

**Dr. Ujjwala Bhimrao Gokhe**

**Designation:** Associate Professor

**Department:** Physics

**Contact Information**

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**Educational Background**

PhD, Luminescence in Solids, SGB Amravati University, Amravati, 2017

Previous Degrees: MSc in Physics

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**Areas of Expertise / Research Interests**

Material Science

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**Teaching Interests**

Thermal and Statistical Physics, Classical Mechanics, Digital Electronics, Microprocessor, C++

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**Professional Experience**

Associate Professor, B. N. Bandodkar College, 25 years of experience

Coordinator of Magazine committee (2016-2019)

Program officer of NSS (2020-2023)

Coordinator of Department of Lifelong Learning and Extension (DLLE)(since 2024)

Presiding officer of Internal Committee (IC) (Since 2025)

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## Publications & Research

1.	<p><b>Synthesis and fluorescence properties of <math>\text{Ca}_2\text{SiO}_4\text{:Dy}^{3+}</math> phosphor for solid state lighting application</b></p> <p>U. B. Gokhe, K. A. Koparkar, S. K. Omanwar</p> <p>Journal: Journal of Materials Science Materials in Electronics 27 (2016) 5600-5606</p>
2.	<p><b>Synthesis and photoluminescence properties of novel <math>\text{Sm}^{3+}</math> doped <math>\beta\text{-LiAlSiO}_4</math> phosphor for red-orange LEDs</b></p> <p>U. B. Gokhe, K. A. Koparkar, S. K. Omanwar</p> <p>Journal of Alloys and Compounds, Vol 689 (2016), P: 992-997</p>
3.	<p><b>A novel N-UV pumped novel <math>\text{Dy}^{3+}</math> activated <math>\text{Li}_2\text{CaSiO}_4</math> phosphor for white light emitting diodes</b></p> <p>U. B. Gokhe, S. K. Omanwar</p> <p>International Journal of Latest Research in Engineering and Technology (IJLRET) Vol 2 Issue 3 (2016) P: 08-13</p>
4.	<p><b>Synthesis and photoluminescence properties of <math>\text{Sm}^{3+}</math> doped <math>\text{Sr}_2\text{MgSi}_2\text{O}_7</math></b></p> <p>U. B. Gokhe, S. K. Omanwar</p> <p>IOSR Journal of Applied Physics (IOSR-JAP) e-ISSN:2278-4861. Volume 7, Issue 3 Ver IV (2015)13-19.</p>
5.	<p><b>Blue-Light-Emitting <math>\text{Eu}^{2+}</math> Doped Lithium Calcium Silicate Phosphor for White-Light-Emitting-Diode</b></p> <p>U. B. Gokhe, S. K. Omanwar</p> <p>International Journal of Latest Research in Engineering and Technology (IJLRET) ISSN: 2454-5031, Volume 2, Issue 3(2016)08-13</p>
6.	<p><b>Luminescence Investigation of Lithium Strontium Silicate Doped Rare Earth Elements Synthesized By Solution Combustion Method.</b></p> <p>U. B. Gokhe, S. K. Omanwar</p> <p>Bionano Frontier Print ISSN 0974-0678, online:2320-9593, Volume 7(2), (2014)221-225</p>
7.	<p><b>Synthesis Of <math>\text{Eu}^{3+}</math> Activated Orthosilicate Phosphors By Self Combustion Synthesis Used for White Light Emitting Diodes.</b></p> <p>U. B. Gokhe, S. K. Omanwar</p> <p>JBNB volume 3(2015) ISSN 2454-2776.</p>

8.	<b>Synthesis and Photoluminescence study of Lithium Aluminium Silicate Host Red Phosphor.</b> <b>A. S. Dani, U. B. Gokhe*</b> <b>JBNB volume 4(2016) ISSN</b>
9.	<b>Synthesis and photoluminescence study of <math>\text{Sr}_x\text{Ba}_y\text{SiO}_4\text{:Eu}^{3+}</math></b> <b>U. B. Gokhe, V. B. Bhatkar, S. K. Omanwar</b> Lasers and Advanced materials: A proceeding of NCLAM-2012, ISBN 978-81-922256-6-1
10.	<b>Lithium Strontium Silicate as Rare Earth Double Activated Phosphor</b> <b>U. B. Gokhe, S. K. Omanwar</b> Recent trends in mathematics, Physics and their Applications: Proceedings of national conference-2014, ISBN 987-81-929160-2-6
11.	<b>Chapter published in book:</b> <b>Photoluminescence properties and synthesis of <math>\text{Sm}^{3+}</math> doped <math>\text{Ba}_2\text{MgSi}_2\text{O}_7</math> prepared by solution combustion method.</b> <b>U. B. Gokhe</b> Nanomaterials Synthesis – Applications Editor: Dr Kailas Jagdeo Published by: Dombivli Shikshan Prasarak Mandal's, KVP College, Dombivli, P: 42-45

• *Poster/Oral presentations in conference*

1.	<b>Photoluminescence properties and synthesis of <math>\text{Sm}^{3+}</math> doped <math>\text{Sr}_2\text{MgSi}_2\text{O}_7</math>.</b> <div style="text-align: right;"><b>(Poster)</b></div> 5 <sup>Th</sup> International conference on Luminescence and its Application (ICLA 2015)
2.	<b>Photoluminescence properties and synthesis of <math>\text{Sm}^{3+}</math> doped <math>\text{Ba}_2\text{MgSi}_2\text{O}_7</math> prepared by solution combustion method.</b> <div style="text-align: right;"><b>(Poster)</b></div> Internatinal Conference on Nanomaterials for Sustainable Green Technology. (2015)
3.	<b>Synthesis of <math>\text{Li}_2\text{SrSiO}_4</math>: Re (<math>\text{Eu}^{3+}</math>, <math>\text{Sm}^{3+}</math>, <math>\text{Ce}^{3+}</math>, <math>\text{Tb}^{3+}</math>)Phosphor and its luminescent Mechanism.</b> <div style="text-align: right;"><b>(Poster)</b></div> National conference on luminescence and its applications (NCLA 2013)
4.	<b>Synthesis and photoluminescence of Strontium Silicate doped with <math>\text{Ce}^{3+}</math> and <math>\text{Li}^+</math>.</b> <div style="text-align: right;"><b>(Oral)</b></div> UGC Sponsored National Seminar on Nanomaterials: The Indian Perspective (2015)

<b>5.</b>	<b>Synthesis and Fluorescence properties of Eu in BaAl<sub>2</sub>Si<sub>2</sub>O<sub>8</sub></b> <b>(Poster)</b> International conference on Advances in Science, Technology and Engineering-2018
<b>6.</b>	<b>Harmonizing the pulse of soil with the help of a powerful booster of black gold vermicompost, a live fertilizer.</b> <b>(Oral)</b> National conference on ECO PULSE: MONITORING BEATS OF ECOSYSTEM-2025

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### **Projects**

**Mumbai University Minor Research Project Grant for the year 2016-17**

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### **Recognitions**

**Recognized as Post graduate teacher in the subject of Physics.**

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