

**Kumaun University, Nainital**  
**Curriculum Vitae**

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Name : Dr. Sanjay Pant  
Designation : Professor & Head/Convener (Physics)

Department : Physics

Contact Information

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ORCID ID : none

Scopus ID : [www.scopus.com/authid/detail.uri?authorId=25223404700](https://www.scopus.com/authid/detail.uri?authorId=25223404700)

Vidwan ID : none

**Educational Qualification** :

Degree	University	Subjects	Year
Ph.D.	Kumaun University, Nainital, Uttarakhand, India	Laser and Molecular Spectroscopy*	1993
M.Sc.	Kumaun University, Nainital, Uttarakhand, India	Physics	1987
B.Sc.	Kumaun University, Nainital, Uttarakhand, India	Physics, Mathematics, Chemistry	1985
Intermediate (10+2)	U.P. Board	Physics, Chemistry Mathematics, English, Hindi	1983
High School (10 <sup>th</sup> )	I.C.S.E. Board	English, Hindi, Science, Mathematics, Social Study	1981

**Work Experience:**

Position	Department	University/Organization	Year
Professor	Physics	Kumaun University, Nainital	10 <sup>th</sup> January 2009- till date

Associate Professor	Physics	Kumaun University, Nainital	10 <sup>th</sup> January 2006- 09 <sup>th</sup> January 2009
Reader	Physics	Kumaun University, Nainital	2 <sup>nd</sup> March 2005 - 09 <sup>th</sup> January 2006
Reader	Physics	J.V. Jain (P.G.) College, Saharanpur	10 <sup>th</sup> January 2003- 1 <sup>st</sup> March 2005
Lecturer	Physics	J.V. Jain (P.G.) College, Saharanpur	10 <sup>th</sup> January 1994-09 <sup>th</sup> January 2003

**Administrative Responsibilities:**

<b>Position</b>	<b>Nature of responsibility</b>	<b>University/Organization</b>	<b>Year (From -To)</b>
Dean of Student Welfare	Administrative	DSB Campus, Kumaun University, Nainital	Oct 2023-till date
Coordinator	Academic and Administrative	National Education Policy (NEP - 2020), Kumaun University, Nainital	2021 - Till Date
Coordinator Admissions	Administrative	Kumaun University, Nainital	2018 - Till Date
Coordinator Entrance Examinations (Ph.D., B.Ed.)	Administrative	Kumaun University, Nainital	2018 - Till Date
Director Digital Initiative Cell	Administrative	Kumaun University, Nainital	November 2017-October 2022
Head of the Department	Academic and Administrative	Department of Physics, DSB Campus, Kumaun University, Nainital	Oct 2021-till date Oct 2012 – Oct 2015
Coordinator	Academic and Administrative	SAP (UGC) CAS I programme Department of Physics D.S.B Campus Kumaun University, Nainital	1 <sup>st</sup> April 2013 to Oct 2015
Assistant Coordinator	Academic and Administrative	SAP (UGC) CAS I programme Department of Physics D.S.B Campus Kumaun University, Nainital	Oct 2015 – 2021

Controller of Examination	Academic and Administrative	Kumaun University, Nainital	2012-2013, 2013-2014, 2016-2019
Additional Controller of Examination	Academic and Administrative	Kumaun University, Nainital	2010-2012
Member Evaluation Team, Kumaun University Examinations	Academic and Administrative	Kumaun University, Nainital	2006-2009
Assistant Coordinator, IGNOU study centre - 2762	Academic and Administrative	D.S.B. Campus, Kumaun University, Nainital	September 2009 to June 2011
Assistant Proctor	Administrative	D.S.B. Campus, Kumaun University, Nainital	2006-2007
Assistant Coordinator, IGNOU study centre - 2762	Academic and Administrative	D.S.B. Campus, Kumaun University, Nainital	2017-2019
Dean Student Welfare	Administrative	J.V. Jain (P.G.) College, Saharanpur	1 <sup>st</sup> July 2002 to 1 <sup>st</sup> March 2005
Asstt. Dean Student Welfare	Administrative	J.V. Jain (P.G.) College, Saharanpur	1 <sup>st</sup> July 1999 to 1 <sup>st</sup> June 2002
Asstt. Supdt. in C.C.S. University, Meerut, Examinations	Administrative	J.V. Jain (P.G.) College, Saharanpur	2004
Deputy Controller of the C.C.S University Examination Evaluation Centre	Academic and Administrative	J.V. Jain (P.G.) College, Saharanpur	2003

**Research Interests:**

- Electronics
- Steady State and Time Resolved Fluorescence Spectroscopy.
- Photophysics and Photochemistry in condensed phase.

- Development of sensors based on fluorescence techniques.
- Development of luminescence solar concentrators (LSC) and OLED's using organic-inorganic hybrid systems based on luminescence techniques.

**Publications (start from recent publications)**

a) Research Papers:

S. No.	Author's Name	Title of the Paper	Journal	Volume	Page No.	Year	Impact Factor
1.	N. Fatma, <b>S. Pant</b> , N. Pandey, M. S. Mehata	Excited-state properties of 6-methoxyflavone in the presence of halide ions in aqueous media	Methods and Applications in Fluorescence	11	0450 02	2023	3.2
2.	N. Pandey, <b>S. Pant</b> , M. S. Mehata	Effect of halide ions on the fluorescence properties of 3-aminoquinoline in aqueous medium,	Wiley Luminescence	38	1192	2023	2.1
3.	S. Husain, N. Pandey, N. Fatma, <b>S. Pant</b> , M. S. Mehata	Spectral characteristics of 3,5-diaminobenzoic acid in pure and mixed solvents: Experimental and theoretical study	Journal of Molecular Liquids	368	1207 83	2022	6.0
4.	N. Fatma, <b>S. Pant</b> , M. Singh Mehata	Reinvestigation on photoluminescence of 7-hydroxyflavone in aqueous medium: Proficient fluorescence enhancement	Journal of Photochemistry and Photobiology A: Chemistry	431	1140 14	2022	4.3
5.	M. Adhikari, <b>S. Pant</b> , H. Mishra,	Spectral and time domain fluorescence spectroscopy of gentisic acid molecule in protic and aprotic polymer matrix	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	270	1208 25	2022	4.4
6.	B. Bisht, P. Dey, A. K. Singh, <b>S. Pant</b> , M. S. Mehata	Spectroscopic investigation on the interaction of direct yellow-27 with protein (BSA)	Methods and Applications in Fluorescence,	10	0440 09	2022	3.2
7.	N. Pandey, N. Tewari, <b>S. Pant</b> , M. S. Mehata	Solvatochromism and estimation of ground and excited state dipole moments of 6-aminoquinoline,	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	267	1204 98	2022	4.4

8.	N. Pandey, M.S. Mehata, <b>S. Pant</b> , N. Tewari	Structural, Electronic and NLO properties of 6-aminoquinoline: A DFT/TD-DFT stud	Journal of Fluorescence	31	1719	2021	3.2
9.	B. Bisht, V. Imadi, <b>S. Pant</b> , A. Sen	Solvent-Dependent Spectral Properties in Diverse Solvents, Light Harvesting and Antiviral Properties of Mono-azo Dye (Direct Yellow-27): A Combined Experimental and Theoretical Study	Journal of Computational Biophysics and Chemistry	6	619	2021	2.2
10.	N. Tewari, H. C. Joshi, R. Rautela, <b>S. Pant</b>	Photophysical study of dansylamide in polymeric micro-environment	Journal of Molecular Structure	1227	1295 73	2021	3.8
11.	B. Bisht, P. Bhardwaj, M. Giri, <b>S. Pant</b>	Fluorescence Spectral Properties of Methyl Orange in Homogeneous Media	Journal of Fluorescence	31	1787	2021	2.7
12.	M. Adhikari, N.K. Joshi, H.C. Joshi, M.S. Mehata, H. Mishra, <b>S. Pant</b>	Revisiting the photochemistry 2,5-dihydroxy benzoic acid (gentisic acid): Solvent and pH effect	Journal of Physical and Organic Chemistry	34	1-9	2021	1.8
13.	B. Bisht, M. Giri, <b>S. Pant</b>	Static and dynamic fluorescence spectroscopic analyses of direct yellow 27 -an azo dye	Indian Journal of Physics	96	895- 901	2021	2.0
14.	S. Husain, M.S. Mehata, N. Pandey, H. Mishra, <b>S. Pant</b>	Reinvestigation of the photophysics of 3-aminobenzoic acid in neat and mixed binary solvents,	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy,	247	1191 00	2021	4.4

15.	N. Fatma, M. S. Mehata, N. Pandey, <b>S. Pant</b>	Experimental and theoretical interpretations of spectral behavior of 6-methoxyflavone	Journal of Photochemistry and Photobiology A: Chemistry	404	1129 45	2021	4.3
16.	N. Fatma, M. S. Mehata, N. Pandey, <b>S. Pant</b>	Flavones fluorescence-based dual response chemosensor for metal ions in aqueous media and fluorescence recovery	Journal of Fluorescence	30	759- 772	2020	2.7
17.	N Pandey, M.S. Mehata, N. Fatma, <b>S. Pant</b>	Modulation of Fluorescence properties of 5-Aminoquinoline by Ag <sup>+</sup> in Aqueous Media via charge transfer	Journal of Photochemistry and Photobiology A: Chemistry	396	2020	1125 49	4.3
18.	K. Kumari, N. Tewari, H. C. Joshi, <b>S. Pant</b>	Exploring the effect of hydrogen bonding on protonation of 7,8-benzoquinoline with TFE: Water binary mixture	Journal of Molecular Structure	1211	2020	1281 19	3.8
19.	K. Kumari, N. Tewari, M. S. Mehata, N. Pandey, K. Tiwari, R.K. Ratnesh, H. C. Joshi, <b>S. Pant</b>	Steady State and Time Resolved fluorescence Study of 7,8-Benzoquinoline; Reinvestigation of Excited State Protonation	Journal of Molecular Structure	1180	2019	855	3.8
20.	<u>N. Pandey</u> , <u>R. Gahlaut</u> , <u>P. Pandey</u> , <u>P. Arora</u> , <u>K. Tiwari</u> , <u>N. K. Joshi</u> , <u>H. C. Joshi</u> , <b>S. Pant</b>	Photophysical Investigation of 8-amino 2-Naphthol in Different Micellar Environment	Chemrxiv	<a href="https://doi.org/10.26434/chemrxiv.9942680.v2">https://doi.org/10.26434/chemrxiv.9942680.v2</a>		2019	
21.	N. Pandey, M.S. Mehata,	Efficient Fluorescence Quenching of 5-Aminoquinoline: Silver ion recognition study	Journal of Luminescence	205	2019	475	3.6

	N. Fatma, <b>S. Pant</b>						
22.	N. K. Joshi, <b>S. Pant</b> , H. C. Joshi	Comment on the article "Investigation of fluorescence Resonance Energy Transfer between Fluorescein and Rhodamine 6G",	Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy	174	348	2017	4.3
23.	R. Rautela, P. Arora, N. Ku. Joshi, <b>S. Pant</b> , H. C. Joshi	Fluorescence quenching of 8-methyl quinolinium: An efficient halide indicator mechanism	Journal of Molecular Liquids	218	632	2016	6.0
24.	N. Ku. Joshi, N. Tewari, P. Arora, R. Rautela, <b>S. Pant</b> , H. C. Joshi	Photophysical behavior and fluorescence quenching by halides of quinidine dication: Steady state and time resolved study	Journal of Luminescence	158	412	2015	3.6
25.	K. Tiwari, P. Arora, Neetu Pandey, P. Pandey, H. C. Joshi, <b>S. Pant</b>	Experimental and computational approaches on dipole moment of 5-aminoisoquinoline	Journal of Molecular Liquids	200	460	2014	6.0
26.	N. K. Joshi, P. Arora, <b>S. Pant</b> , H. C. Joshi	Slow Excited State Phototautomerization in 3-Hydroxyisoquinoline	Journal of Photochemistry & Photobiological Sciences	13	929	2014	4.3
27.	P. Arora, H. C. Joshi, N. K. Joshi, Neetu Pandey, P. Pandey, <b>S. Pant</b>	Modulation of the fluorescence properties of 5-amino salicylic acid by triethylamine	Journal of Molecular Liquids	191	128	2014	6.0
28.	N. Pandey, R. Gahlaut, P. Arora, N. K. Joshi, H. C. Joshi, <b>S. Pant</b>	Study of dipole moments of some coumarin derivatives	Journal of Molecular Structure	1061	175	2014	3.8

29.	R. Gahlaut, H, K. Joshi, N. K. Joshi, Neetu Pandey, P. Arora, R. Rautela, K. Suyal, <b>S. Pant</b>	Luminescence characteristics and room temperature phosphorescence of naphthoic acids in polymers	Journal of Luminescence	138	122	2013	3.6
30.	R. Gahlaut, H. C. Joshi, N. K. Joshi, N. Pandey, <b>S. Pant</b>	Photochemistry and excited state prototropic behaviour of 8-amino 2-naphthol	Journal of Molecular and Biomolecular Spectroscopy	109	164	2013	4.4
31.	N. K. Joshi, H. C. Joshi, R. Gahlaut, N. Tewari, R. Rautela, <b>S. Pant</b>	Steady state and time domain fluorescence spectroscopy of isoquinoline: reinvestigation of excited state proton transfer	Journal of Physical Chemistry	116	7272	2012	1.8
32.	R. Rautela, H. C. Joshi, N. K. Joshi, N. Tewari, <b>S. Pant</b>	Effect of positional substitution of methyl group on the fluorescence properties of some quinolinium ions	Journal of Luminescence	132	2151	2012	3.6
33.	P. Arora, K. Suyal, N.K. Joshi, H. C. Joshi, <b>S. Pant</b>	Fluorescence characteristics of 5-amino salicylic acid: An iodide recognition study	Spectrochimica Acta Part A	94	119	2012	4.3
34	J.P. Bridhkoti, H.C. Joshi, <b>S.Pant</b>	Polymer micro-environmental effects on the fluorescence characteristics of 5-aminoquinoline and 3-aminoquinoline	Journal of Luminescence	132	722	2012	3.6
35.	N. K. Joshi, R. Rautela, H. C. Joshi, <b>S. Pant</b>	Fluorescence studies of some protonated cinchona alkaloids in polymers	Journal of Luminescence	131	1550	2011	3.6



36.	R. Gahlaut, J. P. Bridhkoti, N. Tewari, N. K. Joshi, H. C. Joshi, <b>S. Pant</b> ,	Determination of ground and excited state dipole moments of some naphthols using solvatochromic shift method	Journal of Molecular Liquids	63	141	2011	6.0
37.	N. Tewari, N. K. Joshi, R. Rautela, R. Gahlaut, H. C. Joshi, <b>S. Pant</b>	On the ground and excited state dipole moments of dansylamide from solvatochromic shifts of absorption and fluorescence spectra	Journal of Molecular Liquids	160	150	2011	6.0
38.	J. P. Bridhkoti, H. Mishra, H.C. Joshi, <b>S. Pant</b>	Photochemistry of 5-aminoquinoline in protic and aprotic solvents	Spectrochimica Acta Part A	79	412	2011	4.3
39.	J. P. Bridhkoti, R. Gahlaut, H.C. Joshi, <b>S. Pant</b>	Effect of positional substitution of amino group on excited state dipole moments of quinoline	Journal of Luminescence	131	1869	2011	3.6
40.	J.P. Bridhkoti, H.C. Joshi, <b>S. Pant</b>	Fluorescence characteristics of 5-aminoquinoline in acetonitrile: Water	Journal of Molecular Liquids	164	197	2011	6.0
41.	N. K. Joshi, R. Rautela, <b>S. Pant</b> , H. Mishra	Polymer microenvironmental effects on the photophysics of cinchonine dication	Journal of Luminescence	130	1994	2010	3.6
42.	K. Suyal, N. K. Joshi, R. Rautela, H. C. Joshi, <b>S. Pant</b>	Fluorescence properties of 4-amino salicylic acid in polymers	Journal of Photochemistry & Photobiology A	216	51	2010	4.3
43.	R. Rautela, N. K.	Solvatochromic study of 2-hydroxy-4-methylquinoline for the	Journal of Molecular Liquids	154	47	2010	6.0

	Joshi, H. C. Joshi, N. Tewari, S. <b>Pant</b>	determination of dipole moments and solute-solvent interactions					
44.	R. Rautela, N. K. Joshi, H. C. Joshi, N. Tewari, S. <b>Pant</b>	Response to the comments by Kawski and Bojarski on the article by Rautela et. al. J. Molecular Liquids	Journal of Molecular Liquids	157	162	2010	6.0
45.	H. Mishra, S. <b>Pant</b> H. B. Tripathi	Temperature Dependent Time – Resolved Fluorescence Study of Cinchonine Alkaloid Dication	Journal of Fluorescence	18	17	2008	2.7
46.	<b>S. Pant,</b> H. Ohtaka Saiki, Makoto Takezaki, Andrew Scully, Satoshi Hirayama and Toshihiro Tominaga	Effect of Diffusion on the Photo – induced reaction between a tetra anionic porphyrin and methyl viologen cation in methanol	J. Phys. Chem	112	5378	2008	1.8
47.	<b>S. Pant,</b> Hiroyasu Ohtaka Saiki, Makoto Takezaki, Toshihiro Tominaga	Interactions between a tetraanionic porphyrin and the methyl viologen dication in methanol studied by fluorescence quenching reaction	Journal of Molecular liquids	90	121	2001	6.0
48.	<b>S. Pant,</b> H.B. Tripathi , D.D. Pant	Solvent polarity and viscosity effect on the fluorescence spectrum and excited state lifetime of quinine dication	Journal of Photochem. Photobiol. A: Chem.	85	33	1995	4.3
49.	<b>S. Pant,</b> H.B. Tripathi, D.D. Pant	Fluorescence lifetime studies on various ionic species of sodium fluorescein (Uranine)	J. Photochem. Photobiol. A: Chem.	81	7	1994	4.3
50.	<b>S. Pant,</b> Debi Pant ,H.B. Tripathi	Photophysics of the dications of Cinchonine and Cinchonidine	J. Photochem. Photobiol. A: Chem.	75	137	1993	4.3

b) Patents (start from recent publications) : None

Authors name	Title of the patent	Patent no (Granted or filed)	Year
-	-	-	-

c) Books (start from recent publications): None

Authors name	Title of the book	Publisher	ISBN	Year
-	-	-	-	-

d) Book chapters (start from recent publications): None

Authors name	Title of the book	Publisher	ISBN	Year
-	-	-	-	-

e) Conference Publications/Proceedings (start from recent publications): None

Authors name	Title of the paper	Conference name	Year
H. Mishra, S. Pant H.B. Tripathi	Polymer micro-environment effect on photophysical excited state relaxation in 7-hydroxyquinoline	International Conference Humboldt & Kolleg on SCSTMNBG	2008
S. Pant and T. Tominaga	Photoinduced electron transfer quenching of tetra-anionic porphyrin by dication methyl viologen: A comparative study published in proceedings of Trombay Symposium on Radiation and Photochemistry	Proceedings of Trombay Symposium on Radiation and Photochemistry	2006

#### Projects:

S.No.	Title of project	Funding Agency	Amount (Rs.)	Year (From-To)
1.	Effect of Radiation Dose and Microenvironment on Fluorescence Characteristics of Fluorophers of Interest and its Application as an Optrode (Fluorescence Sensor)	(Defence Research and Development Organization) DRDO, New Delhi, India	Rs. 34, 97,853=00	09 <sup>th</sup> Feb 2009- 31 <sup>st</sup> July 2012
2.	Study of Excited state relaxation phenomena in Some Fluorescent molecules	(Defence Research and Development Organization) DRDO, New Delhi, India	Rs. 14,97,000=00	09 <sup>th</sup> March 2005- 31 <sup>st</sup> May, 2007

**Teaching details:**

<b>Name of the course/paper</b>	<b>Department</b>	<b>University</b>	<b>Year</b>
Laser and Molecular Spectroscopy	Physics	Kumaun University, Nainital	Since 2005

**Professional Memberships:**

<b>Organization</b>	<b>Position</b>	<b>Year</b>
Indian Society for Radiation & Photochemical Sciences (ISRAPS) BARC, Mumbai	Life member	
Indian Laser Association (ILA), BARC, Mumbai	Life member	
Laser & Spectroscopy Society of India, BHU, Varanasi	Life member	
Indian Association for Physics Teachers (IAPT), Kanpur	Life member	
Hindi Vigyan Sahitya Parishad, BARC, Mumbai	Life member	

**Honours and Awards :**

<b>Award</b>	<b>Awarding Organization</b>	<b>Year</b>
Post- Doctoral Fellowship	Okayama University of Science, Okayama, Japan.	1 <sup>st</sup> October 1997 to 31 <sup>st</sup> March 1999
Research Associate	UGC- Special Assistance Programme (UGC-SAP) Department of Physics, Kumaun University, Nainital.	15 <sup>th</sup> March 1989 to 9 <sup>th</sup> January 1994

**Conference Presentations:**

Presented research papers and delivered invited talks in more than 50 National / International conferences.

**Signature of the faculty member**