CCS L97

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 15862-2012

Replacing GB/T 15862-1995

General specification of ion implantation equipment

离子注入机通用规范

Issued on: November 5, 2012 **Implemented on: February 15, 2013**

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

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 15862-1995 "ion implanter general technical conditions." This standard and GB/T 15862-1995 compared to the main changes are as follows:

--- GB n193-1983 replaced by the GB/T 13384-1992;

--- Increasing the term "implant angle" (see 3.6), "the largest wafer transfer efficiency" (see 3.7), and do the performance and test methods Appropriate requirements (see 6.4.6);

--- Ambient temperature was 23 °C ± 2 °C; relative humidity prescribed range of 30% to 50% (see 5.1.3);

--- Safety requirements in terms of increasing the "warning signs" (see 6.3.1);

--- Removed Tables 3 and 4;

--- Uniformity measurement increases heat wave conditions and methods of measuring probe (see 6.4.4.1b));

--- Repeatable measurements increased inter-assay reproducibility of the measurement method (see 6.4.5.2);

--- Inspection rules remove routine test items. The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China. The standard by the China Electronics Standardization Institute. This standard was drafted. China Electronics Technology Group Corporation 48th Research Institute. The main drafters of this standard. Guo Jianhui, Peng Libo, Luo Hong Yang. This standard replaces the standards previously issued as follows:

--- GB/T 15862-1995. General specification for ion implanter

1 Scope

GB/T 15862-2012 is the Chinese national standard on general specification of ion implantation equipment. 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 November 2012 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 15 February 2013. Classification: ICS (ICS) , CCS L97. 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 standard specifies the terms of the ion implanter, product classifications, technical requirements, testing, inspection rules and signs, packaging, transportation and storage. This standard applies to semiconductor process electric energy ion implanter. Other ion implanter may also refer to use.

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/T 191 Packaging - Pictorial signs

GB/T 4857.7-2005 Basic tests for transport packages - Part 7. fixed-frequency sinusoidal vibration test method

GB/T 5080.7-1986 Equipment reliability testing efficiency constant failure rate assumption under the MTBF of the verification test Inspection program

GB/T 6388-1986 transport package shipping mark

GB/T 13384-1992 mechanical and electrical products packaging General technical conditions

GB 18209.1 Safety of machinery - Indication, marking and actuation - Part 1. Requirements for visual, auditory and tactile signals SJ/T 142 General specification for electronic industrial equipment SJ/T 1276 metal plating and chemical treatment layer quality inspection technical requirements SJ/T 10674 General technical paint coating

3 Terms

The following terms and definitions apply to this document.

3.1 Beam energy beamenergy Reach the target on the ion kinetic energy.

Note. The unit of electron volts (eV).

3.2 The target beam beamcurrentontarget Ion beam charge amount per unit time received

by the target.

Note. amperes (A).

3.3 Uniformity uniformity Characterization of ion implantation inhomogeneous dose level. Relative standard deviation.

3.4 Repeatability repeatability Inter Token (or to batch) ion implantation dose level will not be repeated under the same conditions, with the relative standard deviation.