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

GB/T 22461.1-2023

**Surface chemical analysis - Vocabulary - Part 1: General terms
and terms used in spectroscopy**

表面化学分析 词汇 第1部分：通用术语及谱学术语

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. This document is Part 1 of GB/T 22461 "Glossary of Surface Chemical Analysis". GB/T 22461 has published the following parts.

1. General terms and spectroscopic terms;

2. Scanning probe microscopy terminology. This document replaces GB/T 22461-2008 "Surface Chemical Analysis Vocabulary". Compared with GB/T 22461-2008, except for structural adjustments In addition to editorial changes, the main technical changes are as follows:

---Changed the definitions or annotations of 45 terms, see NA.1 of Appendix NA;

---Added 9 terms to Chapter 5 "Terms and Definitions of Surface Analysis Methods", see NA.2(1~9) for details;

---171 terms have been added to Chapter 6 "Surface Analysis Terms and Definitions", see NA.2 (10~180) for details;

---Added Chapter 7 "Terms and Definitions of Multivariate Analysis", Chapter 8 "Supplementary Terms and Definitions of Surface Analysis Methods", Chapter 9 "Surface Additional terms and definitions for analysis" and Chapter 10 "Additional terms and definitions for multivariate analysis", these 4 chapters have a total of 83 new terms and definitions. Article, see NA.2 (181~263). This document is equivalent to ISO 18115.2013

"Glossary of Surface Chemical Analysis Part

1.General Terms and Spectroscopy Terminology". This document adds a chapter "Normative References". Compared with ISO 18115.2013, this document has made the following structural adjustments.

---Chapter 1 corresponds to Chapter 0 of ISO 18115.2013;

---Chapter 3 ~ Chapter 10 respectively correspond to Chapter 1 ~ Chapter 8 of ISO 18115.2013. This document has made the following minimal editorial changes.

---Added two explanatory clauses "Chinese terminology of analytical methods" (4.4) and "English equivalents" (4.5);

---Added Appendix NA (informative);

---Index added. Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed and coordinated by the National Microbeam Analysis Standardization Technical Committee (SAC/TC38). This document was drafted by: Beijing Normal University, Sinopec Petrochemical Research Institute Co., Ltd., Peking University, China Institute of Metrology Institute of Technology, Tsinghua University. The main drafters of this document. Wu Zhenglong, Qiu Limei, Xie Jinglin, Wang Hai, Yao Wenqing, and Li Zhanping. The previous versions of this document and the documents it replaces are as follows:

1 Scope

GB/T 22461.1-2023 is Part 1 of the Chinese vocabulary of surface chemical analysis, covering the general terms and those of spectroscopy. Surface analysis - XPS, Auger, SIMS and the rest - produces numbers that are only meaningful with their conditions attached, and the field has an unusually large body of terms that look ordinary and are not: escape depth, information depth, sampling depth and analysis depth all mean different things, and using one for another changes the interpretation of a result. The standard sets the format of the entries and then the terms and definitions for the surface analysis methods, for surface analysis itself, and for multivariate analysis, each followed by a set of supplementary terms, with an informative annex listing the technical changes against GB/T 22461-2008. It took effect on 1 March 2024.

This document defines general terminology in surface chemical analysis and terminology in the field of spectroscopy. Appendix A provides some general terms for non-surface analysis specialties. Commonly used terms.

2 Normative reference documents

This document has no normative references.

3 Abbreviations

The following abbreviations apply to this document. AC alternating current (alternatingcurrent) DC direct current (directcurrent) eV electronvolts

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