

ICS 71.100.20

CCS G 86



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

GB/T 14850-2020

Gas analysis - Vocabulary

Issued on: March 31, 2020

Implemented on: February 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms related to general concepts

Foreword

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

This standard replaces GB/T 14850-2008 "Gas Analysis Vocabulary", compared with GB/T 14850-2008, except for editorial changes

The main technical changes are as follows.

- Modified the scope (see Chapter 1, Chapter 1 of the.2008 edition);
- Added "normative references" (see Chapter 2);
- Modify the chapter title "General Concepts" to "Terms Related to General Concepts" (see Chapter 3, Chapter 2 of the.2008 edition);
- Delete "Gas Sample", "Gas Analysis", "Gas Measurement", "Mixed Gas", "Component Content" and "Score" (see 2.1 in the.2008 edition)
2.2, 2.3, 2.4, 2.7.1, 2.7.1.1);
- Increase "stability" "content" (see 3.2, 3.4);
- Modify the chapter title "Physical Properties and Laws" to "Terms Related to Physical Properties" (see Chapter 4, Section 3 of the.2008 edition)
chapter);
- Delete "Amag's Law" and "Dalton's Law" (see 3.6.1 and 3.6.2 in the.2008 edition);
- Increase "bubble point" "critical condensate pressure" "critical condensate temperature" (see 4.7, 4.9, 4.10);
- Modify the chapter title "calibration gas" to "terms related to calibration gas" (see Chapter 5, Chapter 4 of the.2008 edition);
- Delete "calibration mixture", "primary reference mixture", "secondary reference mixture", "calibration components" and "uncertain components" (see.2008
(Versions 4.1, 4.1.1.1, 4.1.1.2, 4.2, 4.4);

--- Increase "calibration mixed gas" "raw gas" "key impurities" "important impurities" (see 5.1, 5.3, 5.5.1, 5.5.2);

--- Modify the chapter title "Preparation method of mixed gas" to "Terms related to preparation method of mixed gas" (see Chapter 6,.2008)

Chapter 5 of the edition);

--- Delete "saturation method", "infiltration method" and "diffusion method" (see 5.5, 5.6, 5.7 of the.2008 edition);

--- Modify the chapter title "Terms related to stability" to "Terms related to the storage of gas cylinders" (see Chapter 7, Chapter 6 of the.2008 edition)

chapter);

--- Delete "stability", "adsorption", "absorption", "desorption" and "chemical reaction" (see 6.1, 6.2, 6.2.1, 6.3, 6.4 of the.2008 edition);

--- Modify "Maximum filling pressure" to "Maximum filling pressure" (see 7.1, 6.5.1 of the.2008 edition);

--- Delete "Carrier Gas", "Purge Time", "Sampling Technology", "Sampling Pipeline", "Transport Pipeline", "Resolution", "Sensitivity", "Detection Threshold Value"

Volume threshold "" calibration cycle "(see the 7.2.3, 7.2.4, 7.2.5, 7.2.6.1, 7.2.6.2, 7.3.1.2, 7.3.1.3,.2008 version

7.3.1.4.1, 7.3.1.4.2, 7.4.5);

--- Add "quantity limit", "analysis function", "calibration point", "exact matching calibration", "blank two-point calibration" (see 8.3.3, 8.4.2, 8.4.3,

8.5.4, 8.5.5);

--- Amend "metering term" to "metering terminology" (see Chapter 9, Chapter 8 of the.2008 edition);

--- Delete "Measurement accuracy" "Repeatability" "Reproducibility" "Measurement uncertainty" "Standard uncertainty" "Synthetic standard uncertainty"

"Extended uncertainty", "Containment factor", "Traceability", "Measurement standard", "Standard sample", "Reference standard", "Original standard", "Secondary standard

"" (See the.2008 editions of 8.1, 8.2, 8.3, 8.6, 8.6.1, 8.6.1.1, 8.6.1.2, 8.6.1.3, 8.7, 8.8, 8.8.1, 8.8.2, 8.8.2.1,

8.8.2.2);

--- Add "certified standard sample/standard substance" "composition verification" (see 9.1, 9.3);

--- Add the list of terms defined in ISO /IEC Guide98-3 and ISO /IEC Guide99 (see Appendix A);

--- Directly quote some sampling related terms in ISO 10715 and list them in the appendix (see Appendix B).

This standard uses the translation method equivalent to ISO 7504..2015 "Gas Analysis Vocabulary".

The documents in China that have a consistent correspondence with the normatively cited international documents in this standard are as follows.

--- GB/T 13609-2017 natural gas sampling guidelines (ISO 10715..1997, MOD);

--- GB/T 27418-2017 Evaluation and representation of measurement uncertainty (ISO /IEC Guide98-3..2008, MOD).

This standard has made the following editorial changes.

--- Deleted footnote 1 in the reference;

--- Added Chinese Pinyin Index.

This standard was proposed by the China Petroleum and Chemical Industry Federation.

This standard is under the jurisdiction of the National Gas Standardization Technical Committee (SAC/TC206).

This standard was drafted by. Southwest Chemical Research and Design Institute Co., Ltd., Institute of Chemistry, China Institute of Test Technology, Guangdong Huate Gas

Co., Ltd., Tianjin Lianbo Chemical Co., Ltd., China Testing and Certification Group Co., Ltd., Zhejiang Chemical Research Institute Co., Ltd.

Company, Henan Provincial Institute of Metrology, Hangzhou Hangzhou Oxygen Co., Ltd., Beijing Huayun Analytical Instrument Institute Co., Ltd., Dalian Dat

Gas Co., Ltd., Shenzhen Power Supply Bureau Co., Ltd., Shanghai Huaai Chromatography Technology Co., Ltd., Xi'an Dingyan Technology Co., Ltd., Lake

North China Institute of Standardization and Quality, Sichuan Tianyi Technology Co., Ltd. Wuhan Gas Supply Branch.

1 Scope

This standard defines the terms related to gas analysis, mainly focusing on the calibration mixed gas phase used in gas analysis and gas measurement

Related terms. Terms that are only relevant to specific applications are not included.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article

Pieces. For the cited documents without date, the latest version (including all amendments) applies to this document.

ISO /IEC Guide98-3..2008 Uncertainty of measurement Part 3. Guide for the representation of uncertainty of measurement

measurement-Part 3. Guidetotheexpressionofuncertaintyinmeasurement (GUM..1995)]

ISO /IEC Guide99..2007 International Metrology Vocabulary Basic General Metrology Terms and Definition Technical Regulations

cabularyofmetrology-Basicandgeneralconceptsandassociatedterms (VIM)]

ISO 10715..1997 Natural Gas Sampling Guidelines

3 Terms related to general concepts

Terms used in the field of gas analysis defined by ISO /IEC Guide98-3 or ISO /IEC Guide99 are listed in Appendix A.

3.1

Homogeneity

The state in which all components (3.3) of the mixed gas are uniformly distributed in the space occupied by them.

3.2

Stability

Under the specified conditions, the composition of the mixed gas (3.5) is within the specified time range [maximum storage period (7.5) (see Appendix A)].

Attributes that are within the specified uncertainty limits.

3.3

Component

A chemical substance that exists in a simple substance or mixture in a specified physical state.

3.4

Content