



Faculty Profile on University Website

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Title	Dr.	First Name	Rajesh	Last Name	Kumar	Photograph
Designation	Assistant Professor					
College	Constituent government College, Fatehullaganj, Thakurdwara, Moradabad. U. P. India -226010					
Address (Campus)	Department of Physics, Constituent government College, Fatehullaganj, Thakurdwara, Moradabad. Uttar Pradesh India- 226010					
Phone No (Campus)	+918787267983					
Mobile	+919412823479					
Email	rajesh10phy@gmail.com					
Web-Page	NA					
Educational Qualifications (Graduation Onwards)						
Course/Degree	Institution	Year	Details/Thesis Topic/Subjects			
Ph.D	University of Lucknow, Lucknow	2020	Physics			
M.Sc.	M.J.P. Rohilkand University Bareilly	2009	Applied Physics			
B.Sc.	M.J.P. Rohilkand University Bareilly	2006	Physics			
NET-JRF	CSIR, New Delhi	2015	Physical Science			
Career Profile						
Organization / Institution	Designation	Duration	Role			
M.J.P. Rohilkhand University, Bareilly	Assistant professor (Guest Faculty)	November 2009 to June 2012	Teaching and other departmental activities			
M.J.P. Rohilkhand University, Bareilly	Assistant professor (Guest Faculty)	August 2013 to May 2015	Teaching and other departmental activities			
University of Lucknow, Lucknow	Teaching Assistant /Research Scholar	2016-2018	Practical lab B.Sc.			
Constituent Government College, Fatehullaganj, Thakurdwara Moradabad.	Assistant professor	7 Dec.2022 to till date	Teaching and other Academic and administrative Responsibilities			
Research Interests / Specialization						
Vibrational Spectroscopy and Condensed matter physics						
Teaching Experience (Subjects/Courses Taught): 7 years						
<ul style="list-style-type: none"> ✓ Engineering Physics ✓ Mathematical Physics ✓ Classical & Statistical Physics ✓ Quantum Mechanics 						
Honors & Awards						
The Best Research two Papers (University of Lucknow, Lucknow)						

Publications /Academic Activities (Numbers Only)									
Books & Monographs (Single Author)		Research Papers Published in International Journals	=06	Papers Presented in Seminars/ Conferences		Seminars/ Conferences Organized		Research Projects (Completed)	
Books (Co-authored)		Research Papers Published in Other Journals		Seminar/ Conferences Attended	=16	Workshops Organized		Research Projects (Ongoing)	
Books (Edited)		Articles Published in Popular Fora, e.g., Websites, Blogs, Newspapers, Magazines etc.		Sessions Chaired in Seminars/ Conferences		Membership of Academic/ Professional Bodies		Foreign Countries Visited for Academic Assignments	
Chapters in Edited Books	=01		Resource Lectures Delivered						

Details of Publications /Academic Activities (2010 Onwards)				
(a) Books / Monographs				
<u>Year of Publication</u>	<u>Title</u>	<u>Publisher</u>	<u>ISBN</u>	<u>Co-Author (if any)</u>
2016	A comparative study of structural and nonlinear optical properties of two chalcone derivatives	Prof. Poonam Tandon, Professor, Department of Physics, University of Lucknow, India. Dr. Karthick Thangavel, Post-Doctoral Fellow, Department of Physics, University of Lucknow, India.	978-93-5267-364-3	06
(b) Papers Published in Indexed/ Peer Reviewed Journals				
<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>ISSN/ Indexing</u>	<u>Impact Factor</u>
2017	Molecular structure, nonlinear optical studies and spectroscopic analysis of chalcone derivative (2E)-3-[4-(methylsulfanyl) phenyl]-1-(3-bromophenyl) prop-2-en-1-one by DFT calculations	Journal of Molecular Structure	0022-2860	3.8
2017	Molecular structure, spectroscopic (FT-IR, FT Raman, UV, NMR and THz) investigation and hyperpolarizability studies of 3-(2-Chloro-6-fluorophenyl)-1-(2-thienyl) prop-2-en-1-one	Journal of Molecular Structure	0022-2860	3.8

2021	Spectroscopic characterization and structural insights of 4-[(1 E)-3-(4-methoxyphenyl)-3-oxoprop-1-en-1-yl] phenyl 4-methylbenzene-1-sulfonate using vibrational, electronic spectra and quantum chemical calculations	Journal of Molecular Structure	0022-2860	3.8	002
2021	Formation of Aminomethanol In Ammonia-water Interstellar Ice	Monthly Notices of the Royal Astronomical Society	0035-8711	4.8	
2022	Spectroscopic and quantum chemical study on a non-linear optical material 4-[(1E)-3-(5-chlorothiophen-2-yl)-3-oxoprop-1-en-1-yl] phenyl4-methylbenzene-1-sulfonate	Journal of Molecular Structure	0022-2860	3.8	
20022	Ab-Initio Simulation of the Interaction of Gold Nanoclusters with Glycine	Journal of Molecular Structure	0022-2860	3.8	

(c) Articles

(d) Seminar/Conference Presentations

- ✓ Vibrational Spectroscopy on Non-Linear Optical (NLO) Properties of 4-[(1E)-3-(5-chlorothiophen-2-yl)-3-oxoprop-1-en-1-yl] phenyl4-methylbenzene-1-sulfonate
Rajesh Kumar, Archana Gupta, Poonam Tandon and P.P. Vinaya
International Symposium on Advances in Functional and Biological Materials (ISAFBM-2019) 28th February, 2019
- ✓ Vibrational Spectroscopy and Non-Linear Optical Properties of 3-(2, 4-Dichlorophenyl)-1-(4-methylphenyl)-prop-2-en-1-one
Rajesh Kumar, Archana Gupta, Poonam Tandon
7th International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2018) November 25 -29, 2018
- ✓ Vibrational Spectroscopic Investigation and Hyperpolarizability Studies of Some Nonlinear Optical Materials using DFT Method
Amit Kumar, **Rajesh Kumar**, Archana Gupta, and Poonam Tandon
“4th international E-workshop/ conference on computational Condensed Matter Physics and Materials Science (IWCCMP-2016)”, 18-20 November 2016,
- ✓ Theoretical investigation on the geometric, spectroscopic and the static first order hyperpolarizability of 3-(2-Chloro-6- fluorophenyl)-1-(2-thienyl) prop-2-en-1-one by Density Functional Theory calculations
Rajesh Kumar, Archana Gupta, Poonam Tandon and P. S. Patil.
6th International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS 2016)”, 5 – 8

November, Lucknow, India

- ✓ Study of Spectroscopic and Nonlinear Optical (NLO) Properties of 3-(2, 4-Dichlorophenyl)-1-(4-methylphenyl)-prop-2-en-1-one Using Density functional theory method
Rajesh Kumar, Archana Gupta, Poonam Tandon and P. S. Patil
International Conference on New Scintillations on Materials Horizon (ICNSMH-2016), 21-23 October, 2016, Bareilly, India
- ✓ Quantum Chemical studies on vibrational spectra and first static hyperpolarizability of non-linear optical material of 3-(2, 4-Dichlorophenyl)-1-(4-methylphenyl)-prop-2-en-1-one
Rajesh Kumar, Archana Gupta, Poonam Tandon and P. S. Patil
International Conference on "Advances in Light Technologies and Spectroscopy of Materials (ICALTSM -16)" January 16-18, 2016 in Department of Physics, University of Lucknow, Lucknow.
- ✓ DFT study on non-linear optical (NLO) properties of 3-(2-Chloro-6- fluorophenyl)-1-(2-thienyl) prop-2-en-1-one
Rajesh Kumar, Vipin Deval, Megha Agrawal, Archana Gupta, Poonam Tandon and P. S. Patil
International Conference on "Light Quanta: Modern Perspectives and Applications (ICQLMPA-15)" December 14-16, 2015 in Physics Department, University of Allahabad, Allahabad.
- ✓ Spectroscopic (FT-IR, FT-Raman, NMR, UV) studies of non-linear optical material (2E)-3-[4-(methylsulfanyl) phenyl]-1-(3-bromophenyl) prop-2-en-1-one with experimental and theoretical approaches
Rajesh Kumar, Amit Kumar, Archana Gupta, Poonam Tandon and E. D. D'silva
International Workshop on Futuristic Materials: Characterization, Properties & Applications in Technology (FMCPAT-14)" July 17-22, 2014 in M. J. P. Rohilkhand University, Bareilly.
- ✓ Vibrational Spectroscopic (FT-IR And FT-Raman) Studies, Natural Bond Orbital Analysis and Molecular Electrostatic Potential Surface of 4-(6-Methoxy-2-Naphthyl)-2-Butanone
Megha Agrawal, Vipin Deval, Amit Kumar, **Rajesh Kumar**, Archana Gupta and Poonam Tandon
International Symposium on Advances in Biological & Material Sciences (ISABMS-2014)" July 15, 2014 in Huboldt Academy, Lucknow & University of Lucknow, Lucknow.
- ✓ Vibrational (FT-IR and FT-Raman) spectral analysis, electronic properties and first order hyperpolarizability studies of non-linear optical material 3-(4-Methoxyphenyl)-1-(pyridin-2-yl) prop-2-en-1-one using Quantum Chemical Calculations.
Rajesh Kumar, Amit Kumar, Poonam Tandon, Archana Gupta and A. Jayarama
International Seminar on Recent Trends in Material Science (RTMS-13), Nov 21, 2013 in M. J. P. Rohilkhand University, Bareilly.
- ✓ Experimental and computational study on molecular structure, Vibrational (FT-IR and FT-Raman) spectra, NBO and first order hyperpolarizability analysis of non-linear optical material 3-(4-Methoxyphenyl)-1-(pyridin-2-yl) prop-2-en-1-one
Rajesh Kumar, Amit Kumar, Poonam Tandon, Archana Gupta and A. Jayarama
International Seminar on Advances in Bio and Nano Materials (ISABNM-13)" November 17, 2013 in Lucknow University, Lucknow.

Participations in Academic Activities:

- ✓ Attended one day International Seminar on 'New horizons of astronomy (ISNHA-2016)' held on 1 Nov, 2016 Council of Science & Technology, U.P. & Department of Mathematics & Astronomy, University of Lucknow, Lucknow.

- ✓ Attended a six days National workshop under Faculty Development Programme (FDP) on ‘*Innovative Research on Materials in Science and Engineering (IRMSE-16)*’ held on 17-22 April, 2016, M. J. P. Rohilkhand University, Bareilly.
- ✓ Attended a six days short term course/workshop on ‘*Microwave & wireless Communication MWC-16*’ held on 29 March- 03 April, 2016, M. J. P. Rohilkhand University, Bareilly.
- ✓ Attended two days National Symposium on “Wavelet and its Applications in Engineering Problems” held on 20- 21 December 2015
- ✓ Attended a one day National Seminar on ‘*Atomic energy in the service of the nations (AESN-2015)*’ held on 1 March, 2015, Bareilly College Bareilly.
- ✓ Attended a six days National workshop under Faculty Development Programme (FDP) on ‘*Recent Advances in Organic & Polymer Chemistry (RAOPC-14)*’ held on 17-22 February, 2014, M. J. P. Rohilkhand University, Bareilly
- ✓ Active participation in National Seminar on ‘*Role of Ion Beam in Materials Science and Acquaintance Programme on Ion Beam Facilities at IUAC New Delhi*’ held on 20 September 2013, Ch. Charan Singh University, Meerut.
- ✓ Active participation in National conference “*Advancement and Futuristic Trends in Material Science (AFTMS 2011)*” 26-27 March 2011 in M. J. P. Rohilkhand University, Bareilly.
- ✓ Active participation in National conference “*Simulation & Characterization of Advanced Materials (SICHAM-2010)*” April 17-18, 2010 in M. J. P. Rohilkhand University, Bareilly.
- ✓ Attended three days National Conference on “*Synthesis and Characterization of Smart Materials (SCSM-2009)*” held on 12- 14 September 2009.

(e) Resource Lectures Delivered

(f) Seminars/Conferences/Workshops Organized

- ✓ Sixth International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2016) November 5-8, 2016 in Department of Physics, University of Lucknow, Lucknow.
- ✓ “International Symposium on Advances in Biological & Material Sciences (ISABMS-2014)” July 15, 2014 in Huboldt Academy, Lucknow & University of Lucknow, Lucknow

(g) Public Service / University Service / Consulting Activity

(h) Memberships of Academic/Professional Bodies

Projects (With Title, Year, Grants, Funding Agency and Collaborations)

Administrative Positions/Assignments Held	
Post-	Nodal Officer
Organization:	Constituent government College, Fatehullaganj, Thakurdwara, Moradabad. U. P. India -226010
Duration:	16/12/2022 to till date
Academic Foreign Visits	
Any Other Details	