Setting the Standard'

www.starna.com
sales@starna.com
+ 44 (0) 20 8501 5550