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ICS 77.100
CCS H11

YB

INDUSTRY STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

YB/T 4801-2020

Ferromanganese, manganese-silicon alloy and metal manganese Determination of lead, arsenic, titanium, copper, nickel, calcium, magnesium, aluminum content by inductively coupled plasma atomic emission spectrometry

锰铁、锰硅合金和金属锰 铅、砷、钛、铜、镍、钙、镁、铝含量的测定 电感耦合等离子体原子发射光谱法

(English Translation)

Implemented on: October 1, 2020

Issued by: Ministry of Industry and Information Technology

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1 Foreword

YB/T 4801-2020 was issued by Ministry of Industry and Information Technology on 16 April 2020 and has been in force since 1 October 2020.

Warning: Users of this standard shall have practical work experience in standardized laboratories. This part does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health measures and to ensure compliance with any national regulatory conditions.

The YB/T prefix marks a recommended standard. It is not law in itself: it becomes binding when a contract names it, when a regulation or a mandatory standard refers to it, or when a producer declares conformity with it.

2 Scope Preview

This standard specifies the determination of lead, arsenic, titanium, copper, nickel, calcium, magnesium and aluminum content by inductively coupled plasma atomic emission spectrometric method. This standard is applicable to the determination of lead, arsenic, titanium, copper, nickel, calcium, magnesium and aluminum content in ferromanganese, ferromanganese-silicon and manganese metal. See Table 1 for the determination range. Table 1 Determination range and recommended analytical lines of each element Type Content/% Recommended analytical line/nm Type Content/% Recommended analytical line/nm Lead 0.0080~0.1200 220.353 Nickel 0.0030~0.2500 231.604 Arsenic 0.0040~0.1200 197.262 Calcium 0.0080~0.2000 393.366 or 317.933 Titanium

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0.0010~0.3500 336.121 Magnesium 0.0080~0.5000 279.553 Copper 0.0080~0.2500 324.754 Aluminum 0.0080~0.3500 396.152

YB/T 4801-2020 falls under ICS 77.100, in the field of metallurgy.

This catalogue holds 971 other YB/T standards in that field.

In this catalogue, YB/T standards carry edition years from 1980 to 2026.

3 Normative references

GB/T 4010 - Ferroallys sampling and preparation of samples for chemical analysis

GB/T 6379.1 - Accuracy (trueness and precision) of measurement methods and results - Part 1: General principles and definitions

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 6682 - Water for analytical laboratory use - Specification and test methods

GB/T 8170 - Rules of rounding off for numerical values & expression and judgement of limiting values

GB/T 28372 - Ferroalloys - Sampling and preparation of samples - General rules

GB/T 36244 - Inductively coupled plasma optical emission spectrometer

JJG 768 - Verification regulation of emission spectrometer

4 About this standard

Sector: Ferrous Metallurgy Industry Standard (Recommended)

Issued by: Ministry of Industry and Information Technology

English translation: about 11 pages (approximate)

Chinese original: about 17,166 characters

5 Related standards

Standards on related subjects:

GB/T 5686.2-2022 - Ferromanganese, ferromanganese-silicon, nitrogen-bearing ferromanganese and manganese metal-Determination of silicon content-Molybdenum blue spectrophotometric method, silicon potassium fluoride titrimetric method and perchloric acid dehydration gravimetric method

GB/T 4336-2016 - Carbon and low-alloy steel-Determination of multi-element

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contents-Spark discharge atomic emission spectrometric method (routine method)

GB/T 4701.1-2009 - Ferrotitanium - Determination of titanium content - The ammonium ferric sulfate titration method

YB/T 4582.11-2026 - Ferrosilicon nitride - Determination of nitrogen content - Thermal conductimetric method after fusion in a current of inert gas

YB/T 4220-2026 - Vanadium pentoxide - Determination of sodium oxide and potaiumss oxide content - The inductively coupled plasmaatomic emission spectrometry

YB/T 4799-2018 - Iron and steel. Determination of aluminium nitride precipitated phase content. Inductively coupled plasma atomic emission spectrometic method after electrolytic separation

6 Classification and status

International classification (ICS): 77.100

Chinese Standard Classification (CCS): H 11

Prefix YB/T: recommended standard.

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