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(JSCE/JSA)

**Stress corrosion cracking testing of
metals and alloys using reverse U-bend
test method**

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In the event of any doubts arising as to the contents,
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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Society of Corrosion Engineering (JSCE)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS G 0511 : 2014**), which has been technically revised.

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Stress corrosion cracking testing of metals and alloys using reverse U-bend test method

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 7539-10 : 2020**, Edition 2, 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 JD. Annex JA, Annex JB and Annex JC are unique to **JIS** and not given in the corresponding International Standard.

1 Scope

This Standard specifies the methods for investigating the susceptibility mainly of Fe-based alloys and Ni-based alloys of austenitic materials to stress corrosion cracking in the environment of high-temperature and high-pressure water, using the reverse U-bend specimens.

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

ISO 7539-10 : 2020 *Corrosion of metals and alloys — Stress corrosion testing — Part 10: Reverse U-bend method* (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**.

WARNING Persons carrying out tests based on this Standard should be familiar with normal laboratory practice. This Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this Standard to establish safety and health practices.

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 (including amendments) indicated below shall be applied.

JIS R 6251 *Abrasive cloths*

JIS R 6252 *Abrasive papers*

JIS R 6253 *Waterproof abrasive papers*

JIS Z 2241 *Metallic materials — Tensile testing — Method of test at room tem-*