Contribution ID: **370** Type: **Poster Presentation**

Synthesis and photoluminescence properties of CaxSiyOz:Tb3+ nanophosphors prepared using solution-combustion method.

Wednesday, 13 July 2011 17:00 (2 hours)

<p>Tb3+-activated calcium silicate (CaxSyyOz:Tb3+) nanophosphors have been synthesized by means of simple and low temperatures (500℃) using the solution-combustion of corresponding metal nitrate, TEOS and urea solution mixtures. The structural evolution of the phosphor was studied by X-ray powder diffraction (XRD), scanning electron microscopy (SEM), and the luminescence properties of the phosphor powders investigated as a function of terbium concentration. The XRD study indicates that new peaks appear as the terbium concentration increase results in phase changes from CaSiO3 to Ca3Si2O7. The later phase may be favored as a result of some Si sites substituted by the Tb ions as the concentration of Tb was changed from 1 to 4 mol.

Level (Hons, MSc,
   PhD, other)?

PhD

Consider for a student
   award (Yes / No)?

No

Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?

Yes

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