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Testing methods for industrial water and industrial wastewater — Part 3: Metals

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Act.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

JIS K 0102 series consists of the following 5 parts under the general title *Testing methods for industrial water and industrial wastewater* :

Part 1 : Test methods for general physics and chemistries

Part 2 : Inorganic anions, ammonium ion, organic nitrogen, total nitrogen and total phosphorus

Part 3 : Metals

Part 4 : Organic substances (to be published)

Part 5 : Microorganisms and organisms (to be published)

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Testing methods for industrial water and industrial wastewater — Part 3 : Metals

1 Scope

This Japanese Industrial Standard specifies the test methods for metals in industrial water and industrial wastewater discharged from factories including places of business (hereafter referred to as industrial wastewater). Unless otherwise stated in the individual test clauses, the tests shall apply to both industrial water and industrial wastewater.

For test methods in this Standard for which a corresponding International Standard exists, the number of the International Standard and the symbol of degree of its correspondence with **JIS** are shown in relevant test clauses.

Where modifications have been made in the technical contents of the corresponding International Standard, the modifications and their explanations are given in Annex Q.

2 Normative references

Part or all of the provisions of the standards listed in Annex P, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) listed therein shall be applied.

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS K 0211** and **JIS K 0215** apply.

4 General requirements

4.1 Chemical analysis

4.1.1 General

General requirements of chemical analysis are provided in **JIS K 0050**.

4.1.2 Dynamic range

The dynamic ranges of different test methods shall be as follows.

a) For the flow analysis, flame photometry, atomic absorption spectrometry, inductively coupled plasma atomic emission spectrometry (hereafter referred to as ICP atomic emission spectrometry), inductively coupled plasma mass spectrometry (hereafter referred to as ICP mass spectrometry) and ion chromatography, the dynamic range is indicated by the concentration (mg/L or μg/L) of the analyte in the test sample (final sample solution having undergone pretreatment or other preparatory operation). For the analysis of alkylmercury (II) compounds, the dynamic range is indicated by the concentration of the analyte (as mercury) in the sample;