(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 1 717 292 A8**

(12) **CORRECTED EUROPEAN PATENT APPLICATION**
Note: Bibliography reflects the latest situation

(15) Correction information:
Corrected version no 1 (W1 A2)
INID code(s) 72,74

(48) Corrigendum issued on:
21.03.2007 Bulletin 2007/12

(43) Date of publication:
02.11.2006 Bulletin 2006/44

(21) Application number: **06112827.8**

(22) Date of filing: **20.04.2006**

(51) Int Cl.:
C09K 11/59 *(2006.01)*

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: **20.04.2005 KR 20050032796**

(71) Applicant: **Samsung SDI Co., Ltd.**
Suwon-si
Gyeonggi-do (KR)

(72) Inventors:
- **Kim, Yong-Seon**
  Seoul 137-875 (KR)
- **Song, Mi-Ran,**
  c/o Samsung SDI Co., Ltd.
  Suwon-si, Gyeonggi-do (KR)
- **Lee, Hyun-Deok**
  Seoul 137-875 (KR)
- **You, Young-Chul,**
  c/o Samsung SDI Co., Ltd.
  Suwon-si,
  Gyeonggi-do (KR)
- **Kwon, Seon-Young**
  Seoul 137-875 (KR)
- **Choi, Ick-Kyu**
  Seoul 137-875 (KR)
- **Park, Kyu-Chan, c/o Samsung SDI Co., Ltd.**
  Gyeonggi-do (KR)
- **Kim, Ji-Hyun,**
  c/o Samsung SDI Co., Ltd.
  Suwon-si, Gyeonggi-do (KR)

(74) Representative: **Hengelhaupt, Jürgen**
Gulde Hengelhaupt Ziebig & Schneider
Wallstrasse 58/59
10179 Berlin (DE)

(54) Phosphor composition for plasma display panel, and plasma display panel having phosphor layer composed of the phosphor composition

(57) Provided are a phosphor composition for a plasma display panel (PDP) including: a phosphor component which is composed of a zinc silicate-based phosphor represented by the formula of Zn_2SiO_4:Mn or of a mixture of the zinc silicate-based phosphor represented by the formula of Zn_2SiO_4:Mn and at least one further phosphor; and a continuous crystalline metal oxide layer composed of at least one positively charged metal oxide formed on the phosphor component, particularly composed of yttrium oxide (Y_2O_3), and a PDP having a phosphor layer composed of the phosphor composition. The phosphor composition for a PDP has a continuous crystalline layer composed of a positively charged metal oxide such as yttrium oxide, and thus has better surface properties. The metal oxide layer acts as a protecting layer to prevent deterioration of the phosphor due to ion bombardment. When the phosphor composition is used to manufacture a green phosphor layer for a PDP, a green discharge voltage can be controlled to levels of red and blue colours due to a better surface charge property and a poor specific gradation discharge problem can be resolved.

EP 1 717 292 A8