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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21933.2-2008

**Ferronickel -- Determination of silicon content -- Gravimetric
method**

(English Translation)

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Foreword

This Part of GB/T 21933 modifies and adopts ISO 8343:1985 "Ferronickel - Determination of silicon content - Gravimetric method".

Compared with ISO 8343:1985, the main technical differences in this Part are as follows:

- a) Delete 7.1.3;
- b) CHANGE "silicon content is 0.25%~1%..." in 7.1.2 to "silicon content is 0.20%~1%...";
- c) CHANGE "to the nearest 0.001 g" in 7.1.1 and "to the nearest 0.002 g" in

7.1.2 TO "to the nearest 0.0001 g";

- d) CORRECT the conversion factor "0.467" in the 8.1 calculation formula to "0.4674";
- e) Adopt national standards as normative references.

This Part was proposed by China Iron and Steel Association.

This Part shall be under the jurisdiction of China Metallurgical Information and Standardization Institute.

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Ferronickel - Determination of silicon content -

Gravimetric method

WARNING: The personnel using this Part shall have practical experience in regular laboratory work. This Part does not point out all possible safety problems. It is the responsibility of the user to take appropriate safety and health measures and to ensure compliance with the conditions stipulated by relevant national regulations.

1 Scope

This Part of GB/T 21933 specifies the gravimetric method for the determination of silicon content in ferronickel.

This Part applies to the determination of silicon content in ferronickel. The determination range (mass fraction): 0.2%~4.0%.

2 Normative references

The following documents contain provisions which, through reference in this Part of GB/T 21933, constitute provisions of this Part. For the dated references, their subsequent amendments (excluding corrections) or revisions do not apply to this Part. However, the parties who enter into agreement based on this Part are encouraged to investigate whether the latest editions of these documents are applicable. For undated reference documents, the latest editions apply to this Part.

GB/T 6379.1 Accuracy (trueness and precision) of measurement methods and results - Part 1: General principles and definitions (GB/T 6379.1-2004, ISO 5725-1:1994, IDT)

GB/T 6379.2 Accuracy (trueness and precision) of measurement methods and results - Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method (GB/T 6379.2-2004, ISO

5725-2:1994, IDT)

3 Principle

Dissolution of a test portion in nitric acid. Add perchloric acid to evaporate and smoke to dehydrate silicic acid to produce insoluble silica. Filter and weigh the

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