Accepted Manuscript

Title: Synthesis and luminescent properties of Tb^{3+} doped $BaLa_2ZnO_5$ nanoparticles

Authors: Heena Dahiya, Mandeep Dalal, Jyoti Dalal, V.B. Taxak, S.P. Khatkar, Dinesh Kumar

PII: S0025-5408(17)32900-8
DOI: https://doi.org/10.1016/j.materresbull.2017.11.005
Reference: MRB 9663

To appear in: *MRB*

Received date: 26-7-2017
Revised date: 3-11-2017
Accepted date: 3-11-2017

Please cite this article as: Heena Dahiya, Mandeep Dalal, Jyoti Dalal, V.B.Taxak, S.P.Khatkar, Dinesh Kumar, Synthesis and luminescent properties of Tb3+ doped BaLa2ZnO5 nanoparticles, Materials Research Bulletin https://doi.org/10.1016/j.materresbull.2017.11.005

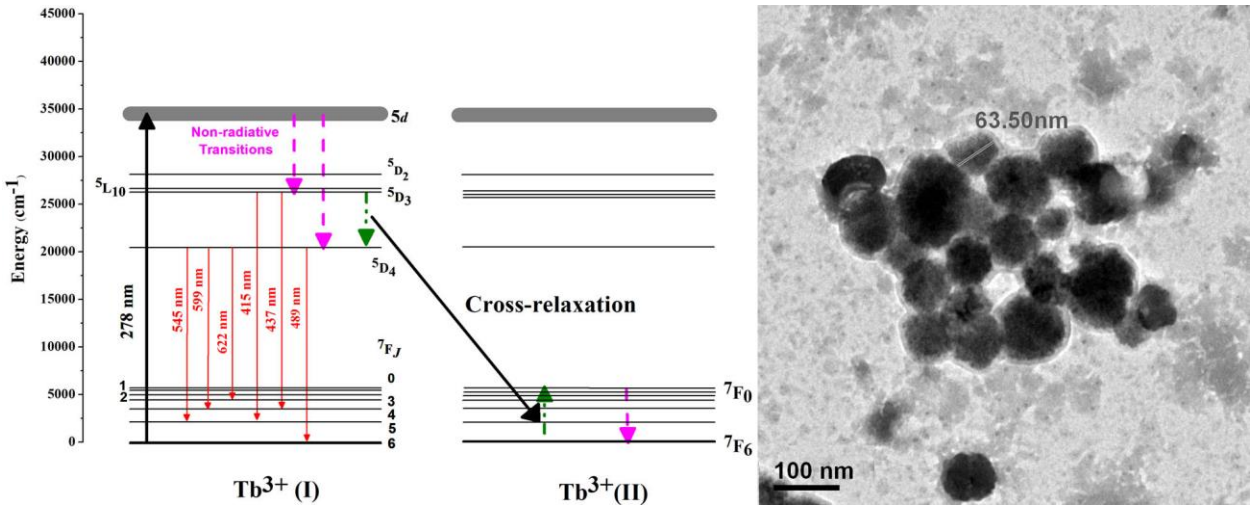
Synthesis and luminescent properties of Tb^{3+} doped $BaLa_2ZnO_5$ nanoparticles

Heena Dahiya[1], Mandeep Dalal[2], Jyoti Dalal[2], V. B. Taxak[2], S. P. Khatkar[2], Dinesh Kumar[1*]

[1]*Department of Chemistry, Deenbandhu Chhotu Ram University of Science & Technology, Murthal, Sonepat-131039, India*

[2]*Department of Chemistry, Maharshi Dayanand University, Rohtak -124001, India*

Graphical abstract



Highlights:

- First combustion-synthesis report of $BaLa_{2-x}ZnO_5:xTb^{3+}$ nanophosphors.
- Lattice parameters and atomic positions have been refined.
- Critical distance for non-radiative energy transfer has been calculated.
- These nanophosphors are suitable candidate for solid state lighting.
- Some blue to green color tunability has been found.

Corresponding Author: Tel: +919215744922

E-mail address: dineshdalal8@rediffmail.com (Dinesh Kumar)