CURRICULUM VITAE

Dr. Pragati Kumar

Assistant Professor
Department of Nano Science and Materials
Central University of Jammu,
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Jammu, J&K, India
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Research Interests: -

1. Semiconductor and metal nanostructures (QDS, NWs, QWs etc.), thin films, and nanocomposites
2. Structural, optical and electrical characterization
3. Optoelectronic devices (Photodetectors, LEDs)
4. Sensing properties of nanostructures (Temperature, Gas, Ions)
5. Ion beam induced synthesis, modification and characterizations
6. Programming and simulations

Ongoing/Completed Projects:

- ✓ SHI effect on photosensing properties of doped II-VI metal sulfides thin films IUAC-UFR (~10.1 Lakhs). (Ongoing since 2023)
- ✓ "Development of Nanostructures Based Optical Sensor" – UGC Start up Grant (10 Lakhs). Completed 2019
- ✓ "Fabrication of Inorganic/Organic Heterojunctions for Optoelectronic Devices"- SERB Early Career Grant (40 Lakhs). Completed 2020
- ✓ Ion beam induced modification of luminescence activators doped CdS thin films- IUAC-UFR (6 Lakhs). Completed 2020
- ✓ Synthesis and Characterization of undoped/doped nanostructures- CUJ-Startup (2 Lakhs). Completed 2019

Professional Recognition:

INSA Visiting Scientist Award 2023.
Dr. D. S. Kothari Post Doctoral Fellowship by University Grant Commission, India in 2014.
Life Time Membership of Ion Beam Society of India by Inter University Accelerator Centre, New Delhi, India in 2016.
Member of Editorial Board in American Journal of Nanosciences (AJN), Science Publishing Group New York, NY 10018 U.S.A. since 2016-2018.
Member of Reviewing Committee in American Journal of Nano Research and Applications (NANO), Science Publishing Group New York, NY 10018 U.S.A. since 2016-2018.
Member of Editorial Board in International Journal of Nanoparticle Research (IJNR), eScience Publishing Group New York, NY 10018 U.S.A. since 2017.
Life Time Membership of Indian Physics Association by TIFR, Colamba, Bombay, India in

2017.
Life Time Membership of Luminescence Society of India by M.S. University, Varodra, India in 2018.
Guest Editor for special issue on "Advanced Nanotechnology-Based Strategies to Obtain Efficient Solid-State Lighting" in Journal of Nanomaterials, Hindawi Publisher.
Member of Editorial Board Members in SCIREA Journal of Physics.
Member of Reviewing Committee in The Open Material Science Journal, Benthamopen.
Member of Reviewing Committee in The Open Fuels & Energy Journal, Benthamopen.
Member of Reviewing Committee in The Open Electrical & Electronics Engineering Journal, Benthamopen.
Review Editor of Frontiers in Environmental Chemistry for Catalytic Remediation sections. Since August 2022.

Research Supervision:

I. Master's Students: 19 (Completed), 02 (Ongoing)
II. Ph.D. Students: 01 (Awarded), 01 (Ongoing)

Details Ph.D. Awarded/Ongoin Details

S. No.	Roll No.	Name of Student	Title of Thesis	Thesis Submitted	Status of Thesis
1.	0601816	Ms. Tania Kalsi	Study of Undoped/Doped CdS Nanostructures for Photosensing Application	Yes	Awarded Sept.2023
2.	21PMST03	Ms. Neha Sharma	Investigation of Transparent Metal Oxide for Optoelectronic Devices		Ongoing

Details MPhil/PG/UG Awarded/Ongoin Details

S. No.	Roll No.	Name of Student	Title of Thesis	Thesis Submitted	Status of Thesis
1.	0601816	Ms. Sapna Rajput	Structural and Optical Properties of Cu Doped CdS Quantum Dots (QDs)	Yes	Awarded 26/07/2018
2.	1201816	Ms. Neeru Mathur	$Cd_{(1-x)}Mg_xS$ Nanoparticles: Synthesis and Characterization	Yes	Awarded 26/07/2018
3.	1001817	Ms. Priya Andotra	Cadmium Sulphide Quantum Dots decorated with Silver Nanoparticles for Photo-sensing Applications	Yes	Awarded 01/08/2019
4.	1201817	Ms.Vishali Jasrotia	Synthesis and Characterization of PbS nanoparticles for NIR Photodetection	Yes	Awarded 01/08/2019
5.	1301817	Ms. Neha Devi	Synthesis and optical characterization of CdS/ZnS core/shell nanostructures	Yes	Awarded 01/08/2019

6.	0601418	Ms. Sharala Benish	Biosynthesis of silver nanoparticles: a review	Yes	Awarded 17/09/2020
7.	0901418	Ms. Bandu Sharma	Toxic ions sensing using carbon quantum dots: Review	Yes	Awarded 17/09/2020
8.	0801419	Ms. Tania Angotra	Study on Cadmium Selenide Based Temperature Sensors	Yes	Awarded 06/07/2021
9.	1301419	Ms. Samreen Pervaiz Malik	Review on Metal Organic Framework (MOFs) Based Thermometry	Yes	Awarded 06/07/2021
10.	1501419	Ms. Indu Devi	Study of CdS and ZnS based temperature sensors	Yes	Awarded 06/07/2021
11.	1701419	Ms. Roshni	Heavy Metals Free QLEDs: A Review	Yes	Awarded 06/07/2021
12.	1001420	Ms. Monia Thakur	Investigation on Photosensing Properties of CdS/PVA Nanaocomposites	Yes	Awarded 26/07/2022
13.	1401420	Ms. Priya Dasrshi	Study on Photosensing Properties of CdS/PVP Nanocomposites	Yes	Awarded 26/07/2022
14.	1601420	Ms. Surbhi Bogal	Study on Photodetection Behaviour of CdS/PMMA Nanocomposites	Yes	Awarded 26/07/2022
15.	0201421	Ms. Anu Sharma	Synthesis and characterization of core/shell/shell nanorods	Yes	Awarded 31/05/2023
16.	0301421	Ms. Greecy Rajput	Study the Influence of Dopant Concentration on Various Properties of Sm:ZnS Nanoparticles	Yes	Awarded 31/05/2023
17.	1401421	Mrs. Reena Devi	Study the Effect of La doping on Structural, Optical and Electrochemical properties of ZnS Nanoparticles		Awarded 31/05/2023
18.	1501421	Mrs. Ripnaaz Kour	Study on Photodetection Properties of PbS/CdS Nanocomposite	Yes	Awarded 31/05/2023
19.	2601421	Ms. Varsha Devi	Study the Effect of Ce Doping on the Photosensing Properties of Mn Doped ZnS		Awarded 31/05/2023

Publications
Editor in Books:-

1. "Complex and composite metal oxides for gas, VOCs and humidity sensors",
   Vol. 1. Fundamentals and approaches, (published on 16 Oct. 2023) ISBN: 9780323953856
   Vol. 2. Technology and new trends"(to be published in March 2024)
   Editors: B. C. Yadav and **Pragati Kumar**

Chapter in Books:-

1. Chapter 12: "Applications of Quantum Dots in Light Emitting Devices" by **Pragati Kumar**, in "Quantum dots: Emerging materials for versatile applications" Edited by S. J. Dhoble, M. M. Domanskais, N. Thejo Kalyani, B.Vengadaesvaran, H. Nagabhushana and Abdul Kariem Arof. Elsevier
   Woodhead Publishing ISBN: 978-0-323-85279-1, 2023, pp305-333
   https://doi.org/10.1016/B978-0-323-85278-4.00011-8
2. Chapter 8: "Efficient PbSe Colloidal QDs for Optoelectronics Devices" by **Pragati Kumar** in "Nanoscale Compound Semiconductors and their Optoelectronics Applications" Edited by V. Pawade, S. J. Dhoble, H. Swart, and D. Hile., Elsevier Woodhead Publishing ISBN: 978-0-12-824062-5, 2022, pp229-269
   https://doi.org/10.1016/B978-0-12-824062-5.00008-7
3. Chapter 6:"Pyroelectric and piezoelectric polymers" by P. Kumar and L. Unnikrishnan, in "Polymers in Energy Conversion and Storage" Edited by Inamuddin. Mohd Imran Ahamed, Rajender Boddula, and Tariq A. Altalhi, CRC press, Taylor and Francis ISBN: 978-1-003-16972-7, 2022, pp109-139
   https://doi.org/10.1201/9781003169727-6
4. Chapter 11: "CdS-based photodetectors for visible-UV spectral region" by Nupur Saxena, Tania Kalsi, and Pragati Kumar in "Handbook of II-VI Semiconductor-Based Sensors and Radiation Detectors: Volume 2, Photdetectors". Edited by Ghenadii Korotcenkov, Springer Publisher, ISBN: 978-3-031-20510-1, 2023, pp 251–279
   https://doi.org/10.1007/978-3-031-20510-1_11
5. Chapter 12: "II-VI semiconductor-based optical gas sensors" by Savita Sharma, Ayushi Paliwal, **Pragati Kumar**, Nupur Saxena, in "Handbook of II-VI Semiconductor-Based Sensors and Radiation Detectors: Volume 3, Sensors, Biosensors, and Radiation Detectors". Edited by Ghenadii Korotcenkov, Springer Publisher, ISBN: 978-3-031-23999-1, 2023, pp-307-333
   https://doi.org/10.1007/978-3-031-24000-3_12
6. Chapter 16: "II–VI Semiconductor-Based Optical Temperature Sensors" by Nupur Saxena and **Pragati Kumar,** in "Handbook of II-VI Semiconductor-Based Sensors and Radiation Detectors: Volume 3, Sensors, Biosensors, and Radiation Detectors ". Edited by Ghenadii Korotcenkov, Springer Publisher, ISBN: 978-3-031-23999-1, 2023, pp-417-438
   https://doi.org/10.1007/978-3-031-24000-3_16
7. Chatpter 2: "Fundamentals of electrical gas sensors" by A. Verma, **Pragati Kumar**, and B. C. Yadav in "Elsevier Book on "Complex and composite metal oxides for gas, VOCs and humidity sensors: Vol. 1. Fundamentals and approaches" Edited by B.C. Yadav and Pragati Kumar, ISBN: 9780323953856, 2023, pp 27-50
   https://doi.org/10.1016/B978-0-323-95385-6.00004-0

8. Chapter 12: "Metal oxide nanocomposites for gas and VOC sensors based on other optical methods" by N. Saxena, T. Kalsi, A. Verma, and **Pragati Kumar** in "Elsevier Book on "Complex and composite metal oxides for gas, VOCs and humidity sensors: Vol. 1. Fundamentals and approaches" Edited by B.C. Yadav and Pragati Kumar, ISBN: 9780323953856, 2023, pp 303-330 https://doi.org/10.1016/B978-0-323-95385-6.00005-2
9. Chapter 10: "All Metal oxide-based photodetectors" by Nupur Saxena, Savita Sharma and **Pragati Kumar**, in "Metal Oxides for Next Generation Optoelectronic, Photonic and Photovoltaic Applications" Edited by Vijay Kumar, Vishal Sharma, Subrata Das, and Hendrik C Swart, Elsevier Publisher, 2023, ISBN: 9780323991438, pp 277-300 https://doi.org/10.1016/B978-0-323-99143-8.00012-2
10. Chapter 19: "Energy Saving Materials for self-powered photodetection" by Nupur Saxena, Tania Kalsi, Ashok Bera, and **Pragati Kumar**, in "Emerging Energy Materials: Applications and Challenges": Editors : Dr. Govind B. Nair, Prof. H. Nagabhushan, Prof. Nirupama S. Dhoble, Prof. Sanjay J. Dhoble, CRC press, Taylor and Francis (In Press)
11. Chapter-1: "The past, present and potential future of Dielectric Nanomaterials" by S. Chandraleka, V. Balasubramani, R. Sasikumar, M. R. Kuppusamy, T. M. Sridhar, Pragati Kumar, and Nupur Saxena in "Emerging Nanodielectric Materials for Energy Storage : Bench to field" Edited by Dr. Srikanta Moharana Springer ISBN: 978-3-031-40938-7 pp 1-23 https://doi.org/10.1007/978-3-031-40938-7_1
12. Chapter 14: "Application of Organic–Inorganic Nanodielectrics for Energy Storage" by Nupur Saxena, P. Sakthivel, D. Sridharan, and **Pragati Kumar** in "Emerging Nanodielectric Materials for Energy Storage : Bench to field" Edited by Dr. Srikanta Moharana Springer, ISBN: 978-3-031-40938-7 pp 384-414 https://doi.org/10.1007/978-3-031-40938-7_14
13. Chapter 8: "2D and 3D nanomaterials-based metal oxide composites and their applications in gas sensing" by P. Kumar, M. C. Mathpal, F. Goutaland, G. K. Inwati1, M. A.G. Soler, **Pragati Kumar**, H.C. Swart in "Elsevier Book on "Complex and composite metal oxides for gas, VOCs and humidity sensors: Vol. 2. Technology and new trends" Elsevier(In Presss)
14. Chapter 13: "ABO_4 and AB_2O_6 structured metal oxides-based gas sensors" by N. Saxena and **Pragati Kumar** in "Elsevier Book on "Complex and composite metal oxides for gas, VOCs and humidity sensors: Vol. 2. Technology and new trends" Elsevier(In Presss)
15. Ch. 20: "Nanotechnology and Green Hydrogen for Circular Bio Economy" by N. Saxena, Balaji Rao Ravuri and **Pragati Kumar** in "ACS Book on "Green Hydrogen Economy for Environmental Sustainability" Edited by Richa Kothari, Deepak Pathania,

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Publications Journals: -

1. Structural study of CdS nanoparticles
Pragati Kumar, Nupur Saxena, F. Singh and Avinash Agarwal
Proceedings of the National Conference on Synthesis and Characterization of Smart Materials, SCSM – 2009, Bareilly, India. Sep. 12 – 14, 2009, pp-128

2. Lattice distortion in ion beam synthesized silicon nanocrystals in SiO_X thin films
Nupur Saxena, **Pragati Kumar**, Avinash Agarwal and D. Kanjilal

Physica Status Solidi A, 209 (2012) 283
Publisher: John Wiley & Sons***, ISSN:*** 1862-6319***, Impact Factor:*** *2.0* Q2
https://doi.org/10.1002/pssa.201127467

3. Nanotwinning in CdS quantum dots
Pragati Kumar, Nupur Saxena, F. Singh and Avinash Agarwal
Physica B: Condensed Matter, 407 (2012) 3347
Publisher: Elsevier***, ISSN:*** 0921-4526***, Impact Factor:*** *2.8* Q2
https://doi.org/10.1016/j.physb.2012.04.029

4. Opto-structural studies of well dispersed silicon nanocrystals grown by atom beam sputtering
Nupur Saxena, **Pragati Kumar**, D. Kabiraj and D. Kanjilal
Nanoscale Research Letters, 7 (2012) 547
Publisher: Springer***, ISSN:*** 1556-276X***, Impact Factor: 5****.418* Q2
https://doi.org/10.1186/1556-276X-7-547

5. Nanotwinning and structural phase transition in CdS quantum dots
Pragati Kumar, Nupur Saxena, Ramesh Chandra, Vinay Gupta, Avinash Agarwal and D. Kanjilal
Nanoscale Research Letters, 7 (2012) 584
Publisher: Springer***, ISSN:*** 1556-276X***, Impact Factor: 5****.418* Q2
https://doi.org/10.1186/1556-276X-7-584

6. SHI induced enhancement in green emission from nanocrystalline CdS thin films for photonic applications
Pragati Kumar, Nupur Saxena, Ramesh Chandra, Kun Gao, Shengqaing Zhou, Avinash Agarwal, Fouran Singh, Vinay Gupta and D. Kanjilal
Journal of Luminescence, 147 (2014) 184
Publisher: Elsevier***, ISSN:*** 0022-2313***, Impact Factor: 3.6*** Q2
https://doi.org/10.1016/j.jlumin.2013.11.026

7. Effect of swift heavy ions on pulsed laser deposited Ag doped CdS nanocrystalline thin films
Pragati Kumar, Nupur Saxena, Vinay Gupta, Kun Gao, Fouran Singh and Avinash Agarwal
Advanced Science Letters 20 (2014) 977
Publisher: American Scientific Publishers***, ISSN:*** 1936-6612***, Impact Factor:*** 1*.253* Q3
https://doi.org/10.1166/asl.2014.5456

8. Correlation between surface phonon mode and luminescence in nanocrystalline CdS thin films: an effect of ion beam irradiation
Pragati Kumar, Nupur Saxena, Vinay Gupta, F. Singh and Avinash Agarwal
Journal of Applied Physics 116 (2014)043517
Publisher: American Institute of Physics, ***ISSN:*** 0021-8979, ***Impact Factor:*** 3*.2* Q2
https://doi.org/10.1063/1.4891452

9. PLD grown Si nanocrystals for memory and optical applications
Nupur Saxena, **Pragati Kumar** and Vinay Gupta
Proceeding of the National Conference on Nanotechnology and Renewable Energy (NCNRE-14), Jamia Milia Islamia University, Delhi, 2014, pp-318-321. ISBN-978-93-81212-65-3

10. Thermal activated structural phase transition and its effect on emission

Pragati Kumar, Nupur Saxena, F. Singh, Avinash Agarwal and Vinay Gupta
Proceeding of the National Conference on Nanotechnology and Renewable Energy (NCNRE-14), Jamia Milia Islamia University, Delhi, 2014, pp-229-232. ISBN-978-93-81212-65-3

11. Swift heavy ion induced functionality in nanocrystalline CdS thin films: Role of growth temperature
Pragati Kumar, Nupur Saxena, F. Singh, Avinash Agarwal and Vinay Gupta
Advanced Materials Letters 6 (2015) 820
Publisher: VBRI Press***, ISSN:*** 0976-3961***, Impact Factor:*** 1.90 Q3
https://doi.org/10.5185/amlett.2015.5921

12. CdS:SiO_2 nanocomposite as luminescence based wide range temperature sensor
Nupur Saxena, **Pragati Kumar**, and Vinay Gupta
RSC Advances, 5 (2015) 73545
Publisher: Royal Society of Chemistry***, ISSN:*** 2046-2069***, Impact Factor:*** *3.9* Q1
https://doi.org/10.1039/C5RA13740C

13. Effect of rapid thermal annealing temperature on the dispersion of Si nanocrystals in SiO_2 matrix
Nupur Saxena, **Pragati Kumar**, Vinay Gupta
AIP Conference Proceedings 1661, 080026 (2015), ISSN: 0094-243X
http://dx.doi.org/10.1063/1.4915417

14. Influence of Ag doping concentration on structural and optical properties of CdS thin films
Pragati Kumar, Nupur Saxena, Avinash Agarwal and Vinay Gupta
AIP Conference Proceedings 1661, 080017 (2015), ISSN: 0094-243X
http://dx.doi.org/10.1063/1.4915408

15. Giant UV-sensitivity in ion beam irradiated nanocrystalline CdS thin films
Pragati Kumar, Nupur Saxena, Sheetal Dewan, Fouran Singh, and Vinay Gupta
RSC Advances, 6(2016) 3641
Publisher: Royal Society of Chemistry***, ISSN:*** 2046-2069***, Impact Factor:*** *3.9* Q1
https://doi.org/10.1039/C5RA21026G

16. Swift heavy ion induced structural phase generation and enhanced luminescence from CdS based nanocomposites
Pragati Kumar, Nupur Saxena, Fouran Singh, and Vinay Gupta
Surface and Coating Technology, 306 (2016)305
Publisher: Elsevier***, ISSN:*** 0257-8972***, Impact Factor: 5.4*** Q1
http://dx.doi.org/10.1016/j.surfcoat.2016.06.082

17. Formation of luminescent Si nanocrystals by ion irradiation
Nupur Saxena, **Pragati Kumar**, Vinay Gupta, D. Kabiraj and D. Kanjilal
Surface and Coatings Technology, 306 (2016)295
Publisher: Elsevier***, ISSN:*** 0257-8972***, Impact Factor: 5.4*** Q1
http://dx.doi.org/10.1016/j.surfcoat.2016.06.071

18. Target swapping in PLD: An efficient approach for CdS/SiO_2 and CdS:Ag(1%)/SiO_2 nanocomposite thin films with enhanced luminescent properties.
Nupur Saxena, **Pragati Kumar**, Vinay Gupta;

Journal of Luminescence 186 (2017) 62
Publisher: Elsevier***, ISSN:*** 0022-2313***, Impact Factor: 3.6*** Q2
http://dx.doi.org/10.1016/j.jlumin.2017.02.015

19. Radiation stability of CBD grown nanocrystalline CdS films against ion beam irradiation for solar cell applications.
Nupur Saxena, **Pragati Kumar**, Vinay Gupta, D. Kanjilal
Journal of Materials Science: Materials in Electronics 29 (2018) 11013
Publisher: Springer***, ISSN:*** 1573-482X***, Impact Factor:*** *2.8* Q2
https://doi.org/10.1007/s10854-018-9183-0

20. Ion beam assisted fortification of photoconduction and photosensitivity.
Pragati Kumar, Nupur Saxena, F. Singh, Vinay Gupta
Sensors and Actuators A 279 (2018) 343
Publisher: Elsevier, ISSN: 0924-4247, Impact Factor: *4.6* Q1
https://doi.org/10.1016/j.sna.2018.06.037

21. Morphological evolution in nanocrystalline CdS thin films from flowers to salt rock like structures.
Nupur Saxena, Tania Kalsi, Prateek Uttam, **Pragati Kumar**
Optical Materials 84 (2018) 625–630
Publisher: Elsevier***, ISSN:*** 0925-3467***, Impact Factor:*** *3.9* Q1
https://doi.org/10.1016/j.optmat.2018.07.068

22. CdS nanodroplets over silica micro balls for efficient room temperature LPG detection
Nupur Saxena, **Pragati Kumar**, and Vinay Gupta
Nanoscale Advances 1 (2019) 2382-2391
Publisher: Royal Society of Chemistry, ***ISSN****: 2516-0230,* ***Impact Factor:*** *4.7* Q1
https://doi.org/10.1039/C9NA00053D

23. Vital role of Ar-ambient pressure in controlled properties of nanocrystalline CdS thin films
Pragati Kumar, Nupur Saxena, and Vinay Gupta
Journal of Materials Science: Materials in Electronics 31 (2020) 6755-6763
Publisher: Springer***, ISSN:*** 1573-482X***, Impact Factor:*** *2.8* Q2
https://doi.org/10.1007/s10854-020-03233-w

24. Comprehensive Analysis of Band Gap and Nanotwinning in $Cd_{1-x}Mg_xS$ QDs
Tania Kalsi, Hrishit Mitra, Tapta Kanchan Roy, Sachin Kumar Godara, and **Pragati Kumar**
Crystal Growth and Design 20 (2020) 6699-6706
Publisher: ACS***, ISSN:*** 1528-7505***, Impact Factor: 3.8*** Q1
https://dx.doi.org/10.1021/acs.cgd.0c00851?ref=pdf

25. Gas Sensing Materials Roadmap
H. Wang, J. Ma, J. Zhang,...., Nupur Saxena, **P. Kumar**, ……
J. Phys. Cond. Matt. 33 (2021) 303001.
Publisher:IOP, ***ISSN:*** 0953-8984, ***Impact Factor:*** *2.7* Q1
https://doi.org/10.1088/1361-648X/abf477

26. $Cd_{1-x}Mg_xS$ CQDs Thin Films for High Performance and Highly Selective NIR Photodetection

Tania Kalsi and **Pragati Kumar**
Dalton Transactions*, *50(2021)12708-12715.
Publisher: Royal Society of Chemistry, ***ISSN****:* 1477-9234*,* ***Impact Factor:*** *4.0* Q1
https://doi.org/10.1039/D1DT01547H

27. IV-curve and structural studies of the composite mixture of reduced graphene oxide and silver nanopowders
Mehar J. Panesar, T. Tchouank Tekou Carol, J. Mohammed, **Pragati Kumar**, Pushpendra Kumar, and A. K. Srivastava
Journal of Materials Science: Materials in Electronics 33 (2022)1228.
Publisher: Springer***, ISSN:*** 1573-482X***, Impact Factor:*** *2.8* Q2
https://doi.org/10.1007/s10854-021-07416-x

28. Quantum Dots Sensitized Solar: A Review on Strategic Developments
Sundar Singh, Zishan H. Khan, Pramod Kumar, and **Pragati Kumar**
Bulletin of Materials Science 45 (2022) 81.
Publisher: Springer***, ISSN:*** 0973-7669***, Impact Factor:*** *1.8* Q3
https://doi.org/10.1007/s12034-022-02662-z

29. Sol-gel auto-combustion synthesis of double metal-doped barium hexaferrite nanoparticles for permanent magnet applications
Sachin Kumar Godara, Varinder Kaur, Parambir Singh Malhi, Saad M Alshehri, Mandeep Singh, Swati Verma, Charanjeet Singh, Pradip K Maji, **Pragati Kumar**, Asiya M Tamboli, Ashwani Kumar Sood
Journal of Solid State Chemistry 312 (2022) 123215.
Publisher: Elsevier***, ISSN:*** 0022-4596***, Impact Factor:*** *3.3* Q2
https://doi.org/10.1016/j.jssc.2022.123215

30. Room temperature ferromagnetism in metal oxides for spintronics: a comprehensive review
Sundar Singh, Veerendra Kumar, Sanjeev Tyagi, Nupur Saxena, Zishan H. Khan and **Pragati Kumar**
***Optical and Quantum Electronics* 55 (2023) 123**
Publisher: Springer Nature, ***ISSN:*** 1572-817X***, Impact Factor: 3.0*** Q2
https://doi.org/10.1007/s11082-022-04325-z

31. Dopant mediated augmentation of nanotwinning and anomalous emission behavior
Tania Kalsi, Sachin Kumar Godara, Rohit Medwal and **Pragati Kumar**
Journal of Luminescence 255 (2023) 119544
Publisher: Elsevier***, ISSN:*** 0022-2313***, Impact Factor: 3.6*** Q2
https://doi.org/10.1016/j.jlumin.2022.119544

32. High performance NIR photodetector based on $Cd_{(1-x)}Cu_xS$ colloidal quantum dots thin films
Tania Kalsi and **Pragati Kumar**
Journal of Physics and Chemistry of Solids 179 (2023) 111377
Publisher: Elsevier***, ISSN:*** 0022-3697***, Impact Factor: 4.0*** Q2
https://doi.org/10.1016/j.jpcs.2023.111377

33. CdS based 3D Nano/Micro-Architectures: Formation Mechanism, Tailoring of Visible Light Activities and Emerging Applications in Photocatalytic H2 Production, CO2 Reduction and Organic Pollutant Degradation
Jai Prakash, **Pragati Kumar**, Nupur Saxena, Zonghua Pu, Zhangsen Chen, Ankit Tyagi, Gaixia Zhang and Shuhui Sun
Journal of Materials Chemistry A, 11 (2023) 10015-10064.
Publisher: Royal Society of Chemistry***, ISSN:*** 2050-7496***, Impact Factor: 11.9 Q1***
https://doi.org/10.1039/D3TA00396E

34. Structural, morphological, optical, photoluminescent and electrochemicalperformance of ZnS quantum dots: Influence of Mn^{2+} and La^{3+} ions
P. Sakthivel, **Pragati Kumar**, M. Dhavamurthy, Arun Thirumurugan, S. Sridhar
Journal of Molecular Structure 1288 (2023) 135723
Publisher: Elsevier***, ISSN:*** 1872-8014***, Impact Factor: 3.8*** Q2
https://doi.org/10.1016/j.molstruc.2023.135723

35. Depreciative behavior of nanotwinning towards emission in Ag doped CdS QDs
Tania Kalsi, P. Sakthivel, Sachin Kumar Godara, Rohit Medwal, Nupur Sxaena and **Pragati Kumar**
***Optical and Quantum Electronics 55* (2023) 996**
Publisher: Springer Nature, ***ISSN:*** 1572-817X***, Impact Factor: 3.0*** Q2
https://doi.org/10.1007/s11082-023-05248-z

36. Effect of Cr substitution in Nickel Spinel ferrite on the Surface Morphology, Structure, Antibacterial activity and Magnetic properties
Sachin Kumar Godara, Venuka Bhasin, Karuna Sharma, Rohit Jasrotia, Jahangeer Ahmed, Sukhmanbir Kaur, Mandeep Singh, Ashwani Kumar Sood, Swati Kumari, Sajjad Hussain, **Pragati Kumar**, Jayesh C Chaudhari.
***Inorganic Chemistry Communications* (2023) 111764**
Publisher: Elsevier, ***ISSN:*** 1879-0259***, Impact Factor: 3.8*** Q2
https://doi.org/10.1016/j.inoche.2023.111764

37. Exchange-Coupling Enhanced: Tailoring Structural and Magnetic Properties of Dy Iron Garnet Ferrite Nanoparticles via La Substitution
Anjori Sharma, Dipesh, **Pragati Kumar**, Joseph Vimal Vas, Rohit Medwal, A.K. Srivastava
Submitted To: Materials Chemistry and Physics (2023)

38. Varistor Response and Structural Characterisations of Cadmium Oxide added Polyaniline Composite Nano-Mixture
Mehar J. Panesar, **Pragati Kumar**, Ajeet Kumar Srivastava
Submitted To: Journal of Materials Science: Materials in Electronics (2023)

39. Varistor Response and Structural Analysation of Silver mixed TiO_2 (anatase) Nanoparticles
Mehar J. Panesar, Tchouank Tekou Carol T., J. Mohammed, **Pragati Kumar**, Pushpendra Kumar, Ajeet Kumar Srivastava
Submitted To: Indian Journal of Physics (2023)

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