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CCS N53



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

GB/T 17506-2008

Replacing GB/T 17506-1998

**The analysis method of corrosive layer on ferrous metals of
ship with EPMA**

船舶黑色金属腐蚀层的电子探针分析方法

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Foreword

This standard replaces GB/T 17506-1998 "electron microprobe analysis method of marine corrosion of ferrous metal layer." This standard 17506-1998 major changes compared to GB/T as follows:

- The scope of application has been redefined;
- Normative references, terms and definitions have been modified;
- Add data to rounding;
- Detailed analysis of the process has been modified and supplemented, increased the transition layer surface corrosion morphology of content;
- The introduction of this standard automatic quantitative elemental analysis;
- The content analysis report complements. Appendix A of this standard is an informative annex. The standard proposed by China Shipbuilding Industry Corporation. This standard by the National Standardization Technical Committee microbeam analysis. This standard was drafted. China Shipbuilding Industry Corporation seventh twenty-five Institute. The main drafters of this standard. ZHANG Yong-hui, Wang Chunfen, Zhang Haifeng, according to Xu, Gao Ling Qing. This standard replaces the standards previously issued as follows:
- GB/T 17506-1998. Ship black metal corrosion layer Electron microprobe analysis method

1 Scope

GB/T 17506-2008 is the Chinese national standard on the analysis method of corrosive layer on ferrous metals of ship with epma, in the field of chemical technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 16 June 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 March 2009. Classification: ICS 71.040.99, CCS N53. This page is published from the official

record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the sample preparation electron probe ship ferrous metal MARINE ENVIRONMENT layer analysis, selection standards, the measuring step And analysis conditions and results of the analysis process. This standard applies to the marine environment, a ship under analysis ferrous metal corrosion bulk sample. Ferrous metal materials other corrosive environments Electron microprobe analysis layer can be implemented by reference.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 4930 micro-beam electron microprobe analysis standard sample analysis the technical conditions Guidelines (GB/T 4930-2008, ISO 14593. 2003, IDT)

GB/T 8170 numerical rounding rules

GB/T 15074 method of quantitative electron probe microanalysis General

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 With a given substance and the metal-metal contact corrosion to occur.

3.2 Corrosion products having adequate adhesion and can be polished specimen.

3.3 Product and corrosion of metal occurs region after the formation of corrosion. Generally it consists of surface corrosion, corrosion lining, corrosion transition layer.

3.4 Corroded metal layer in contact with corrosive media.

3.5 Corrosion product layer of metal corrosion and corrosive media and corrosion are formed.

3.6 Transition zone and corrode the inner layer unetched substrate.