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**General rules for ICP-mass spectrometry**

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## Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Analytical Instruments Manufacturers' Association (JAIMA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied *mutatis mutandis* pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS K 0133 : 2007**), which has been technically revised.

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## General rules for ICP-mass spectrometry

### 1 Scope

This Standard specifies general matters relating to inductively coupled plasma mass spectrometers and analytical instruments systems incorporating inductively coupled plasma mass spectrometers used for qualitative analysis, quantitative analysis and isotope ratio measurements of elements.

### 2 Normative references

Part or all of the provisions of the following standards, 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 K 0116 *General rules for atomic emission spectrometry*

JIS K 0211 *Technical terms for analytical chemistry (General part)*

JIS K 0215 *Technical terms for analytical chemistry (Analytical instrument part)*

JIS K 0557 *Water used for industrial water and wastewater analysis*

JIS Z 8401 *Rounding of numbers*

JIS Z 8402-1 *Accuracy (trueness and precision) of measurement methods and results — Part 1 : General principles and definitions*

JIS Z 8402-2 *Accuracy (trueness and precision) of measurement methods and results — Part 2 : Basic method for the determination of repeatability and reproducibility of a standard measurement method*

### 3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in JIS K 0116, JIS K 0211, JIS K 0215, JIS Z 8402-1 and JIS Z 8402-2 apply.

#### 3.1

##### ICP-mass spectrometer, ICP-MS

instrument for analysing elements or isotopes which measures the number of ions at mass-to-charge ratio ( $m/z$ ) of analyte elements by ionizing the analyte elements contained in samples by using inductively coupled plasma (hereafter referred to as ICP) and introducing the generated ions into a mass spectrometer

#### 3.2

##### mass resolution

indicator for assessing the influence of adjacent isotopic signals

Note 1 to entry When the peak width ( $u$ ) at the maximum intensity of 5 % of an