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JIS M 8225 : 1997

**Iron ores—Methods  
for determination  
of vanadium content**

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**ICS** 73.060.10

**Descriptors** : determination of content, chemical analysis and testing, vanadium,  
transition metals, iron ores, metalliferous minerals

**Reference number** : JIS M 8225 : 1997 (E)

## 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 M 8225 : 1983 is replaced with JIS M 8225 : 1997.

In this revision, the relevant ISO standards are laid down as Annex 1, Annex 2, and Annex 3, in order to harmonize with International Standards.

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Date of Revision: 1997-08-20

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Investigated by: Japanese Industrial Standards Committee  
Divisional Council on Iron and Steel

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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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## Iron ores—Methods for determination of vanadium content

**Introduction** Annex 1 in this Standard is the Japanese Industrial Standard which was specified on the **ISO 9683** *Iron ores—Determination of vanadium content—BPHA spectrophotometric method* published in 1991, Annex 2 and Annex 3 are the Japanese Industrial Standard which were specified on the **ISO 9684** *Iron ores—Determination of vanadium content—Flame atomic absorption spectrometric methods* published in 1991.

**1 Scope** This Japanese Industrial Standard specifies the methods for vanadium in iron ores.

**2 Normative reference** The following standard contains provision which, through reference in this Standard, constitutes provision of the Standard. The most recent edition of the standard indicated below shall be applied.

JIS M 8202 *Iron ores – General rules for chemical analysis*

**3 General requirements** General requirements common to methods for determination shall be in accordance with **JIS M 8202**.

**4 Division of determination methods** The method for determination of vanadium content shall be in accordance with either one of the following.

- a) **N-BPHA extraction spectrophotometric method** This method is applicable to the sample of vanadium 0.05 % (m/m) or over up to and including 1.0 % (m/m) in accordance with Annex 1, but not applicable to the sample of titanium contents not less than 0.5 % (m/m).
- b) **Flame atomic absorption spectrometric method** This method is applicable to vanadium contents 0.05 % (m/m) or over up to and including 0.5 % (m/m) in accordance with Annex 2.
- c) **Phosphovanadotungstate extraction flame atomic absorption spectrometric method** This method is applicable to vanadium contents 0.001 % (m/m) or over up to and including 0.05 % (m/m) in accordance with Annex 3.