Curriculum Vitae

PERSONAL INFORMTION

Name: Dr. Rubby Mahajan

Postal Address: Ward no. 6, Main Bazaar Kathua ,

Near Hari Om Bartan Store Kathua, Jammu.

Date of Birth: 28-09-1992

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EDUCATION

S no.	Qualification	University	Year of passing	Marks Obtained	Specialization
1.	Ph.D. Physics	Shri Mata Vaishno Devi University, Katra	2021		**Synthesis and Spectral studies (Spectroscopy)**
2	M.Sc. Physics	Shri Mata Vaishno Devi University, Katra	2015	78.30	**Condense Matter Physics**
3	B.Sc.	GDC Kathua (Jammu University)	2013	71.87	**English, Maths, Physics, Computer Application**
4	12^{th}	Cosmic Heart Sr. Sec. School Kathua (JK Bose)	2010	73.47	**English, Maths, Physics, Chemistry, Environmental Science**
5	10^{th}	Cosmic Heart Sr. Sec. School Kathua (JK Bose)	2008	82.0	**English, Maths, Science, Hindi, Social Science**

EMPLOYMENT HISTORY AND EXPERIENCE

- **4 years and 5 months** experience in teaching in School of Physics in SMVDU Katra during research period (2017-2021).
- **1 years and 8 months** experience in teaching as Assistant Professor in University Institute of Engineering and Technology (UIET), Janglote, University of Jammu, J & K.

- **1 year** experience in teaching as Assistant Professor in Govt. Degree College Kishtwar, University of Jammu, J&K.

M.Sc. PROJECT DETAIL

Title: Structural and optical characterization of Dy^{3+} doped α-Al_2O_3 nanophosphors.

Google Scholar Citations link:

https://scholar.google.co.in/citations?user=https://scholar.google.co.in/citations?hl=en&authu=&user=Ro0-wjMAAAAJ

PAPER PUBLISHED IN JOURNALS

1. **Rubby Mahajan**, Sandeep Kumar, Ram Prakash, Vinay Kumar, R. J. Choudhary, D. M. Phase, *X-ray photoemission and spectral investigations of Dy^{3+} activated magnesium pyrophosphate phosphors*, Journal of Alloys and Compounds, 777 (2019) 562-571, https://doi.org/10.1016/j.jallcom.2018.10.355 **[SCI, I.F. = 6.317].**
2. **Rubby Mahajan**, Ram Prakash, *Synthesis and effect of Dy^{3+} doping on vibrational and luminescent properties of $Mg_2Zn(PO_4)_2$*, Journal of Materials Science: Materials in Electronics, 31 (2020) 3861–3868, https://doi.org/10.1007/s10854-020-02931-9 **[SCI, I.F. = 2.478].**
3. **Rubby Mahajan**, Ram Prakash, *Effect of Sm^{3+} doping on optical properties of $Mg_2P_2O_7$ and $Mg_3P_2O_8$ phosphors*, Materials Chemistry and Physics, 246 (2020) 122826-122836, https://doi.org/10.1016/j.matchemphys.2020.122826 **[SCI, I.F. = 4.93].**
4. **Rubby Mahajan**, Ram Prakash, Sandeep Kumar, Vinay Kumar, R. J. Choudhary, D. M. Phase, *Surface and luminescent of $Mg_3(PO_4)_2$:Dy^{3+} phosphors*, Optik - International Journal for light and Electron, 225 (2021) 165717-165730, https://doi.org/10.1016/j.ijleo.2020.165717 **[SCI, I.F. = 3.1].**
5. **Rubby Mahajan**, Ram Prakash, R. J. Choudhary, D. M. Phase, *Structural, electronic, and optical characterization of Eu^{3+}/Dy^{3+} single and co-doped $Mg_2P_2O_7$ phosphors*, Physica Scripta, 96 (2021) 075808-075822, https://doi.org/article/10.1088/1402-4896/abfa42 **[SCI, I.F. = 3.52].**
6. Pooja Khajuria, **Rubby Mahajan,** Sandeep Kumar, Ram Prakash, R. J. Choudhary, D. M. Phase, *Surface and spectral investigation of Sm^{3+} doped MgO-ZrO_2 phosphor*, Optik -

International Journal for light and Electron, 216 (2020) 164909-164919, https://doi.org/10.1016/j.ijleo.2020.164909 **[SCI, I.F. = 3.1].**

7. Pooja Khajuria, **Rubby Mahajan,** Ram Prakash, R. J. Choudhary, D. M. Phase, *Spectral and optical properties of Ruddlesden-Popper-type $Ba_3Zr_2O_7$ phosphors doped with Eu^{3+} ion*, Applied Physics A 127 (2021) 807-819, https://doi.org/ 10.1007/s00339-021-04956-1 **[SCI, I.F. = 2.389].**
8. Pooja Khajuria, **Rubby Mahajan,** Ram Prakash, *Synthesis and luminescent properties of ZrO_2 and Dy^{3+}-activated ZrO_2 powders,* Journal of Materials Science: Materials in Electronics, 32 (2021) 27441–27448, https://doi.org/10.1007/s10854-021-07120-w, **[SCI, I.F. = 2.478].**
9. **Rubby Mahajan**, Ram Prakash, *Effect of Eu^{3+} ion on spectral investigation of red emitting MgP_2O_6 phosphate*, Optik 266 (2022) 169611, **[SCI, I.F. = 3.1].**
10. **Rubby Mahajan**, Ram Prakash, *A Review report on Structural and optical characterization of rare earth/ transition metal doped pyrophosphate phosphors*, Journal of Materials Science: Materials in Electronics 33 (2022) 25491, **[SCI, I.F. = 2.478].**
11. **Rubby Mahajan,** Rajan Verma, Dharam Buddhi, *Photoluminescent studies of trivalent terbium activated magnesium metaphosphate phosphors*, Advances in Materials and Processing Technologies 9 (2023) 1-9 , **[SCI, I.F. = 4.73].**
12. Pooja Khajuria, Vishav Deep Sharma, **Rubby Mahajan,** Ram Prakash, R. J. Choudhary, *Influence of Sm^{3+} ion doping on the surface and photoluminescence properties of Ba3Zr2O7 phosphor*, Materials Today Communications 36 (2023) 106373, **[SCI, I.F. = 3.662].**
13. **Rubby Mahajan**, S. Sharma, Ram Prakash, *Spectroscopic study of yellowish white light emitting MgP_2O_6:Dy^{3+} phosphor*, [Communicated].

PAPER PUBLISHED IN CONFERENCE

1. **Rubby Mahajan**, Sandeep Kumar, Ram Prakash, Vinay Kumar, *Synthesis and luminescent properties of Sm^{3+} doped zinc aluminate phosphor*, AIP Conference Proceedings 1953 (2018) 030209-030213, https://doi.org/ 10.1063/1.5032544.
2. **Rubby Mahajan**, Sandeep Kumar, Ram Prakash, Vinay Kumar, *Synthesis and*

luminescent properties of Sm^{3+} activated lithium zinc borate phosphor, AIP Conference Proceedings 2006 (2018) 030045-030049, https://doi.org/ 10.1063/1.5051301.

3. Ram Prakash, **Rubby Mahajan**, *Luminescent properties of europium actived Magnesium orthophosphate for red emitting phosphor*, AIP Proceeding, 2265 (2020) 030066-030070, https://doi.org/10.1063/5.0017195.
4. Pooja Khajuria, **Rubby Mahajan**, Sandeep Kumar, Ram Prakash, *Synthesis and Optical Properties of Magnesium Zirconium Oxide*, AIP Proceeding, 2220 (2020) 020023-020027, https://doi.org/10.1063/5.0001422.
5. Ram Prakash, Sandeep Kumar, **Rubby Mahajan**, Pooja Khajuria, Vinay Kumar, R. J. Choudhary, D.M. Phase, *Spectral properties of Dy^{3+} doped $ZnAl_2O_4$ phosphor*, AIP Proceeding, 1953 (2018) 030040-030044, https://doi.org/10.1063/1.5032375.
6. Sandeep Kumar, Pooja Khajuria, **Rubby Mahajan**, Vishav Deep Sharma, Y. Lee, Ram Prakash, *Synthesis and spectral properties of Sm^{3+} doped $MgAl_2O_4$ phosphor*, AIP Proceeding, 2020, 020011-020015, https://doi.org/10.1063/5.0001443.

CONFERENCE AND WORKSHOP ATTENDED

1. Participated and presented a paper entitled *"Structural and optical characterization of Dy^{3+} doped Al_2O_3 nanophosphors"* in National Conference on "*Recent Advanced in Materials Science and Spectroscopy (NCRAMSS-2107)"* organized by Department of Physics, Shri Mata Vaishno Devi University, Katra, that was held on 15^{th}-17^{th} February, 2017.
2. Participated and presented a paper entitled "*The Williamson-Hall analysis of Sm^{3+} doped $LiZnBO_3$ phosphor*" in National conference on "*Emerging Trends in Materials Science (NCETMS-2018)*" organized by School of Physics, Shri Mata Vaishno Devi University, Katra, that was held on 07^{th}-08^{th} February, 2018.
3. Participated in "*One day Acquaintance Programme on Accelerator Based Research*" organized by Department of Physics, Central University of Jammu, Jammu sponsored by Inter University Accelerator Centre (IUAC), New Delhi on dated 26^{th} March, 2018.
4. Participated and presented a paper entitled "*Synthesis and luminescent properties of Sm^{3+} doped zinc aluminate phosphor*" in 2^{nd} International conference on *"Condensed Matter*

And Applied Physics" that was held on 24^{th}-25^{th} of November 2017 at Bikaner in Rajasthan.

5. Participated and presented a paper entitled "*Synthesis and luminescent properties of* Sm^{3+} *activated lithium zinc borate*" in National conference on "*Recent Advances in Experimental and Theoretical Physics*" organized by Department of Physics and Astronomical Sciences in Central University Jammu that was held on 17^{th}-18^{th} of April, 2018.
6. Participated and presented a paper entitled *"Spectral and luminescent investigation of* $Mg_2P_2O_7:Dy^{3+}$ *for yellowish white emitting phosphors"* in a international conference on *"Frontiers at the Chemistry –Allied Sciences Interface, 2018 (FCASI-2018)"* organized by Department of Chemistry, University of Rajasthan, Jaipur, India, that was held on 21^{th} to 22^{th} December, 2018.
7. Participated in one day seminar on *"Raman Spectroscopy And Micro Array Printing"* organized by School of Biotechnology (SoBT), Shri Mata Vaishno Devi University, Katra (J&K), held on 20^{th} August, 2018.
8. Participated and presented a paper entitled "*Structural and optical characterization of* Eu^{3+} *doped* $Mg_3(PO_4)_2$ *phosphor*" in a international conference on "*Mechanical Engineering and Allied Sciences*" organized by School of Mechanical Engineering, SMVD University, held on Sept. 14^{th} -15^{th}, 2018.
9. Participated in one day national workshop on *"3D printing for new product development"* organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra (J&K), held on 13^{th} September, 2019.
10. Participated and presented a paper entitled *"Effect of trivalent europium co-doping on optical properties of* $Mg_2P_2O_7$*:* Dy^{3+} *phosphor"* in a 3^{rd} international conference on *"Material Science, 2020 (ICMS2020)"* organized by Department of Physics, Central University Tripura, held on 4^{th}-6^{th} March, 2020.
11. Participated in one week National Webinar Series on *"Experimental & Computational Tools for Materials Research (ECTMR 2020)"* organized by the Discipline of Natural Sciences, PDPM Indian Institute of Information Technology, Design & Manufacturing Jabalpur, and Department of Physics, Central University of Rajasthan, held on 1^{st} June to 8^{th} June, 2020.

12. Participated in three day online Workshop on *"Rietveld Refinement Method"* organized by UGC-DAE Consortium for Scientific Research Mumbai Centre in association with Indore Centre, held on 22nd September to 24th September, 2020.
13. Participated and presented a paper entitled *"Spectral studies of $LiZnBO_3:Dy^{3+}$ phosphor"* in a 6th international conference on *"Recent Advances in Science (ICRAS-2022)"* held on Invertis University, Bareilly in online mode during 1st -2nd April, 2022.

NPTEL ONLINE CERTIFICATION

Successfully completing the nptel online course in Experimental physics-II and Introduction to Laser and got 71% and 44%, respectively.

DECLARATION

I hereby declare that all the information mentioned above is true to the best of my knowledge.

Yours Sincerely

Dr. Rubby Mahajan