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**Iron and steel — Determination of
nitrogen — Part 1: Amidosulfuric acid
titrimetric method after ammonium
distillation separation**

ICS 77.080.01

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Contents

		Page
Introduction		1
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	General	2
5	Summary	2
6	Reagents	2
7	Apparatus and instruments	3
8	Weighing of sample	5
9	Procedure	5
9.1	General	5
9.2	Preparation of sample solution	6
9.3	Titration	8
10	Blank test	8
11	Calculation	8
12	Precision	9
Annex JA (informative)	Comparison table between JIS and corresponding International Standard	10

Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act in response to a proposal for establishment of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This Standard partially replaces **JIS G 1228** : 2006, which has been withdrawn.

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JIS G 1228 series consists of the following 3 parts under the general title *Iron and steel — Determination of nitrogen* :

Part 1 : Amidosulfuric acid titrimetric method after ammonium distillation separation

Part 2 : Spectrophotometric methods after ammonium distillation separation

Part 3 : Thermal conductimetric method after fusion in a current of inert gas

Iron and steel-Determination of nitrogen-Part 1 : Amidosulfuric acid titrimetric method after ammonium distillation separation

Introduction

This Japanese Industrial Standard has been prepared based on ISO 10702 : 1993, Edition 1, with some modifications of the technical contents.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the amidosulfuric acid titrimetric method after ammonium distillation separation, among methods for the determination of nitrogen in steel and iron.

The method is applicable to the determination of a nitrogen content (mass fraction) of 0.002 % or over up to and including 0.5 %.

However, the method is not applicable to samples containing silicon nitrides.

NOTE 1 The determination range in JIS G 1228 (all parts) is shown in Table 1.

Table 1 Determination range in JIS G 1228 (all parts)

Standard No.	Determination range [mass fraction (%)]
JIS G 1228-1	0.002 or over up to and incl. 0.5
JIS G 1228-2	0.000 5 or over up to and incl. 0.050
JIS G 1228-3	0.000 8 or over up to and incl. 0.5

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 10702 : 1993 *Steel and iron — Determination of nitrogen content— Titrimetric method after distillation* (MOD)

In addition, 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

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (in-