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PEOPLE'S REPUBLIC OF CHINA

GB/T 18403.6-2013

Expression of performance of gas analyzers -- Part 6: Photometric analyzers

气体分析器性能表示 第6部分：光度分析器

(English Translation)

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Foreword

GB/T 18403 "performance of gas analyzers" have or plan to release the following sections.

--- Part 1. General;

--- Part 2. Oxygen in gas (high-temperature electrochemical sensors);

--- Part 3. paramagnetic oxygen analyzer;

--- Part 6. Photometric analyzers.

This section GB/T 18403 Part 6.

This section drafted in accordance with the rules of GB/T 1.1-2009 and GB/T 20000.2-2009 given.

This section uses the translation method is equivalent to using IEC 61207-6:1994 "performance of gas analyzers - Part 6. Photometric Analyzer." Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 17214 (all parts) industrial process measurement and control equipment - Operating conditions [IEC 60654 (all parts)]

--- GB/T 18403.1-2001 performance of gas analyzers - Part 1. General (eqv IEC 61207-1:1994)

--- GB/T 19001-2008 quality management system requirements (ISO 9001:2008, IDT) Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee (SAC/TC124) is administered by the National industrial processes.

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This section drafted by. China Instrument Industry Association, Foshan Analyzer Ltd., Sichuan-Chongqing Analytical Instruments Co., Ltd., Beijing Institute of Metrology detection, Shanghai Institute of Measurement and Testing, FPI (Hangzhou) Co., Ltd., Beijing Analytical Instrument Institute.

Introduction

Photometric analyzer using UV detector for different wavelengths of the electromagnetic spectrum (180nm ~ 20μm), the visible and infrared light response Detecting instrument. Within these wavelength ranges having a plurality of gas absorption/emission spectrum. Using these spectral analyzer designed to be Using a variety of techniques, including absorption and stimulated emission spectra, and the intensity of the radiation/response wavelength conversion. The volume of gas to be measured can Sample cell is controlled by the sample gas can be treated or not, can directly measure its concentration in the sample gas.

Performance of gas analyzers Part 6. Photometric Analyzer

1 Scope

GB/T 18403 in this section apply to the use of spectrophotometric techniques to measure various types of mixed gas of one or more components or vapor concentrations Type of analyzer. This portion of the GB/T 18403.1-2001 combination.

This section applies to the use of the analyzer and the use of the non-dispersive and dispersive wavelength selection absorption spectra, emission spectra or wavelength conversion technique Analyzer.

This section applies to all types of measuring gas sample analyzer, whether or not sample gas, sample gas or in a vacuum, atmospheric and pressurized Article Member under can.

This section applies to directly measure the gas concentration in the sample gas in all types of analyzer.

The purpose of this section is.

--- Provisions photometric technology utilizing continuous measurement air supply terms and definitions gas or vapor concentration in the gas analyzer functional properties;

--- Unified class analyzer features and verification methods;

--- Specifies the test content and test methods for determination of functional characteristics should be carried out;

--- Provide basic document for the ISO 9001, ISO 9002 and ISO 9003 quality management standard applications.

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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.

IEC 61207-1:1994 performance of gas analyzers - Part 1. General (Expressionofperformanceofgasan-alyzers-Part 1. General) IEC 60654 (all parts) industrial process measurement and control equipment - Operating conditions (Industrial-processmeasurementand controlequipment-Operatingconditions) ISO 9001 quality management system requirements (Qualitymanagementsystems-Requirements) Quality assurance model ISO 9002 quality system of production, installation and service (Qualitysystems-Modelforqualityas-suranceinproduction, instalationandservicing) ISO 9003 quality system for final inspection and test quality assurance model (Qualitysystems-Modelforqualityas-suranceinfinalinspectionandtest)

3 Terms and Definitions

Figure A.1 and A.2 shows the relationship between the various types of analyzers.

Infrared analyzer A photoelectric instrument. It includes single or dual infrared light infrared light source and one or more of an infrared detector. This detector by measuring Determination of specific components of the optical path to be measured characteristic absorption spectrum.

Note 1: This section applies to the manufacturer to adjust the analyzer to select only the components measured spectral region characteristic absorption spectra measured length of the channel should be applied to points

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