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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 2900.100-2017

Replacing GB/T 13811-2003

Electrotechnical terminology -- Superconductivity

Issued on: November 1, 2017 **Implemented on: May 1, 2018**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China

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Foreword

GB/T 2900 "Electrical Terms" consists of many parts.

This section GB/T 2900 part 100.

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

This Part replaces GB/T 13811-2003 "Electrotechnical terminology superconductivity" is in addition to GB/T 13811-2003 basis

And perfect. Compared with GB/T 13811-2003, the main technical change is to remove some of the less commonly used terms, add a few twenty terms

And the definition, most about manufacturing processes and magnetics.

This section uses the translation method identical with IEC 60050-815.2015 "International Electrotechnical Vocabulary Part 815. Superconductivity."

The terminology entry numbers in this section are consistent with IEC 60050-815.2015.

This part of the National Electrotechnical Terminology Standardization Technical Committee (SAC/TC232) proposed.

This part of the National Electrotechnical terminology standardization Technical Committee, the National Superconducting Standardization Technical Committee (SAC/TC265) common.

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1 Scope

This section GB/T 2900 specifies the terms and definitions used in the field of

superconducting technology.

This section applies to superconducting technology.

2.1 superconducting properties

815-10-01

Totally diamagnetic perfectdiamagnetism

The magnetization completely cancels the magnetic field so that the magnetic flux density is zero.

[Source .IEC 60050-121.1998, 121-12-39]

815-10-02

Superconductivity

Under certain conditions with DC resistivity of zero and completely diamagnetic properties of the material.

Note. "Conditions" refers to the appropriate temperature, magnetic field strength, strain and current density.

815-10-03

Superconductivity [of] (1), adjective superconducting, adj

Adjective describing a material or state that presents superconductivity.

Note. The term is also used to describe a device that contains superconductive components.

815-10-04

Superconductivity [of] (2), adjective superconductive, adj

Describe the adjectives of materials that can exhibit superconductivity under certain conditions.

Note 1. "Certain conditions" refers to the appropriate temperature, magnetic field strength, strain and current density.

Note 2. English "superconducting" and "superconductive" are the same adjective "supraconducteur" in French.

Note 3. The term is also used to describe a device that contains superconductive components.

815-10-05

Superconducting superconductingstate

The thermodynamic state in which the material assumes superconductivity.

Note 1. Superconducting states are caused by quantum matching of electrons (carriers).

Note 2. Superconducting states are the general term for the Meissner states, mixed states, and intermediate states of superconducting materials.

815-10-06

Superconductor

Materials that exhibit superconductivity under certain conditions.

Note 1. Generally refers to wire, block or film made of superconducting material.

Note 2. "Certain conditions" refers to the appropriate temperature, magnetic field strength, strain and current density.

[Source .IEC 60050-121.1998, December 12-07, amended]