

AS/NZS 1050.38:1994

ISO 9647:1989

Reconfirmed 2016

Australian/New Zealand Standard

Methods for the analysis of iron and steel

Part 38: Determination of vanadium content—Flame atomic absorption spectrometric method

[ISO title: Steel and iron—Determination of vanadium
content—Flame atomic absorption spectrometric method]

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CH/10, Analysis of Metals. It was approved on behalf of the Council of Standards Australia on 28 March 1994 and on behalf of the Council of Standards New Zealand on 5 August 1994. It was published on 8 August 1994.

The following interests are represented on Committee CH/10:

Aluminium Development Council, Australia
Australasian Institute of Mining and Metallurgy
Australian Chamber of Commerce and Industry
Australian Lead Development Association
Bureau of Steel Manufacturers of Australia
Copper Technical Data Centre, Australia
National Association of Testing Authorities, Australia
Railways of Australia Committee

Additional interests participating in preparation of Standard:

Analytical laboratories
Department of Defence, Australia, Materials Research Laboratory
Steel manufacturers

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 1050.38:1994

Methods for the analysis of iron and steel

**Part 38: Determination of vanadium content—Flame atomic absorption
spectrometric method**

RECONFIRMATION NOTICE

Technical Committee CH-010 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Australian Aluminium Council
Bureau of Steel Manufacturers of Australia
International Copper Association Australia
International Precious Metals Institute
National Association of Testing Authorities Australia

NOTES

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Methods for the analysis of iron and steel

Part 38: Determination of vanadium content—Flame atomic absorption spectrometric method

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/10 on the Analysis of Metals.

This Standard is issued as a Joint Standard under the terms of the Active Cooperation Agreement between Standards Australia and Standards New Zealand.

This Standard is technically identical to ISO 9657:1989, *Steel and iron—Determination of vanadium content—Flame atomic absorption spectrometric method* published by the International Organization for Standardization (ISO). This ISO Standard was drafted with input by Committee CH/10.

This Standard specifies a flame atomic absorption spectrometric method for the determination of vanadium content between 0.005% (*m/m*) and 1.0% (*m/m*) in steel, provided that the tungsten content is not higher than 10 mg and the titanium content is not higher than 5 mg. The procedure involves dissolution of a test portion in acid, addition of aluminium solution and spraying the solution into a dinitrogen monoxide-acetylene flame. Spectrometric measurement of the atomic absorption of the 318.4 nm spectral line emitted by a vanadium hollow cathode lamp allows determination of the vanadium concentration.

Under arrangements made between Standards Australia/Standards New Zealand and the international standards bodies, ISO and IEC, as well as certain other Standards organizations, users of this Standard are advised that the number of this Standard is not reproduced on each page. Its identity is shown only on the cover and title pages.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

For the purpose of this Standard, the ISO text should be modified as follows:

- (a) *Terminology* The words ‘Australian Standard’, ‘New Zealand Standard’ or ‘Joint Australian/New Zealand Standard’ should replace the words ‘International Standard’ wherever they appear.
- (b) *References* The references to International Standards should be replaced by references to the following Australian/New Zealand Standards:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS	
377	Wrought steel—Selection and preparation of samples and test pieces	1213	Iron and steel — Methods of sampling
385	Laboratory glassware—Burettes	2165	Burettes and bulb burettes
385.1	Part 1: General requirements		
648	Laboratory glassware—One-mark pipettes	2166	One-mark pipettes
1042	Laboratory glassware—One-mark volumetric flasks		
2164	One-mark volumetric flasks		
5725	Precision of test methods—Determination of repeatability and reproducibility for a standard test method by inter-laboratory tests	2850	Chemical analysis—Interlaboratory test programs—For determining precision of analytical method(s)—Guide to the planning and conduct

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