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

GB/T 17361-2013

Replacing GB/T 17361-1998

**Microbeam analysis - Identification of authigenic clay mineral in
sedimentary rock menthod by scanning electron microscope
and energy dispersive spectrometer**

微束分析 沉积岩中自生粘土矿物鉴定 扫描电子显微镜及能谱仪方法

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 17361-1998 "sedimentary authigenic clay minerals scanning electron microscopy and X-ray spectrometer to identify parties law". This standard compared with GB/T 17361-1998, the main changes as follows:

- Standard name from "" sedimentary authigenic clay minerals scanning electron microscopy and X-ray spectrometer to identify the method "" to "" micro Beam analysis sedimentary authigenic clay minerals identified by scanning electron microscopy and energy dispersive spectroscopy method "";
- Modify the scope of application (see Chapter 1);
- Remove the electron probe reference standard (see Chapter 2, 1998 edition), an increase of sample preparation and publishing the results of reference standard (see para. Chapter 2);
- Removed some equipment (see Chapter 4, 1998 edition);
- Modify the coating requirements (see 5.7);
- Remove the standard standard (see Chapter 6, 1998 edition);
- Choose a location analysis modified clay mineral crystals (see 8.2);
- Modify the results of the analysis to determine the basis (see 8.3);
- Modify the contents of the report of the results of the analysis (see Chapter 10);
- Modify the measurement results of the elemental composition (see 10.3);
- Modify the identification name of the clay mineral (see 10.4);
- Removed using standard instructions (see 1998 Version 11.5);

--- Modify the title of Table A.1. The Standard Appendix A, Appendix B is an informative annex. The standard micro-beam analysis by the National Standardization Technical Committee (SAC/TC38) and focal points. This standard was drafted. China Petroleum Exploration and Development Research Institute, China Research Institute of Petroleum Exploration and Development, Xinjiang Oilfield, China Huabei oil Field Exploration and Development Research Institute, Chinese Sinopec Shengli Oilfield Exploration and Development Institute. The main drafters of this standard. Zhu Desheng, and Wei Po, Zhou Wenzhong Bao, New Year Liu, Zhang Bingshun, Weiguang Zhen. This standard replaces the standards previously issued as follows:

1 Scope

GB/T 17361-2013 is the Chinese national standard on microbeam analysis - identification of authigenic clay mineral in sedimentary rock method by scanning electron microscope and energy dispersive spectrometer, 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 19 July 2013 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 2014. Classification: ICS 71.040.40, CCS G04. 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 scanning electron microscopy and energy dispersive spectroscopy authigenic clay minerals in sedimentary rock crystal morphology and chemical composition were identified Methods. This standard is mainly used for clay mineral identification analysis of oil and gas sedimentary common self. Other authigenic clay mineral identification analysis May refer to.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 27025 testing and calibration laboratories General requirements SY/T 5118 Determination of chloroform bitumen rocks fat stripping gas law JJG550 scanning electron microscope pilot test procedures

3 Identification of principle

Authigenic clay mineral identification principle is secondary electron image by a scanning electron microscope, backscattered electron image analysis of clay minerals form
Characterized to determine its type. For morphological characteristics similar to the results of the analysis of clay minerals to be difficult to distinguish between the use of the composition as a secondary energy dispersive spectroscopy Identification of means to help.

4.1 Equipment

4.1.1 Scanning electron microscope.

4.1.2 spectrometer.

4.1.3 vacuum coating apparatus.

4.2 Material

4.2.1 Coating special carbide or carbon fibers.

4.2.2 gold target (99.99% purity).

4.2.3 conductive adhesive.

4.2.4 double-sided tape.

4.2.6 chloroform (AR).