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

GB/T 10067.410-2014

**Basic specifications for electroheat installations-Part 410:
Single crystal growing furnace**

电热装置基本技术条件 第410部分：单晶炉

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions

Foreword

GB/T 10067 "Basic electric device technical conditions" existing 19 sections.

- Part 1. Common part;
- Part 2. Arc heating device;
- Part 3. induction electric device;
- Part 31. IF coreless induction furnace;
- Part 32. voltage-frequency multi-station frequency coreless induction furnace complete sets of equipment;
- Part 33. frequency coreless induction melting Tonglu;
- Part 4. Indirect resistance furnaces;
- Part 41. network with resistance heating unit;
- Part 42. Push resistance heating unit;
- Part 43. Forced convection Pit resistance furnace;
- Part 44. Box-type resistance furnace;
- Part 45. vacuum hardening furnace;
- Part 46. Bell-type resistance furnace;

1 Scope

GB/T 10067.410-2014 is the Chinese national standard on basic specifications for electroheat installations-part 410: single crystal growing furnace, in the field of manufacturing engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 5 December 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and

has been in force since 16 April 2015. Classification: ICS 25.180.10, CCS K61. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This section GB/T 10067 specifies the terminology TDR crystal furnace, product classification, technical requirements, test methods, inspection rules And signs, packaging, transportation and storage. This section applies to straight La Fala made of semiconductor silicon and germanium single crystal single crystal furnace.

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.

GB 150-2011 Steel Pressure Vessels

GB/T 2900.23-2008 Electrotechnical terminology industrial electric equipment

GB 3095-2012 Ambient Air Quality Standard

GB 8702-1998 electromagnetic radiation protection

GB 8978-1996 Integrated Wastewater Discharge Standard

GB/T 10066.1-2004 Test methods for electroheat installations - Part 1. General section

GB/T 10066.4-2004 Test methods for electric equipment - Part 4. Indirect resistance furnaces

GB/T 10067.1-2005 basic technical conditions for electric devices - Part 1. General section

GB/T 10067.4-2005 Electric equipment basic technical conditions - Part 4. Indirect resistance furnaces

GB 12348-2008 industrial enterprises of environmental noise emission standard plant boundary

GB 16297-1996 Integrated Emission Standard of Air Pollutants

JB/T 9691-1999 Heating Equipment Model methodology

3 Terms and Definitions

GB/T 2900.23-2008, GB/T 10066.4-2004 and as defined in the following terms and definitions apply to this document.

3.1 Puller crystalgrowingfurnace An industrial electric use Czochralski (czochralskimethod)

or zone melting method (floatingzone) pulling a single crystal semiconductor material equipment.

3.2 Melting quantity charge Each time one of the largest furnace charging amount prescribed single crystal furnace design, not including the amount added during crystal pulling.

3.3 Czochralski czochralskimethod The most common method of growing the single crystal, i.e., the high-purity polycrystalline material placed in a crucible and heated to melt, pulling the seed is fixed in the shaft Crystal fused with the molten material, and then at a certain speed vertical pulling up the crystal will continue to grow in the lower end of the seed. Also known as the law cited,