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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 313

METHODS OF CHEMICAL ANALYSIS OF MANGANESE ORES

DETERMINATION OF TOTAL IRON CONTENT

1st EDITION

July 1963

To be withdrawn!

IPG

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BRIEF HISTORY

The ISO Recommendation R 313, *Methods of Chemical Analysis of Manganese Ores—Determination of Total Iron Content*, was drawn up by Technical Committee ISO/TC 65, *Manganese Ores*, the Secretariat of which is held by the Komitet Standartov, Mer i Izmeritel'nyh Priborov pri Sovete Ministrov SSSR.

Work on this question by the Technical Committee began in 1954 and led, in 1957, to the adoption of a Draft ISO Recommendation.

In October 1958, this Draft ISO Recommendation (No. 246) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

Austria	Germany	Poland
Bulgaria	Hungary	Portugal
Burma	India	Republic of South Africa
Chile	Ireland	Romania
Czechoslovakia	Italy	Spain
Finland	Japan	United Kingdom
France	Netherlands	U.S.S.R.

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in July 1963, to accept it as an ISO RECOMMENDATION.

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ISO Recommendation R 313 July 1963

METHODS OF CHEMICAL ANALYSIS OF MANGANESE ORES

DETERMINATION OF TOTAL IRON CONTENT

(Atomic mass Fe : 55.85 ; molecular mass FeO : 71.85 ; molecular mass Fe_2O_3 : 159.70)

This ISO Recommendation contains three parts:

I. Introduction . . . . . section 1,

II. Dichromate method, first variant . . . . . sections 2 to 5,

III. Dichromate method, second variant, for ores containing copper, lead and arsenic . . . . . sections 6 to 9.

I. INTRODUCTION

1. GENERAL INSTRUCTIONS

1.1 In the following analysis, use a sample for chemical analysis of air-dried manganese ore, which has been crushed to a size not exceeding 0.10 mm and checked on a sieve of appropriate size.

Simultaneously with the collection of samples for the determination of total iron, take three more test samples for the determination of hygroscopic moisture.

Calculate the content of total iron in ore which is absolutely dry by multiplying the numerical results of the determination of iron by the conversion factor K, as found from the following formula:

$$K = \frac{100}{100 - A}$$

where A = hygroscopic moisture content, per cent.

1.2 The determination of total iron in manganese ore is carried out by simultaneously analysing three samples of ore, with two blank determinations to enable a corresponding correction in the result of the determination to be made.

Simultaneously and under the same conditions, carry out a check analysis of a standard sample of manganese ore, for total iron content.

The arithmetical mean of the three results is accepted as the final result.

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