

Dr. Rajni Bala
Assistant Professor
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EDUCATIONAL QUALIFICATIONS

Degree	Year of Passing	University/Institute
Ph. D. (Physics)	2015	Guru Jambheshwar University of Science & Technology, Hisar
M.Sc. (Physics)	2008	Guru Jambheshwar University of Science & Technology, Hisar
B.Sc.	2006	M. D. University, Rohtak

CAREER PROFILE

Working as Assistant Professor, Department of Physics, Maharshi Dayanand University, Rohtak from Sept 2010 till date.

ACHIEVEMENTS

Qualified CSIR-JRF (NET) in Dec 2007 (among top 25% Awardees)

ACADEMIC/RESEARCH EXPERIENCE 13+ Years

AREA OF RESEARCH Materials Science

A) List of Research Publications

1. **Rajni Bala**, Ashish Agarwal, Sujata Sanghi, Navneet Singh, Effect of Bi_2O_3 on nonlinear optical properties of $\text{ZnO}\cdot\text{Bi}_2\text{O}_3\cdot\text{SiO}_2$ glasses, **Optical Materials**, 36 (2013) 352-356. [I.F.-3.9]
2. Neetu Ahlawat, Sujata Sanghi, Ashish Agarwal, **Rajni Bala**, Influence of SiO_2 on the structure and optical properties of lithium bismuth silicate glasses, **Journal of Molecular Structure**, 963 (2010) 82-86. [I.F.-3.8]
3. **Rajni Bala**, Ashish Agarwal, Sujata Sanghi, Satish Khasa, Influence of SiO_2 on the structural and dielectric properties of $\text{ZnO}\cdot\text{Bi}_2\text{O}_3\cdot\text{SiO}_2$ glasses, **Journal of Integrated Science & Technology**, 3 (2015) 6-13.
4. Sanjay, Nawal Kishore, Ashish Agarwal, Inder Pal, Suman Devi, **Rajni Bala**, Characterization and optical properties of $\text{MoO}_3\text{-PbO-B}_2\text{O}_3$ semiconducting glasses, **American Institute of Physics Conf. Proc.** 1942 (2018) 140012.

5. **Rajni Bala**, Ashish Agarwal, Sujata Sanghi, Sanjay, Electrical characterization and dielectric behavior of $\text{PbO}\cdot\text{Bi}_2\text{O}_3\cdot\text{Ga}_2\text{O}_3$ glasses, **American Institute of Physics Conf. Proc.** 2142 (2019) 070032.
6. Sanjay, Suman Devi, Shalini, Sudesh Kumar, Mukesh Kumar, Nawal Kishore, **Rajni**, Arindam Ghosh, Vijender Singh, Study of dc conductivity of MoO_3 based bismuth borate and lead borate glasses, **American Institute of Physics Conf. Proc.** 2142 (2019) 070033.
7. Sumit Chauhan, **Rajni Bala**, Saroj Rani, Sanjay Gaur, Investigation of structural and optical properties of lithium lead bismuth silicate glasses, **Journal of Materials Science: Materials in Electronics** 33 (2022) 12371–12383. [I.F.-2.8]
8. Sumit Chauhan, **Rajni Bala**, Sanjay Gaur, Saroj Rani, Effect of Bi_2O_3 on structural and optical properties of $\text{Li}_2\text{O}\cdot\text{PbO}\cdot\text{Bi}_2\text{O}_3\cdot\text{B}_2\text{O}_3$ glasses, **Journal of Materials Science: Materials in Electronics** 33 (2022) 22835-22850. [I.F.-2.8]
9. **Rajni Bala**, Ashish Agarwal, Sujata Sanghi, Sanjay Gaur, Saroj Rani, Investigation of third-order nonlinear optical parameters and optical limiting behavior of $\text{PbO}\cdot\text{Bi}_2\text{O}_3\cdot\text{Ga}_2\text{O}_3$ glasses, , **Applied Physics A** 128 (2022) 1036. [I.F.-2.7]
10. Sumit Chauhan, **Rajni Bala**, Sanjay Gaur, Deepesh Sharma, Saroj Rani, Rishi Pal, Study of AC conductivity and dielectric relaxation in Bi_2O_3 modified lithium lead silicate glasses, **Applied Physics A** 129 (2023) 521. [I.F.-2.7]
11. Deepesh Sharma, **Rajni Bala**, *Book Chapter*: Load Frequency Control of Interconnected Hybrid Power System, **Communication and Intelligent Systems** 681-692 (2023). (Publisher: Springer)
12. Komal Poria, Sunil Dhankhar, Rajesh Parmar , R.S. Kundu, **Rajni Bala**, Effect of ZnCl_2 on structural and optical features of $\text{TeO}_2\text{--B}_2\text{O}_3\text{--Bi}_2\text{O}_3\text{--ZnCl}_2$ glasses, **Solid State Sciences** 142 (2023) 107239.[I.F.-3.5]
13. Deepesh Sharma, **Rajni Bala**, Surender Singh, Pardeep Sharma, Sahil Punia, Power quality improvement of PV interfaced distribution system, **International Journal of Engineering Science and Technology** 15 (3) (2023) 22-31.
14. Sumit Chauhan, **Rajni Bala**, Divya Yadav, Deepesh Sharma, Sanjay Gaur, Saroj Rani, Electrical Conduction and Dielectric Relaxation in Bismuth-Modified Lithium Lead Borate Glasses, **Journal of Electronic Materials**, 52 (2023) 7952–7961. [I.F.-2.1].
15. **Rajni Bala**, Ashish Agarwal, Sujata Sanghi, Sanjay Gaur, The conduction mechanism and dielectric behavior of cadmium bismuth silicate glasses **Journal of Physics: Conference Series**, 2603 (2023) 012040.

B) Papers presented in Conferences/Symposia

1. 54th DAE-Solid State Physics Symposium organized by M. S. University of Baroda, Vadodra, December 14-18, 2009.
2. National Conference on Advances in Chemical Sciences (ACS-2013) organized by Department of Chemistry, M. D. University, Rohtak, March 1-2, 2013.
3. DAE-BRNS National Laser Symposium (NLS-22) organized by MIT, Manipal University, Manipal, January 08-11, 2014.

4. International Conference on Optics and Optoelectronics (ICOL-2014) organized by IRDE, Dehradun, March 05-08, 2014.
5. National Seminar on Advancements in Material Science (NSAIMS-2014) organized by AIJHM College, Rohtak, March 10, 2014.
6. National laser Symposium (NLS-23) organized by Sri Venkateswara University, Tirupati, Andhra Pradesh, December 03-06, 2014.
7. 2nd National Conference on Photonics & Materials Science (NCPMS-2014) organized by Guru Jambheshwar University of Science & Technology, Hisar, March 20-21, 2014.
8. 3rd National Conference on Photonics & Materials Science (NCPMS-2015) organized by Guru Jambheshwar University of Science & Technology, Hisar, November 18-19, 2015.
9. International Conference on Advances in Basic Sciences (ICABS-19) organized by GDC Memorial College, Bahal, Bhiwani, February 07-09, 2019
10. International Conference on Cutting-edge Research in Material Science and Chemistry, (CRMSC-2021) organized by Department of Chemistry and Biosciences, School of Basic Sciences, Manipal University, Jaipur, January 11-12, 2021.
11. International Conference on Frontiers in Physics, Materials, Science and Nanotechnology (FPMSN-2022) Department of Physics, Chaudhary Devi Lal University, Sirsa, March 25-26 2022.
12. 2nd International Conference on Aerosols, Air Quality, and Climate Change (AAC-2022) over Himalayan Region of Uttarakhand organized by Department of Physics and Internal Quality Assurance Cell, HNB Garhwal University, Srinagar Garhwal, Uttarakhand, November 04-06, 2022.
13. International Symposium on Semiconductor Materials and Devices-2022 (ISSMD-2022) organized by School of Electronics Engineering, KIIT, Bhubaneswar, Odisha, December 16-18, 2022.
14. National Conference on Physics and Chemistry of Materials (NCPCM-2023) organized by Department of Physics, Department of Electronics Govt. Holkar Science College, Indore, March 16-18, 2023.
15. International Conference on Energy and Advanced Materials (ICEAM-2023) organized by Department of Physics and Material Science & Engineering, Jaypee Institute of Information Technology, Noida November 02-04, 2023.

C) Seminar/Workshop/Symposia attended: 10