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

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**Microbeam analysis -- Selected instrumental performance parameters
for the specification and checking of energy dispersive X-ray
spectrometers for use in electron probe microanalysis**

微束分析 电子探针显微分析X射线能谱仪主要性能参数及核查方法

(English Translation)

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Table of Contents

Foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Requirements	8
5 Check of further performance parameters	10
energy resolution of the spectrometer	11
dependence of the instrumental detection efficiency	16
Bibliography	19

1 Scope

This Standard defines the most important quantities that characterize an energy-dispersive X-ray spectrometer consisting of a semiconductor detector, a pre-amplifier and a signal-processing unit as the essential parts. This

Standard is only applicable to spectrometers with semiconductor detectors operating on the principle of solid-state ionization. This Standard specifies minimum requirements and how relevant instrumental performance parameters are to be checked for such spectrometers attached to a scanning electron microscope (SEM) or an electron probe microanalyser (EPMA). The procedure used for the actual analysis is outlined in ISO 22309[2] and ASTM E1508[3] and is outside the scope of this Standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 23833 Microbeam analysis - Electron probe microanalysis (EPMA) -

Vocabulary

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in ISO 23833 and the following apply.

NOTE With the exception of 3.1, 3.2, 3.2.1, 3.2.2, 3.11, 3.12 and 3.13, these definitions are given in the same or analogous form in ISO 22309[2], ISO 18115-1[4] and ISO 23833.