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**Methods for determination
of manganese in nickel
and nickel alloys**

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chemical analysis and testing

Reference number : JIS H 1274 : 1998 (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 H 1274 : 1988** is replaced with **JIS H 1274 : 1998**.

In this revision, in order to make comparison with ISO, prepare JIS conforming with ISO, and make it easy to propose of the draft of ISO based on the JIS, **ISO 6351 : 1985**, *Nickel—Determination of silver, bismuth, cadmium, cobalt, copper, iron, manganese, lead and zinc contents—Flame atomic absorption spectrometric method*, **ISO 7530-1 : 1990**, *Nickel alloys—Flame atomic absorption spectrometric analysis—Part 1 : General requirements and sample dissolution*, and **ISO 7530-6 : 1990**, *Nickel alloys—Flame atomic absorption spectrometric analysis—Part 6 : Determination of manganese content* are made a part of this Standard. Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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Methods for determination of manganese in nickel and nickel alloys

Introduction This Standard is a Japanese Industrial Standard prepared so that its technical contents conform to the corresponding parts (a part relating to determination of manganese for **ISO 6351**, and the whole for **ISO 7530**) of the corresponding **ISO 6351** : 1985, *Nickel—Determination of silver, bismuth, cadmium, cobalt, copper, iron, manganese, lead and zinc contents—Flame atomic absorption spectrometric method*, **ISO 7530-1** : 1990, *Nickel alloys—Flame atomic absorption spectrometric analysis—Part 1 : General requirements and sample dissolution*, and **ISO 7530-6** : 1990, *Nickel alloys—Flame atomic absorption spectrometric analysis—Part 6 : Determination of manganese content*.

Further, a determination method having no corresponding International Standard is specified as JIS.

1 Scope This Japanese Industrial Standard specifies the methods for determination of manganese in nickel and nickel alloys.

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

ISO 6351 : 1985 *Nickel—Determination of silver, bismuth, cadmium, cobalt, copper, iron, manganese, lead and zinc contents—Flame atomic absorption spectrometric method*

ISO 7530-1 : 1990 *Nickel alloys—Flame atomic absorption spectrometric analysis—Part 1 : General requirements and sample dissolution*

ISO 7530-6 : 1990 *Nickel alloys—Flame atomic absorption spectrometric analysis—Part 6 : Determination of manganese content*

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

JIS H 1270 *General rules for chemical analysis of nickel and nickel alloys*

3 General matters General matters common to the methods of chemical analysis shall be in accordance with **JIS H 1270**.

4 Classification of determination methods The method for determination of manganese shall be in accordance with any one of the following methods. The sample to which each determination applies shall be as given in Table 1.

- a) **Permanganic acid absorptiometry** This method applies to the sample of 0.05 % (*m/m*) or over up to and including 2.0 % (*m/m*) in manganese content.
- b) **Flame atomic absorption spectrometric method (method A)** This method applies to the sample of 0.01 % (*m/m*) or over up to and including 2.0 % (*m/m*) in manganese content.