

Klarite® sCAL

Silicon Calibration Standard



Mesophotonics sCAL silicon physical calibration standards provide an easy to use tool for verifying the calibration of Raman spectrometers. Each device is individually numbered and bar-coded to allow spectra to be linked directly to each calibration chip. The silicon is also mounted in a defined crystallographic direction enabling the reference spectra to be more accurately compared against published standards.

Multiple sCAL slides can be supplied from the same original single crystalline piece of pure silicon. These can then be used for calibrating multiple instruments in multiple sites with the reassurance that they are all being calibrated to the same original source material.

The silicon calibration area is mounted on standard 75x25mm glass microscope slide for optimum ease of use with standard Raman microscopes. By using a solid material standard sCAL gives the same calibration trace independent of the magnification of the Raman system, making it ideal for microscope based Raman systems or miniature Raman systems.

The silicon surface may be cleaned for optimum performance and a storage box is supplied to keep silicon surface dust free.

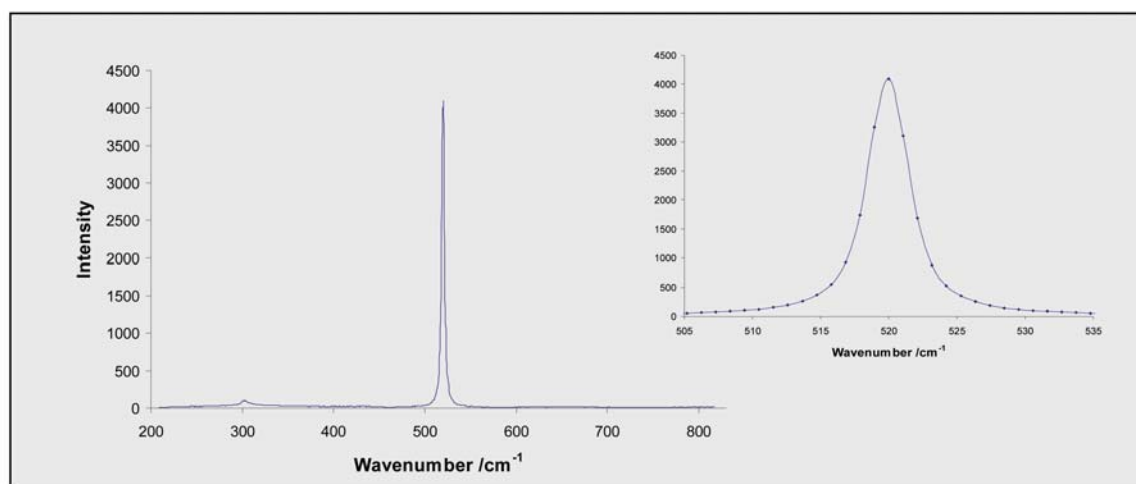
KEY FEATURES

- Individually numbered and bar-coded for traceability
- Mounted on 3" glass slide for ease of use.
- Defined silicon composition and orientation for improved calibration.
- Compatible with most standard Raman spectrometers
- Rapid calibration due to the very high Raman signals from silicon

APPLICATIONS

- Raman system calibration
- Day to day calibration verification
- Raman system configuration and set-up

STANDARD SILICON RAMAN SPECTRUM



Typical spectra observed with 4cm-1 resolution Raman microscope at room temperature



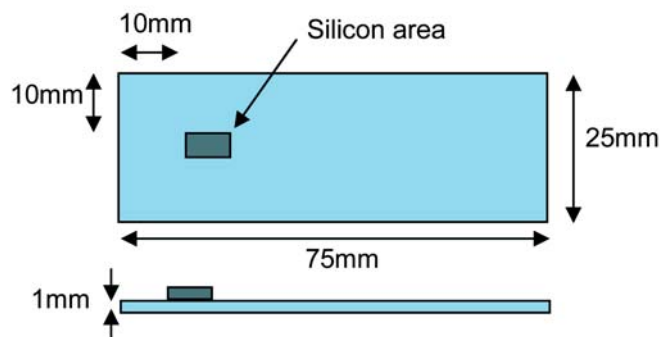
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Specifications

Device Parameters

Klarite® sCAL Silicon Calibration Standard	
Silicon area	6 mm x 10 mm
Silicon orientation	<1-0-0>
Silicon doping	P type Boron doped
Resitivity	1-10 Ohm-cm
Slide size	75 mm x 25 mm x 1mm
Raman excitation wavelength	Any standard wavelength < 1.1µm
Product Code	305
Silicon Reference Spectra	Idewolf, Semiconductor Science and Technology 11 (1996) 139-154.

Chip & Slide dimensions



Ordering Information:

Klarite® sCAL substrates are supplied premounted on a standard microscope slide. If you require unmounted devices or more information on this product please contact Mesophotonics.

Please quote product code 305

* Legal notice: All statements, information and recommendations related to products herein are based upon information believed to be reliable or accurate. However the accuracy or completeness is not guaranteed and no responsibility is assumed for inaccuracies. Specifications subject to change.

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