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Iron and steel—Determination of sulfur content—Part 3: Methylene blue spectrophotometric method after separation of hydrosulfide

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by the Japan Iron and Steel Federation (JISF) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently, **JIS G 1215**:1999 has been withdrawn and replaced with this Standard established by separating part of it.

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JIS G 1215 series consists of the following 4 parts under the general title "*Iron and steel—Determination of sulfur content*":

Part 1: Gravimetric method after separation of iron

Part 2: Gravimetric method after chromatographic separation

Part 3: Methylene blue spectrophotometric method after separation of hydrosulfide

Part 4: Infrared absorption method after combustion in an induction furnace

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Iron and steel—Determination of sulfur content—Part 3: Methylene blue spectrophotometric method after separation of hydrosulfide

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 10701** published in 1994 without any modifications of the technical contents.

The portions underlined with dots are the matters not given in the corresponding International Standard.

1 Scope

This Standard specifies a methylene blue spectrophotometric method for the determination of sulfur in iron and steel.

The method is applicable to sulfur contents between 0.000 3 % (*m/m*) and 0.010 % (*m/m*). However, niobium, silicon, tantalum and titanium interfere in the determination of sulfur.

Depending on the concentration of the interfering elements, the application ranges and test portion masses given in table 1 apply.

Table 1 Maximum allowable content of the interfering elements, test portion and applicable ranges

Maximum allowable content of the interfering elements % (*m/m*)				Test portion	Application ranges Δw_S
Nb	Si	Ta	Ti	g	% (*m/m*)
0.5	1.0	0.3	1.0	1.0	0.000 3 to 0.001 0
1.0	2.0	0.6	2.0	0.5	0.001 0 to 0.010

NOTE : The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows:

ISO 10701 : 1994 *Steel and iron—Determination of sulfur content—Methylene blue spectrophotometric method* (IDT)

The symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For standards with the year indication, only

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