

Relative Intensity Correction Standard for Raman Spectroscopy: 1064 nm Excitation

Art. ID	NIST-2244
Unit	each
Deliverydetails	No Dangerous Good /not restricted

Description

This Standard Reference Material (SRM®) is a certified spectroscopic standard for the correction of the relative intensity of Raman spectra obtained with instruments employing 1064 nm laser excitation. NIST-2244 consists of an optical glass that emits a broadband luminescence spectrum when excited at this laser wavelength. The relative spectral intensity of the glass luminescence has been determined through the use of a white-light, uniform-source, integrating sphere that has been calibrated for its irradiance at NIST and a high-emissivity blackbody source. The shape of the mean luminescence spectrum of this glass is described by a mathematical expression that relates the relative spectral intensity to the wavenumber (cm⁻¹) expressed as the Raman shift from the excitation laser wavelength. This polynomial, together with a measurement of the luminescence spectrum of the standard, can be used to determine the spectral intensity-response correction that is unique to each Raman system. The resulting instrument-intensity-response correction may then be used to obtain Raman spectra that are largely free from instrument-induced spectral artifacts. /// Sample value(s) - please ask for current certificate.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
A0	Polynomial Coefficient (20 °C - 25 °C) (1064 nm excitation)		0,405953			
A1	Polynomial Coefficient (20 °C - 25 °C) (1064 nm excitation)		0,000520345			
A2	Polynomial Coefficient (20 °C - 25 °C) (1064 nm excitation)		5,30E-07			
A3	Polynomial Coefficient (20 °C - 25 °C) (1064 nm excitation)		(-6,84463E-10)			
A4	Polynomial Coefficient (20 °C - 25 °C) (1064 nm excitation)		2,10E-13			
A5	Polynomial Coefficient (20 °C - 25 °C) (1064 nm excitation)		(-2,05741E-17)			