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

GB/T 27761-2011

**Standard test method of mass loss and residue measurement
validation of thermogravimetric analyzers**

热重分析仪失重和剩余量的试验方法

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard and ASTM E2402-2005 "TGA weight loss and the remaining amount of test methods" (in English) Basic technical content Consistent.

This standard ASTM E2402-2005 comparison, the main modifications are as follows.

- Redefined the remaining amount of the term;
- The original text symbols M0 12.6 is amended as X_{max}, and the maximum weight loss is interpreted as a standard substance known volatiles weightlessness Value, quality fraction representation;
- The Chapter 12 12.9 Example of calculation portion from the body moved to Appendix A (informative);
- Annex B (informative) lists the number of the standard clauses and clauses ASTM E2402-2005 a control number Lanbiao.

This standard was proposed by the Chinese Academy of Sciences.

This standard by the National Standardization Technical Committee of nano technology (SAC/TC279) centralized.

1 Scope

This standard specifies the weightlessness and to confirm the remaining amount of the program by thermal gravimetric analysis (TGA), and established based on the weight loss and the remaining amount of test Analysis of the test.

This standard applies to confirm TGA performance parameters, including weight loss and the remaining amount of the repeatability (precision), detection limit, quantification limit, line Sexual deviations, technical specifications and regulatory compliance.

This standard does not include associated with its use of all the security issues. Before using this standard method, users are responsible for establishing appropriate Safety and health standards, specifications and confirm applicability.

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 6425 Thermal Analysis term ASTM E177 use (Standard practice for use of the term precision and bias in the ASTM test method terms precision and bias in ASTM test methods) ASTM E473 Thermal Analysis Standard Terminology (Standard terminology relating to thermal analysis and rheology) ASTM E1142 Standard Terms and thermo-physical properties related (Standard terminology relating to thermophysical properties) Standard Specification ASTM E1582 thermogravimetric analysis temperature calibration (Standard practice for calibration of temperature scale for thermogravimetry) ASTM E1970 thermal analysis standards (Standard practice for statistical treatment of statistical data processing thermoanalytical data) Standard Test Method for ASTM E2040 TGA mass calibration (Standard test method for mass scale calibration of thermogravimetric analyzers) ASTM E2161 thermal analysis verification standard terminology related (Standard terminology relating to performance and performance acceptance validation in thermal analysis)

3 Terms and Definitions

GB/T 6425, ASTM E473, ASTM E177, ASTM E1142 and ASTM E2161 defined in the following terms and definitions apply to this document. For ease of use, repeat the following list of some of the terms and definitions.

TGA thermogravimetric analysis (TGA) Under the program temperature and a certain atmosphere, measuring the technical quality and temperature or the time of the sample.