

Supplementary Information

Eu²⁺ Luminescence from 5 different crystallographic sites in a novel red phosphor, Ca₁₅Si₂₀O₁₀N₃₀:Eu²⁺

Woon Bae Park,^{†1} Satendra Pal Singh,^{†1} Chulsoo Yoon,² Kee-Sun Sohn^{*1}

¹*Department of Printed Electronics, World Class University Program, Sunchon National University, Chonnam 540-742, Republic of Korea*

²*LED Division, Samsung Electronics Co., Suwon, Kyunggi 443-742, Republic of Korea*

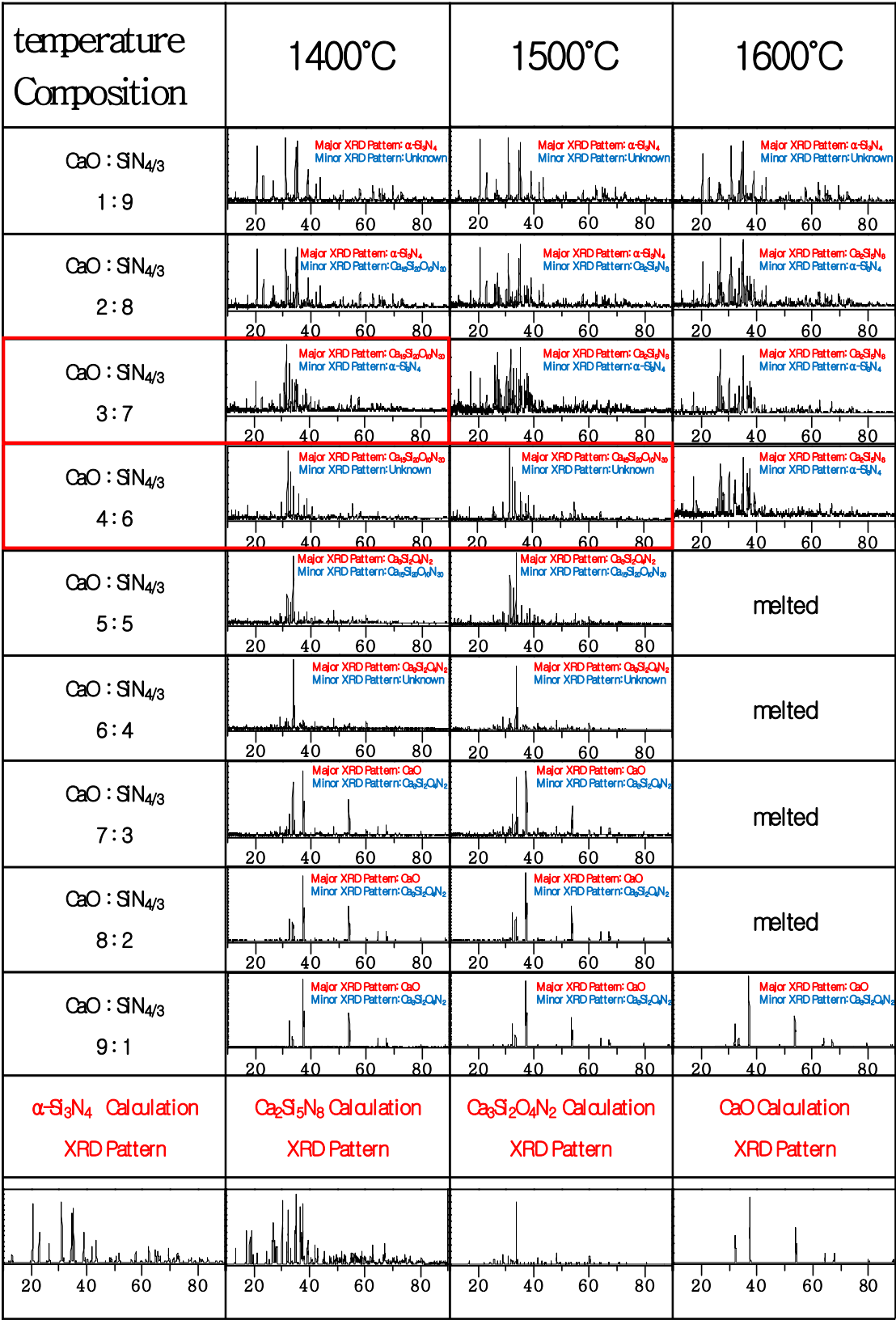


Fig. s1. XRD patterns of 9 samples fired at 3 different temperatures in the CaO-Si₃N₄ binary composition line and their phase identification. Constituent phases were presented as major and minor compounds.

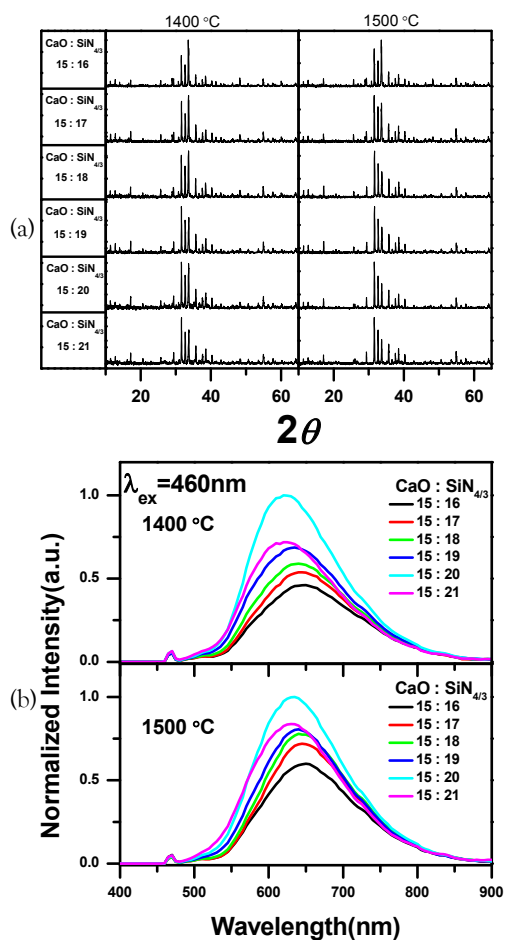


Fig. s2. XRD and PL data for samples fired at temperatures of 1,400 and 1,500 °C in a CaO/SiN_{4/3} ratio ranging from 15/21 to 15/16.