Spectrophotometer UV, Visible and NIR Wavelength Qualification

Starna Wide Range Wavelength Reference

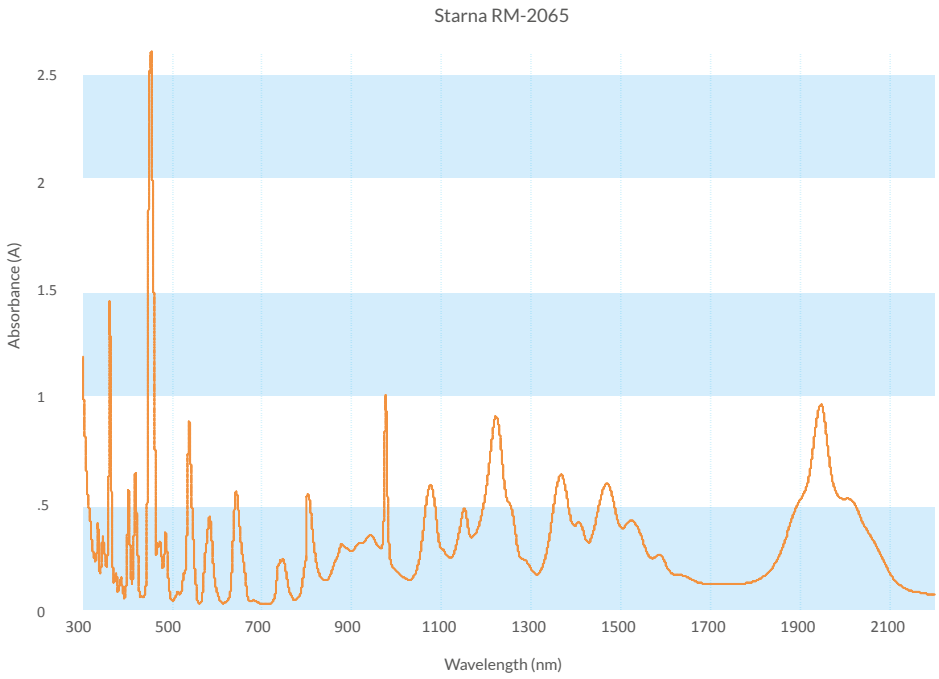
Purpose

This material is equivalent to NIST SRM 2065 and similar to other NIST references SRM 2035a and b. It is suitable for qualifying the wavelength scale of UV, Visible and NIR spectrophotometers over the range 335 nm to 1945 nm.

Description and Discussion

Glass filter containing a combination of oxides of rare earths holmium, samarium, ytterbium, neodymium, lanthanum and other elements. Variations from melt to melt of the glass can cause small uncertainties in peak position, so each Starna filter is individually certified. Sliding window covers protect the surface from damage when not in use. This material is equivalent to NIST SRM 2065 and similar to other NIST references NIST 2035a and b.

The spectrum provides 20 peaks for wavelength calibration, evenly-spaced between 335 nm in the UV and 1945 nm in the NIR, so that instruments can now be qualified over this wide range using a single reference.



Approximate peak wavelength values (in nm) are:

335, 345, 361, 375, 386, 402, 418, 485, 538, 583, 642, 748, 804, 976, 1076, 1151, 1222, 1366, 1469, 1945

Note: The above values are for guidance only. Because the absorption bands are asymmetric, measured values will be spectral bandwidth dependent. The Calibration Certificate accompanying each Reference gives actual values measured at bandwidths of 0.50, 1.00, 1.50, 2.00, 3.00 and 5.00nm, and only these certified values should be used for instrument qualification. On request, Starna can provide certified values at other wavelengths and bandwidth values.

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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 three 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
Starna wide range wavelength reference	**RM-2065**

Starna scientific

'Setting the Standard'

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