NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB/T 6730.63-2024

Iron ores - Determination of aluminum, calcium, magnesium, manganese, phosphorus, silicon and titanium content - Inductively coupled plasma atomic emission spectrometric method

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1 Scope

This document specifies the determination of aluminum, calcium, magnesium, manganese, phosphorus, silicon, titanium content by inductively coupled plasma emission spectrometry.

2 Normative references

The contents of the following documents constitute the essential terms of this document through normative references in the text. Among them, for dated references, only the version corresponding to that date applies to this document; for undated references, the

5.5 Hydrochloric acid, 1 + 1.

The calibration solution is the solution required for drawing the calibration curve of the analyzed elements. Its concentration range in the solution is expressed in micrograms per milliliter, which depends on the performance parameters and linear sensitivity of the

instrument. At least 10 solutions are required to cover the measurement range (mass fraction) shown in Table 1.

8.4 Determination The ICP spectrometer shall first be initially adjusted, according to the manufacturer's recommendations and laboratory quantitative analysis operations.

Try to optimize the instrument parameters in each round as much as possible.

9.3 Standardization of calibration curve (drift correction)

The regular inspection and correction of the calibration curve shall be carried out as follows.

Take two calibration solutions, namely the one with the lowest and highest analyte content.

In the drawn calibration curve, the intensities of the two calibration solutions are measured; the correction coefficients alpha and beta are calculated according to formulas (4)

and (5).