

JIS

JAPANESE INDUSTRIAL STANDARD

**Method for X-ray Fluorescence
Spectrometric Analysis
of Zirconium Alloys**

JIS H 1669—1990

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Method for X-ray Fluorescence
Spectrometric Analysis of
Zirconium Alloys

H 1669-1990

1. Scope

This Japanese Industrial Standard specifies the method for X-ray fluorescence spectrometric analysis of ingot-shaped or plate-shaped zirconium alloys. This standard conforms to iron, nickel, chromium, tin, and niobium.

2. General Matters

The general matters related to the analysis method shall be as specified in JIS H 1650 and JIS K 0119.

3. Limit of Determination

The limit of determination shall be as specified in Table 1.

Table 1. Limited Range of Determination

Element	Limit of determination wt %
Iron	0.05 or over to and excl. 0.3
Nickel	0.005 or over to and excl. 0.1
Chromium	0.02 or over to and excl. 0.2
Tin	0.02 or over to and excl. 3
Niobium	0.1 or over to and excl. 5

4. Summary

Radiate primary X-ray onto the sample to excite element atoms, separate the generated X-ray fluorescence into spectral components, introduce them through the crystal for spectral separation into the detector, and thereby measure the strength of the X-ray fluorescence.

5. Apparatus

5.1 Construction of Apparatus Conform to the prescription of 4.1 in JIS K 0119.

5.2 Outline of Apparatus Conform to the prescription of 4.2 (1) in JIS K 0119.

5.3 X-ray Generator Conform to the prescription of 4.3 (1) in JIS K 0119.

Applicable Standards and Reference Standard: See page 4.