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**Iron and steel — Methods for deter-
mination of vanadium content**

ICS 77.080.01

Descriptors : iron, transition metals, steels, ferrous metals, ferrous alloys, vanadium,
determination of content, chemical analysis and testing

Reference number : JIS G 1221 : 1998 (E)

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS G 1221:1992** is replaced with **JIS G 1221:1998**.

In this revision, Annex 2 and Annex 4 are prepared based on the corresponding ISO Standards.

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Iron and steel—Methods for determination of vanadium content

Introduction In this Japanese Industrial Standards, Annex 2 is prepared based on **ISO 4947**, *Steel and cast iron—Determination of vanadium content—Potentiometric titration method* issued in 1986 and Annex 4 is prepared based on **ISO 4942**, *Steel and iron—Determination of vanadium content—N-BPHA spectrophotometric method* issued in 1988, without changing original technical contents. Items not specified in the corresponding International Standards are added as Japanese Industrial Standard.

The "informative reference" underlined with dotted line in this Standard is the item which does not exist in the original International Standard.

1 Scope This Japanese Industrial Standard specifies the methods for determination of vanadium in iron and steel.

Remarks : The International Standards corresponding to this Standard are shown below.

ISO 4947 *Steel and cast iron—Determination of vanadium content—Potentiometric titration method*

ISO 4942 *Steel and iron—Determination of vanadium content—N-BPHA spectrophotometric method*

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS G 1201 *General rules for chemical analysis of iron and steel*

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

JIS K 8001 *General rule for test methods of reagents*

JIS Z 8402 *General rules for permissible tolerance of chemical analyses and physical tests*

3 General matters General matters common to determination method shall be as given in **JIS G 1201**. However, **JIS G 1201** is not applied to Annexes 2 and 4.

4 Classification of determination methods The method for determination of vanadium shall be any one of following methods:

- a) **Potassium permanganate oxidation ammonium iron (II) sulfate titration method**
This method applied to the sample of 0.10 % (m/m) or over up to and incl. 6.0 % (m/m) and shall be as specified in Annex 1 (normative).