ICS 81.060.30 SLOVENSKÁ TECHNICKÁ NORMA Február 2023

STN	**Jemná keramika (špeciálna keramika, špeciálna technická keramika) Metódy chemickej analýzy práškov titaničitanu bárnatého s vysokou čistotou (ISO 21813: 2019)**	**STN EN ISO 21813** 72 7515

Fine ceramics (advanced ceramics, advanced technical ceramics) - Methods for chemical analysis of high purity barium titanate powders (ISO 21813:2019)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/23

Obsahuje: EN ISO 21813:2022, ISO 21813:2019

Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21813

November 2022

ICS 81.060.30 Supersedes EN 725-2:2007

English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Methods for chemical analysis of high purity barium titanate powders (ISO 21813:2019)

Céramiques techniques - Méthodes d'analyse chimique des poudres de titanate de baryum à haute pureté (ISO 21813:2019)

Hochleistungskeramik - Verfahren zur chemischen Analyse von hochreinen Bariumtitanatpulvern (ISO 21813:2019)

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Contents

Page

European foreword

The text of ISO 21813:2019 has been prepared by Technical Committee ISO/TC 206 "Fine ceramics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 21813:2022 by Technical Committee CEN/TC 184 "Advanced technical ceramics" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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The text of ISO 21813:2019 has been approved by CEN as EN ISO 21813:2022 without any modification.

INTERNATIONAL STANDARD

ISO 21813

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Fine ceramics (advanced ceramics, advanced technical ceramics) — Methods for chemical analysis of high purity barium titanate powders

Céramiques techniques — Méthodes d'analyse chimique des poudres de titanate de baryum à haute pureté

Reference number
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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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Contents

Page

Foreword

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This document was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

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INTERNATIONAL STANDARD **ISO 21813:2019(E)**

Fine ceramics (advanced ceramics, advanced technical ceramics) — Methods for chemical analysis of high purity barium titanate powders

1 Scope

This document specifies methods for the chemical analysis of fine high purity barium titanate powders used as the raw material for fine ceramics.

This document stipulates the determination methods of the barium, titanium, aluminium, cadmium, calcium, cobalt, dysprosium, iron, lead, magnesium, manganese, nickel, niobium, potassium, silicon, sodium, strontium, vanadium, zirconium, carbon, oxygen and nitrogen contents in high purity barium titanate powders. The barium and titanium contents, the major elements, are determined by using an acid decomposition-gravimetric method or an acid decomposition-inductively coupled plasma-optical emission spectrometry (ICP-OES) method. The aluminium, cadmium, calcium, chromium, cobalt, dysprosium, iron, lead, magnesium, manganese, nickel, niobium, potassium, silicon, strontium, vanadium and zirconium contents are simultaneously determined via an acid digestion-ICP-OES method. The nitrogen content is determined by using an inert gas fusion-thermal conductivity method, while that of oxygen is determined via an inert gas fusion-IR absorption spectrometry method. Finally, the carbon content is determined using a combustion-IR absorption spectrometry method or a combustion-conductometry method.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 6353-1, *Reagents for chemical analysis — Part 1: General test methods*

ISO 6353-2, *Reagents for chemical analysis — Part 2: Specifications — First series*

ISO 6353-3, *Reagents for chemical analysis — Part 3: Specifications — Second series*

ISO 8656-1, *Refractory products — Sampling of raw materials and unshaped products — Part 1: Sampling scheme*

