

ICS 77.120.99

CCS H65



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

**GB/T 16482-2009**

Replacing GB/T 16482-1996

**Yttrium-europium oxide-phosphor grade**

荧光级氧化钇铕

**Issued on: April 23, 2009**

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Quarantine of the People's Republic of China;  
Standardization Administration of China**

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### Foreword

This standard replaces GB/T 16482-1996 "yttrium oxide phosphor grade." This standard compared with GB/T 16482-1996, the main changes are as follows:

- Cancel the original grade (Y, Eu) 2O<sub>3</sub>, with particle size specification is divided into three grades;
- Adjustment yttrium europium oxide content in the range;
- Value adjustment center particle size (D [V, 50]) range. This standard by the National Standardization Technical Committee rare and centralized. This standard by the Jiangyin Jiahua Advanced Material Resources Co., Ltd., Guangdong Zhujiang Rare Earth Co., Ltd. is responsible for drafting. This standard by Xiamen Topstar New Materials Co., Ltd., Guangdong Jiangmen Branch Hang Industrial Co. AG participated in the drafting. The main drafters of this standard. OF ADMINISTRATIVE Xie Jianwei, Xiao Rui, Jin Yanhua, Lan Wei, Huang Rui sweet. This standard replaces the standards previously issued as follows:
- GB/T 16482-1996. Yttrium oxide phosphor grade

### 1 Scope

GB/T 16482-2009 is the Chinese national standard on yttrium-europium oxide-phosphor grade, in the field of metallurgy. 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 23 April 2009 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 1 February 2010. Classification: ICS 77.120.99, CCS H65. 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 yttrium oxide phosphor grade requirements, test methods, inspection rules and signs, packaging, transportation and storage. This standard applies to

chemical method was yttrium oxide, for the production of light rare earth trichromatic phosphors and color TV phosphors and other purposes.

## 2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 8170 numerical rounding rules

GB/T 12690 (all parts), oxides of rare earth metals and their chemical impurity analysis of Central Africa Determination of

GB/T 14635 method for chemical analysis of rare earth metals and rare earth compound total

GB/T 18116.1 yttrium oxide chemical analysis by inductively coupled plasma emission spectrometry lanthanum oxide, yttrium oxide, Cerium oxide, praseodymium oxide, neodymium oxide, samarium oxide, gadolinium oxide, terbium oxide, dysprosium oxide, holmium oxide, erbium oxide, thulium oxide, ytterbium and lutetium oxide amount GB T 18116.2 yttrium oxide chemical analysis of determining the amount of europium oxide / Determination of

GB/T 20170.1-2006 physical properties of rare earth metals and rare earth compounds tested compound particle size distribution

## 3 Requirements

3.1 Chemical composition Grades and chemical composition should be consistent with Table 1. If you have special requirements of the demand side, both supply and demand can be negotiated. Table

1 Product No. 171140A 171140B 171140C chemical composition (Mass fraction) /% REO, not less than 99.0 99.0 99.0 (Y<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub>)/REO, not less than 99.99 99.99

99.99 Eu<sub>2</sub>O<sub>3</sub>/REO 4 ~ 10 4 ~ 10 4 ~

10 Impurity content, no greater than Rare earth impurities/REO La<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 CeO<sub>2</sub> 0.0002 0.0002 0.0002 Pr<sub>6</sub>O<sub>11</sub> 0.0002 0.0002 0.0002 Nd<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 Sm<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 Gd<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 Tb<sub>4</sub>O<sub>7</sub> 0.0002 0.0002 0.0002 Dy<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 Ho<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 Er<sub>2</sub>O<sub>3</sub> 0.0002 0.0002 0.0002 Tm<sub>2</sub>O<sub>3</sub> 0.0001 0.0001 0.0001