Yellow emissive Ca₂SiO₄:Mn²⁺ phosphor for White-Light-Emitting Diode

Seongwoo Park ^{a)}, Jihoon Kim ^{a)}, Gemechu Deressa Edossa ^{a)}, Jongsu Kim ^{a)}, taehoon Kim ^{b)}

 ^{a)}Department of Image Science and Engineering, Pukyong National University, Busan 608-737, South Korea
^{b)} Lumimicro CO., LTD., Yongin-si, Gyeonggi-do, 449-883, South Korea

Yellow emitting $Ca_2SiO_4:Mn^{2+}$ were synthesized at rapid cooling rate by a solid-state reaction. The yellow phosphor shows gamma-phase structure and strong absorption of blue light. The structure, luminescence, and water resistance of the phosphor are presented. This phosphor has a potential use for color conversion in white-light-emitting diode.