

Dr. Neha Sharma

Assistant Professor, Department of Physics,
Sardar Patel University, Mandi (HP)

E-mail: nehasharma@spumandi.ac.in

Mobile: +91-8219448995, 9736527908



CAREER OBJECTIVE

Seeking to utilize my skills and experience in area of Teaching and Research and thereby to promote a positive atmosphere, higher quality education among students. Strive constantly to upgrade my knowledge and skills that brings a professional growth for me while being resourceful, innovative and flexible.

RESEARCH AND SKILL AREA

- **Interest area:** Chalcogenide glasses, Chalcogenide nano composites, Structural characterization, Optical characterization, Dielectric characterization, Thermal characterization.
- **Experimental expertise:** Preparation of amorphous material by Melt Quenching Technique, Preparation of thin films by Thermal Deposition, XRD analysis, Thermal analysis by DSC System, Ultraviolet Visible Spectroscopy, FESEM data analysis, I-V measurements and Dielectric data analysis.
- **Machine operating Experience:** Impedance Analyser (WAYNE KERR 6500B), Keithley 6487 source meter.
- **Teaching experience:** 3 semester teaching assistance in M.Sc. Lab.
- **Research experience:** 7 Years research experience in experimental physics in material science lab HPU, Shimla, India.

EDUCATIONAL QUALIFICATION

- Ph.D. in Physics from Himachal Pradesh University, Shimla, 2020
- M.Phil. in Physics from Himachal Pradesh University, Shimla, 2013
- M.Sc in Physics from Himachal Pradesh University, Shimla, 2010
- B.Ed from Himalayan Group of Institutions, Kala Amb, Himachal Pradesh University, Shimla, 2008
- B.Sc from Govt. P G college Nahan, Himachal Pradesh University, Shimla ,2007

FELLOWSHIPS: UGC-BSR Junior Research Fellowship (2014-16)
UGC-BSR Senior Research Fellowship (2017-19)

PUBLICATIONS

1. "Crystallization Study of Pb Additive Se-Te-Ge Nanostructured Alloys using Non- isothermal Differential Scanning Calorimetry", Balbir Singh Patial, **Neha Sharma**, Suresh Bhardwaj and Nagesh Thakur, *Nanofabrication*, 7 (2022), <https://doi.org/10.37819/nanofab.007.195>.
2. "Dielectric study and AC conductivity measurements of Pb additive Se-Te--Ge nano-chalcogenide alloys", **Neha Sharma**, B.S. Patial and Nagesh Thakur, *Journal of electronic materials*, **48** (2019) 7089.
3. "On the optical properties of (Se₈₀Te₂₀)_{94-x}Ge₆Pb_x (x = 0, 2, 4 and 6) nano - crystalline quaternary alloys", **Neha Sharma**, B.S. Patial, Pankaj Sharma and Nagesh Thakur, *Journal of Optoelectronic and Advanced Materials*, **20** (2018)435.
4. "Structural analysis and theoretical investigations in Pb additive Se–Te–Ge chalcogenide nano-composites", **Neha Sharma**, Balbir Singh Patial and Nagesh Thakur, *Indian journal of pure & applied physics*, **56**(2018) 128.
4. "On the dielectric study and ac measurements of Sb additive Se-Te system", **Neha Sharma**, B.S. Patial and Nagesh Thakur, *Appl. Phys.* **A122** (2016) 209.
5. "Estimation of T_g for Se-Te-Sb System using Modified Gibbs-DiMarzio Law", Balbir Singh Patial, **Neha Sharma**, Nagesh Thakur, S.K.Tripathi, *International Journal of Engineering Research & Technology*,**3** (2014) 910-912.
6. "Study of the Physical Properties with Compositional Dependence of Sb Content in Se-Te-Sb Glassy System", B.S. Patial, **Neha Sharma**, Nagesh Thakur, S.K. Tripathi, *International Journal of Advanced Research in Physical Science*,**1** (2014) 9-16.
8. "Dielectric Properties and AC Conductivity Measurements of Amorphous Ge₁₅Se₈₅ Glass", Balbir Singh Patial, Neha Sharma, Jai Prakash, Rajesh Kumar, S.K. Tripathi, Nagesh Thakur, *Journal of Nano- And Electronic Physics***5**(2013) 02019.

PAPERS PRESENTED IN CONFERENCE

1. "Dielectric Measurements of Ge₁₀Se₉₀ Glass", **Neha Sharma**, B.S. Patial, S. K. Tripathi and Nagesh Thakur.

In: proceeding of the 59th DAE Solid State Physics Symposium 2014 published by AIP Conf. Proc. **1665** (2015) 070028.

2. "Dielectric study of (Se₈₀Te₂₀)₉₄Ge₆ Chalcogenide glass", **Neha Sharma**, B. S. Patial and Nagesh Thakur.

In: proceeding of the 62nd DAE Solid State Physics Symposium 2017 published by AIP Conf. Proc. **1942** (2018) 070008.

WORKSHOPS / SEMINARS

1. A workshop in frontiers in physics AAFP-2017, Himachal Pradesh University, Shimla, India, 17-18 March 2017.
2. Two days National Workshop on Ion Beam Induced Growth and Engineering of Materials, Kurukshetra University, Kurukshetra, India, 11-12 March, 2014