

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 February 2009 (26.02.2009)

PCT

(10) International Publication Number
WO 2009/025469 A3

(51) International Patent Classification:
C09K 11/55 (2006.01)

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(21) International Application Number:
PCT/KR2008/004733

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(22) International Filing Date: 14 August 2008 (14.08.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2007-0084659 22 August 2007 (22.08.2007) KR
10-2008-0074241 29 July 2008 (29.07.2008) KR

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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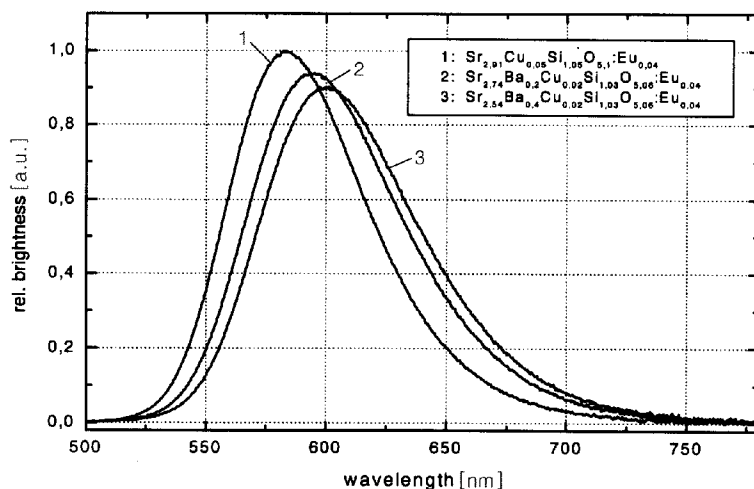
Published:

— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
16 April 2009

(54) Title: NON STOICHIOMETRIC TETRAGONAL COPPER ALKALINE EARTH SILICATE PHOSPHORS AND METHOD OF PREPARING THE SAME

[Fig. 2]



(57) Abstract: Disclosed are non stoichiometric Copper Alkaline Earth Silicate phosphors activated by divalent europium for using them as high temperature stable luminescent materials for ultraviolet or daylight excitation. The phosphors are represented as the formula $(\text{BaSrCuCawCux})_{3.y}(\text{Zn,Mg,Mn})_{z}\text{Si}_{ii}+\text{bO}_5+2\text{bEua}$. The nonstoichiometric tetragonal silicate is prepared in a high temperature solid state reaction with a surplus of silica in the starting mixture. Furthermore, luminescent tetragonal Copper Alkaline Earth Silicates are provided for LED applications, which have a high color temperature range from about 2,000K to 8,000K or 10,000K showing a CRI with $R_a=80\sim 95$, when mixed with other luminescent materials.