

Name : Dr. Jitender Kumar
Date of birth : October 2nd, 1976
Nationality : Indian
Present Address : Department of Physics, Calling Govt. Cilloge Mandi, (H.P.)
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Permanent Address : Village Tawamara, P. O Talyahar,
Distt. Mandi, Himachal Pradesh,
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EDUCATION

- Ph.D. in **Applied Physics**
Guru Nanak Dev University, Amritsar, Punjab
Thesis: Phase Transformation in Impurity Doped GeSbTe Chalcogenide Films.
(Awarded in November 2010)
Supervisor: Prof. R. Thangaraj
- 06/2000 – 06/2002, M.Sc. in **Applied Physics**
Specialization: Electronics
Project: Animation Designing using programming in C & C ++
Supervisors: Prof. M. Mian
- B. Sc with 1st Div
- 10+2 with 1st Div

RESEARCH INTERESTS

- Characterization of Chalcogenide based phase change materials
- Preparation and characterization of Nano-Materials by solution route method for different applications.

CONFERENCES ORGANIZED

- Organized a two days national conference *“Emerging trends in Medical Biotechnology and Nanotechnology”* on 3-4 Dec 2011.

EXPERIENCES

Research Guidance

- Guided Nine M. Phil Thesis
- One Ph.D. Scholar

Research Experience

- Characterization and study of chalcogenide phase change materials
- Supervised Eleven M. Sc Physics and Eight M. Phil Physics students for their project work.
- Acted as Reviewer for Journals of National and International Repute.
 - Physica Scripta (IOP) 01
 - Physica B Condensed Matter (Elsevier) 01
 - Journal of Material Science: Materials in Electronics (Springer) 08
 - African Journal of Microbiology Research (Academic Journals) 01

LIST OF PUBLICATIONS

1. Naveen Thakur, Jitender Kumar , Babita Thakur , Reetika Bhadwal , K. C. Thakur and Yachana Sharma “Radioactivity Measurements along Jwalamukhi Thrust in Himachal Pradesh, India”, CPUH-Research Journal: 2015, 1(2), 23-27
2. Jitender Kumar , Naveen Thakur , Pradeep Katnauria , Reetika Bhadwal , Gulshan Kumar, “ Health Risk Assessment Based on Radioactivity Measurement in Soil Samples Collected from Some Areas of Mandi District in Himachal Pradesh” , CPUH-Research Journal: 2015, 1(2), 14-18
3. J. Kumar, V. Shrivastava, S. Thakur “Synthesis, Characterization of Silver doped zinc oxide nanoparticles & its efficacy evaluation against *Aspergillus brasiliensis* and *Candida albicans*”(Advanced Science Focus)
4. S. Thakur, J. Kumar, J. Sharma, N. Sharma and Praveen Kumar, “*Structural and Optical Properties of Nickel Doped ZnO Nanoparticles and Thin Films*” J. Opt. Adv. Mater. **15** (2013) 989-994
5. G Kumar, A Kumar, V Walia, **J Kumar**, V Gupta, T F Yang, S Singh, B S Bajwa “*Soil gas radon -thoron monitoring in Dharamshala area of North-West Himalayas, India using solid state nuclear track detectors*” J. Earth Syst. Sci. **122**, (2013) 1295-1301
6. N. Sharma, **J. Kumar**, S. Thakur, S. Sharma and V. Shrivastava “*Antibacterial study of Silver doped Zinc Oxide nanoparticles against S. Aureus and B. Subtilis*” Drug Invention Today, 2013, **5**, 50-54
7. S. Sharma, U. Bhardwaj, **J. Kumar**, A. Kumar, S. Dhar “*Measurement of Anomalies in The Spatial Distribution of Radon Content of Soil Gas in some regions of Middle Shivaliks, India*” Advances in Applied Science Research, 2012, **3** (5): 3060-3063
8. **J. Kumar**, R. Thangaraj and T. Stephen Sathairaj “*Influence of Sn substitution on amorphous to crystalline phase transformation in Ge₂₂Sb₂₂Te₅₆ chalcogenide films*” J. Opt. Adv. Mater. **14** (2012) 5

9. **J. Kumar**, R. Thangaraj and T. Stephen Sathairaj “*Effect of Bi Substitution on Phase Transformation Studies for $Ge_{22}Sb_{22}Te_{56}$ thin films*” J. Opt. Adv. Mater. **13** (2011) 1082
10. M. Ahmad, **J. Kumar**, R. Thangaraj; “*Electrical and optical properties of $Sn_{10}Sb_{20}Se_{70-x}Te_x$ ($0 < x < 8$) glassy films*” J. Non-Crystal. Solids. **355** (2009) 2345
11. M. Ahmad, P. Kumar, N. Suri, **J. Kumar**, R. Thangaraj; “*Kinetics of nonisothermal crystallization in $Sn_{10}Sb_{20-x}Bi_xSe_{70}$ glassy semiconductors*” Applied Physics A **94** (2009) 933
12. **J. Kumar**, P. Kumar, M. Ahmed, R. Chander, R. Thangaraj and T. Stephen Sathairaj, “*Phase transformation in $Pb:GeSbTe$ chalcogenide films*” Eur. Phys. J. Appl. Phys. **44** (2008) 117
13. **J. Kumar**, P. Kumar, N. Suri, M. Ahmed, R. Chander, R. Thangaraj and T. Stephen Sathairaj, “*Effect of composition on optical constants of $Pb: GeSbTe$ chalcogenide thin films*” OAM-RC **2** (2008) 635
14. **J. Kumar**, M. Ahmed, R. Chander and R. Thangaraj, “*Phase segregation in $Pb:GeSbTe$ chalcogenide system*” Eur. Phys. J. Appl. Phys. **41** (2008) 13
15. P. Kumar, **J. Kumar**, M. Ahmed and R. Thangaraj, “*Effect of composition and light intensity on the electrical properties of $Sn-Sb-Se$ glassy films*”, Applied Physics A **90** (2008) 469
16. N. Suri, K. S. Bindra , M. Ahmed, **J. Kumar** and R. Thangaraj “*Optical and electrical studies of as-prepared and annealed $Se-Te-Bi$ thin films*”, Applied Physics A **90** (2008) 149
17. P. Kumar, **J. Kumar** and R. Thangaraj “*Phase separation phenomenon in $Sn-Sb-Se$ glassy semiconductors*” Eur. Phys. J. Appl. Phys. **38** (2007) 1

Proceedings:

18. G Kumar, A Kumar, **J Kumar**, S. Singh, V Walia, “*Indoor radon measurement in the some houses of Mandi district Himachal Pradesh, India using solid state nuclear track detectors*” International Journal Of Engineering Research and Technology(IJERT), ICSEM-2013 Conference Proceedings.

Publications@GoogleScholar

<https://scholar.google.com/citations?user=JckQB0wAAAAJ&hl=en>



Jitender Kumar

Assistant Professor of Physics
Material Science
Nano Particles

	All	Since 2017
Citations	276	175
h-index	9	6
i10-index	8	4

TITLE	CITED BY	YEAR
Antibacterial study of silver doped zinc oxide nanoparticles against Staphylococcus aureus and Bacillus subtilis N Sharma, J Kumar, S Thakur, S Sharma, V Shrivastava Drug Invention Today 5 (1), 50-54	121	2013
Structural and optical properties of copper doped ZnO nanoparticles and thin films S Thakur, N Sharma, A Varkia, J Kumar Advances in Applied Science Research 5 (4), 18-24	37	2014
Structural and optical study of nickel doped ZnO nanoparticles and thin films for dye sensitized solar cell applications S Thakur, J Kumar, J Sharma, N Sharma, P Kumar J. Optoelectron. Adv. Mater 15 (7-8), 989-994	21	2013
Effect of composition and light intensity on the electrical properties of Sn-Sb-Se glassy films P Kumar, J Kumar, M Ahmad, R Thangaraj Applied Physics A 90 (3), 469-473	16	2008
Soil gas radon-thoron monitoring in Dharamsala area of north-west Himalayas, India using solid state nuclear track detectors G Kumar, A Kumar, V Walia, J Kumar, V Gupta, T YANG, S Singh, ... Journal of Earth System Science 122 (5), 1295-1301	14	2013
Electrical and optical properties of Sn₁₀Sb₂₀- xBi_xSe₇₀ (0 ≤ x ≤ 8) glassy films M Ahmad, J Kumar, R Thangaraj Journal of non-crystalline solids 355 (48-49), 2345-2348	13	2009
Optical and electrical studies of as-prepared and annealed Se-Te-Bi thin films N Suri, KS Bindra, M Ahmad, J Kumar, R Thangaraj Applied Physics A 90 (1), 149-151	11	2008
Kinetics of nonisothermal crystallization in Sn₁₀Sb₂₀- x Bi x Se₇₀ glassy semiconductors M Ahmad, P Kumar, N Suri, J Kumar, R Thangaraj Applied Physics A 94 (4), 933-937	10	2009
Effect of cobalt doping on physical properties of zno nanopar-ticles N Sharma, S Thakur, R Sharma, J Kumar CPUH-Res. J 1, 47-51	9	2016
Synthesis and characterization of silver doped zinc oxide nanoparticles and their antifungal activity against aspergillus brasiliensi and candida albicans J Kumar, V Shrivastava, S Thakur	7	2013

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Advanced Science Focus 1 (4), 346-350		
Phase separation phenomena in Sn-Sb-Se glassy semiconductors P Kumar, J Kumar, R Thangaraj The European Physical Journal-Applied Physics 38 (1), 1-5	6	2007
Phase transformation in Pb: GeSbTe chalcogenide films J Kumar, P Kumar, M Ahmad, R Chander, R Thangaraj, TS Sathiaraj The European Physical Journal-Applied Physics 44 (2), 117-123	4	2008
Phase segregation in Pb: GeSbTe chalcogenide system J Kumar, M Ahmad, R Chander, R Thangaraj, TS Sathiaraj The European Physical Journal Applied Physics 41 (1), 13-18	4	2008
Influence of Sn substitution on amorphous to crystalline phase transformation in Ge₂₂Sb₂₂Te₅₆ chalcogenide films J Kumar, R Thangaraj, T Stephen Sathiaraj Journal of Optoelectronics and Advanced Materials 14 (5), 455	2	2012
Soil-gas radon monitoring in Hamirpur District of Himachal Pradesh, NW-Himalaya, India R Bhadwal, N Thakur, J Kumar, G Kumar, Y Sharma CPUH-Research Journal 2, 152-155	1	2017
Effect of natural radionuclide's in the environment along the Jwalamukhi thrust of Himachal Pradesh, North West Himalayas, India N Thakur, R Bhadwal, J Kumar, M Kaur, R Mehra, A Kumar Environmental Geochemistry and Health, 1-11		2021
Synthesis characterization and antibacterial study of co doped copper oxide nanoparticles N Thakur, J Kumar Hamirpur		2018
Radioactivity Measurements along Jwalamukhi Thrust in Himachal Pradesh, India Naveen Thakur, Jitender Kumar, Babita Thakur, Reetika Bhadwal, K. C. Thakur ... CPUH-Research Journal 1 (2), 23-27		2015
Structural and Optical Properties of Nickel Doped ZnO Nanoparticles and Thin Films S. Thakur, J. Kumar, J. Sharma, N. Sharma, P. Kumar JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS 15 (7-8), 989-994		2013
Measurement of anomalies in the spatial distribution of radon content of soil gas in some regions of Middle Shivaliks, India S Sharma, J Kumar, U Bhardwaj, R Bhardwaj, A Kumar, A Kumar, S Dhar Proceedings of the international conference on radiation environment ...		2012
Measurement of radon concentration in ground water of some regions of Kullu, Mandi and Kangra districts of Himachal Pradesh, using active technique (RAD7), India S Sharma, J Kumar, U Bhardwaj, R Bhardwaj, M Kumar, N Pal, A Kumar, ...		2011

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Effect of composition on optical constants of Pb: GeSbTe chalcogenide thin films J Kumar, P Kumar, N Suri, M Ahmad, R Thangaraj, TS Sathiaraj Optoelectronics and Advanced Materials, Rapid Communications 2 (10), 635-639		2008
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