



Starna scientific
'Setting the Standard'

Quality Assurance in the Analytical Laboratory

Spectrophotometer UV and Visible Wavelength Qualification

Combined Holmium Oxide & Didymium Oxide Solution Reference

Purpose

This Reference Material can be used to qualify the wavelength calibration, in the ultraviolet and visible regions of the spectrum (240 nm - 795 nm) of spectrophotometers with spectral bandwidths of 5 nm or less.

Description and Discussion

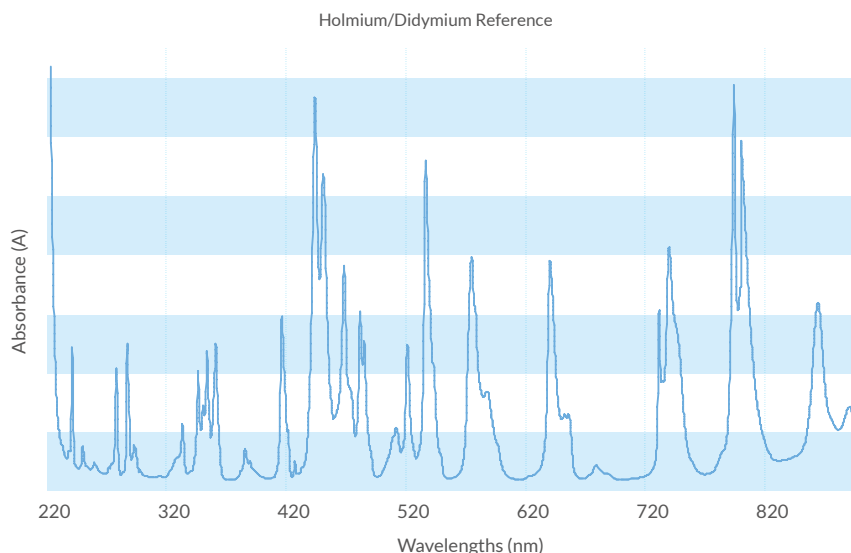
Holmium oxide and didymium (neodymium & praseodymium) oxide in 10% v/v perchloric acid, permanently sealed by heat fusion into a 10 mm far UV quartz cuvette.

Holmium and didymium (neodymium & praseodymium) oxides in perchloric acid have been separately used for the validation of the wavelength scale of UV and visible spectrophotometers for many years. Now, these materials are available from Starna as a combined reference, providing useful peaks that are interference-free over its whole wavelength range from 240 to 795 nm.

14 peaks are certified, with nominal values: 241, 287, 361, 416, 444, 482, 485, 522, 537, 575, 641, 732, 740 and 794 nm.



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 0.10, 0.25, 0.50, 1.00, 1.50, 2.00, 3.00, 4.00 and 5.00 nm, 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.

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.

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.

How to Order

CATALOGUE NUMBER	
Holmium/Didymium liquid cell	RM-HDL



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