



Starna scientific
'Setting the Standard'

Quality Assurance in the Analytical Laboratory

Raman Spectrophotometer Wavelength Qualification

Cyclohexane Reference

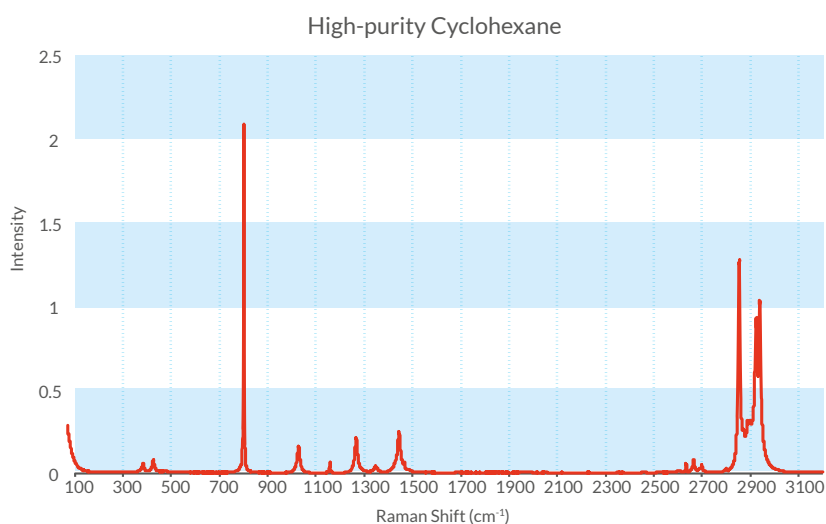
Purpose

This reference material may be used to qualify the wavelength scale of Raman Spectrometers between 380 cm^{-1} and 3000 cm^{-1} . It is cited for this purpose in ASTM E1840 - 96(2014).

Description and Discussion

Reagent grade cyclohexane, permanently sealed by heat fusion into a 10 mm quartz cuvette.

Compared to atomic emission lines, Raman shift standards offer an easier-to-use alternative for qualifying the wavelength scale of Raman Spectrometers. They are also independent of laser frequency. The Raman shift values for cyclohexane have been accurately measured and it is widely used as a reference material. The permanently sealed cuvette eliminates the hazards associated with handling this volatile, toxic and highly flammable material. Using an excitation wavelength of 514.5 nm , 11 shift values covering a range from 384.1 to 2938.3 cm^{-1} can be identified.



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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.

How to Order

Starna Cyclohexane Cell

Warranty

STARNA offers a Lifetime Guarantee on all Starna 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.

**CATALOGUE
NUMBER**

RM-C6H12



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