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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Analytical Instruments Manufacturers' Association (JAIMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

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General rules for Raman spectrometry

1 Scope

This Japanese Industrial Standard specifies general rules for Raman spectrometry where Raman scattering spectrum of substance is measured by using Raman spectrometer according to the excitation light in the region from ultraviolet and visible to near infrared, then the qualitative analysis and the quantitative analysis of substance are carried out.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS C 6802	Safety of laser products
JIS K 0050	General rules for chemical analysis
JIS K 0211	Technical terms for analytical chemistry (General part)
JIS K 0212	Technical terms for analytical chemistry (optical part)
JIS K 0215	Technical terms for analytical chemistry (Analytical instrument part)

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in **JIS K 0050**, **JIS K 0211**, **JIS K 0212** and **JIS K 0215**, and the following apply.

3.1 Raman shift

a difference in wave number between excitation light and Raman scattering light

It is expressed by the frequency, difference in vibration number and difference in energy corresponding to the molecular vibration.

3.2 linear Raman scattering, spontaneous Raman scattering

Raman scattering having the intensity proportional to the intensity of incident light

It is used to distinguish it from the non-linear Raman scattering by the higher order non-linear optical effect.

3.3 Stokes Raman scattering

Raman scattering shifting from the wave length, wave number, number of vibration or frequency, or energy of the incident excitation light to the long wave length, low wave number, low number of vibration or low frequency, or low energy side

3.4 anti-Stokes Raman scattering

Raman scattering shifting from the wave length, wave number, number of vibration or