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M. Sc.	Physics [specialization Electronics]	1993
M. Sc.	Physics [specialization Laser and Molecular Spectroscopy]	1996
Ph.D.	Electronic Structure and Time Domain Fluorescence Spectroscopy	2002

Current area of Research Interest:

- Photo physics and photochemistry of some of hydrogen bonded molecular system. Solvation dynamics and fluorescence resonance energy transfer studies of some fluorescent molecule of interest in chemical and bio-molecule system.
- Computational Spectroscopy Through Gaussian 09 Software (i) Fluorescence Dynamics of Protonation of quinoline. (ii) Study of vibronic absorption and emission spectroscopy (iii) Electro-absorption and electro-fluorescence studies, (iv) Circular Dichroism and Potential Energy Surfaces studies of ESIPT and GSIPT reactions.
- Surface Plasmon Coupled Metal Enhanced Fluorescence Study of (i) Fluorescent Conducting Polymers (ii) Near field effect on Charge transfer molecules (iii) Fluorescence Enhancement study of bio-markers for gel electrophoresis analysis and imaging of biological system
- Synthesis and characterization of Multifunctional nano material for (i) Luminescence Solar Collector, photovoltaic materials (ii) Lasing Materials and (iv) Optical Sensor Materials

Published Papers in Journals

- QPRTase modified N-doped carbon quantum dots: A fluorescent bioprobe for selective detection of neurotoxin quinolinic acid in human serum. R. Singh, S. Kashayap, V. Singh, A. M. Kayastha, **Hiridyesh Mishra**, P. S. Saxena, A. Srivastava, R. K. Singh, Biosensors and Bioelectronic, 2018, 101, 103-109.
- An efficient Hg²⁺-ensemble based on a triazole bridged anthracene and quinoline system for selective detection of cyanide through fluorescence turn-off-on response in solution and live cell. R. C. Gupta, S. S. Razia, R. Ali, S. K. Dwivedi, P. Srivastava, P. Singh, B.Koch, **Hiridyesh Mishra**, A.K. Misra, Sensors and Actuators B 251 (2017) 729–738
- Synthesis, spectroscopic characterization, biological activity and theoretical studies of (E)-N3-(2-chlorobenzylidene)-H-1,2,4-triazole-3,5-diamine. M. Pokharia, S. K. Yadav, **Hiridyesh Mishra**, N. Pandey, R. Tilak, S. Pokharia Journal of Molecular Structure 1144 (2017) 324e337
- Detection of in Vitro Metabolite Formation of Leflunomide: A Fluorescence Dynamics and Electronic Structure Study Poornima Sharma, Debraj Gangopadhyay, Phool Chand Mishra, **Hiridyesh Mishra** Journal of Medicinal Chemistry 2016, 59, 3418-3426
- A density functional theory insight into the structure and reactivity of diphenyltin(IV) derivative of glycylp henylalanine Sandeep Pokharia, Rachana Joshi, M. Pokharia, S. K. Yadav and **Hiridyesh Mishra** Main Group Metal Chemistry 2016, 39(3-4), 77-86
- Structure and reactivity of di-n-butyltin(IV) derivative of chlordiazepoxide based on electronic structure calculations S. Pokharia, R. Joshi, M. Pokharia, Swatantra Kumar Yadav and **Hiridyesh Mishra**; Indian Journal of Chemistry A 2016, 55, 938-949
- Conceptual-DFT insights on the structure and reactivity of di-n-butyltin(IV) derivative of chlordiazepoxide S. Pokharia, R. Joshi, M. Pokharia, S. K. Yadav and **Hiridyesh Mishra**, Journal of Indian Chemical Society 2016, 93(5), 1053-1065
- Surface plasmon coupled metal enhanced spectral and charge transport properties of poly(3,3''-dialkylquarterthiophene) Langmuir Schaefer films Rajiv K. Pandey, Swatantra K. Yadav, Chandan Upadhyay, Rajiv Prakash and **Hiridyesh Mishra** Nanoscale 2015, 7, 6083-6092
- A DFT study of temperature dependent dissociation mechanism of HF in HF(H₂O)₇ cluster Swatantra Yadav, **Hiridyesh Mishra** and Ashwani K Tiwari J. Chem. Sci. 2015, 127(10), 1839-1844
- Spectroscopic and structural study of the newly synthesized heteroligand complex of copper with creatinine and urea. Debraj Gangopadhyay, Sachin Kumar Singh, Poornima Sharma, **Hiridyesh Mishra**, V.K.Unnikrishnan, Bachcha Singh, Ranjan K. Singh, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 2015, 154, 200-206
- Metal-Enhanced S1 and Alpha- S1 Fluorescence: Effects of Far-Field Excitation Irradiance on Enhanced Fluorescence **Hiridyesh Mishra** and Chris D. Geddes, J. Phys. Chem. C 2014, 118, 28791-28796

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V. P. Singh, S. B. Rai, **Hirdyesh Mishra** and Chandana Rath; Dalton Transactions RSC 2014, 43, 5309-5316
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