

PUBLICATIONS AND PRESENTATIONS

List of Chapter in Book

- Cognitive Data Models for Sustainable Environment. Bhattacharyya, Siddhartha; Mondal, Naba Kumar; Mondal, Koushik; Singh, Jyoti Prakash; Prakash, Kolla Bhanu, “Community approach toward disaster resilience”, Publisher: Academic Press, Elsevier 978-0-12-824038-0 September 19, 2021

Paperback ISBN: 9780128240380, eBook ISBN: 9780128240397

- Sharma, S., Kumar, V., Saruchi (2023). Nanotechnology for Green and Clean Technology: Recent Developments. In: Shanker, U., Hussain, C.M., Rani, M. (eds) Handbook of Green and Sustainable Nanotechnology. Springer International Publishing, Cham. ISSN- 978-3-030-69023-6 https://doi.org/10.1007/978-3-030-69023-6_61-1, 5/18/2023 ISBN--9783031161001

List of International Publications (11)

- Surbhi Sharma., **Neetu Verma**, & **C. K. Jayasankar**, (2026). Comprehensive Study of Thermal, Optical, and Photoluminescence Properties of Pr³⁺-Doped Borotellurite Glasses for Optical Amplifiers. *Physica B: Condensed Matter*, 418637.
- Surbhi Sharma, Neetu Verma, C. K. Jayasankar (2025) “**Advancing Waveguide Laser Performance: An In-Depth Analysis of the Physical, Thermal, and Spectroscopic Properties of Sm³⁺-Doped Borotellurite Glasses**” Volume40, Issue5, May 2025, e70182. <https://doi.org/10.1002/bio.70182>

Impact factor 3.2

- Surbhi Sharma, Neetu Verma, (2025) “Optimizing gamma radiation shielding in Pr³⁺ doped boro-tellurite glasses: a study of attenuation properties and performance”, *Journal of Physics: Conference Series*, Volume 2944, The 13th Global Conference on Materials Science and Engineering (CMSE 2024) 17/11/2024 - 20/11/2024 Kampar, Malaysia *J. Phys.: Conf. Ser.* 2944 012009, ISSN-1742-6596

DOI 10.1088/1742-6596/2944/1/012009

- Surbhi Sharma, Neetu Chopra, Sandeep Kaur (2023) “ Investigation of Dysprosium incorporated Potassium Boro-Tellurite glasses towards radiation screening and photonic applications”, *Physica status solidi (a) applications and materials science* , Article DOI: 10.1002/pssa.202200715 ISSN-1862-6300 (print) and 1862-6319 (online)

Impact factor 2.170.

- Neetu Chopra, Sandeep Kaur, O P Pandey, Gopi Sharma, Surbhi Sharma, (2021) “Physical, optical and structural characterizations of Dy³⁺-doped lead borate glasses” IOP Conference Series: Materials Science and Engg. 1114 012098.
- Amit Sethi, Surbhi Sharma, Amit Sarin, Rajesh Kumar, Navjeet Sharma (2018), “Optical Characterisation of amorphous Se–Te–Sn thin films”, Applied Physics A, 124:830, ISSN: 0947-8396, **Impact factor 1.784.**
- Surbhi Sharma, Amit Sarin, Navjeet Sharma (2018), “Influence of compositional variations on optoelectrical properties of Ge₂₀Sn₁₀Se_{70-x}Te_x glass system”, Opt. Eng. 57(11), 117110, (ISSN-0091-3286) **Impact factor 1.209.**
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, (2017) “Influence of Sb substitution on thermal and electrical characteristics of Ge-Sn-Se chalcogenide glass system”, IOP Conference Series: Materials Science and Engg. 283, pp. 1-12. (ISSN- 17578981) **Impact factor 0.32.**
- Navjeet Sharma, Surbhi Sharma, Amit Sarin, Rajesh Kumar (2016) “Effect of Sb addition on linear and non-linear optical properties of amorphous Ge–Se–Sn thin films”, Journal of optical materials, 51, pp. 56-61. **Impact factor 2.238** (Elsevier) (ISSN - 0925-3467).
- Surbhi Sharma, Rajesh Kumar, Amit Sarin, Navjeet Sharma (2014) “Thermal and optical characterization of Ge-Sn-Se glass system”, Applied Physics A: Material Science and Processing, 118,4, pp.1551-1557– **Impact factor 1.69** (Springer) (ISSN-0947-8396)
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, (2013), “Effect of Partial replacement of Se by Ge on the physical parameters of Ge-Sn-Se glass system”, Journal of Ovonic Research, 9, pp.167. (ISSN-1842-2403) **Impact factor 0.698.**

List of National Publications (2)

- Surbhi Sharma, Amit Sarin, Navjeet Sharma, (2015) “Chalcogenide Glasses – A new ray of hope in modern technology”, International Journal of Engineering Technology, Management and Applied Sciences, Special Issue, 3, pp. 372-375. (ISSN-2349-4476).
- Surbhi Sharma, Amit Sarin, Navjeet Sharma (2014) “Effect Of Compositional Variation Of The Physical Parameters Of Ge-Se-In Glass System”, i-manager’s Journal of Material Sciences, Vol 2 (1), pp. 1-6. (ISSN- 2347-2235) **Impact factor 0.334.**

List of National Conferences (7)

- Surbhi Sharma, Amit Sarin, Navjeet Sharma, "Electrical and other properties of Chalcogenide Glasses", Bhartiya Vigyan Sammelan (BVS 2014), LPU, India, oct 2-3, 2012.
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, "Effect of Compositional Variation of the Physical Parameters of Ge-Se-In Glass System", National Conference on Advances in Material Sciences, ACET, Amritsar, April 4-5, 2014.
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, "Improvement of Electrical properties of ternary Ge-Sn-Se chalcogenide thin films by the Sb addition" STEHM, 3rd DAV National Congress, DAVIET, India, May 20-21, 2016.
- Surbhi Sharma, "Emergence of Te based chalcogenide glasses on infrared transmitting optics in defense applications" **104th Indian Science Congress**, SV University, Tirupati, Andhra Pradesh, Jan 3-7, 2017.
- Surbhi Sharma, Navjeet Sharma "Derivation of Optical Constants of Thermally – Evaporated Uniform Films of Se Based Ternary Chalcogenide Glasses", Multidisciplinary National Conference on Science & Technology for a Sustainable Future, DAV College, Jalandhar, March 06-07, 2020.
- Anaya, Tanvi, Surbhi Sharma, Neetu Verma, "Physical, Thermal and Optical analysis of Dysprosium doped Boro-Tellurite Glasses", National Conference on Recent Advances in Science and Technology for Sustainable Development organized by DAV College, Bathinda, March 5, 2022
- Surbhi Sharma, Neetu Verma, Anchal Pathania "Influence of Dy doping on the properties of alkali doped boro tellurite glasses: Structural, Optical and thermal insight": National Conference on Frontiers of Theoretical and Experimental Physics, DAV College, Jalandhar Sept 18-19, 2024.

List of Inter-National Conferences (13)

- Surbhi Sharma, Amit Sarin, Navjeet Sharma, "Theoretical Study of the Physical parameters of the Quaternary $\text{Te}_{10}\text{Ge}_{10}\text{Se}_{80-x}\text{Sn}_x$ ($x = 0, 4, 8, 12, 16$) Chalcogenide Glass System", *International multitrack conference IMTC-2014, Vol-2*, CTIEMT, India, june 3-4, 2014, pp. 391-396.
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, "Effect of Sb addition on the physical properties of Ge-Se glass system", International Conference on Advancements in Engineering & Technology (ICAET-2014), BGIET, Sangrur, Feb 21-22, 2014.
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, (2015), "Effect on Physical Parameters of Ge-Sn-Se Glass System with Compositional Variations", *IMTC-2015, Vol-2*, CTIEMT, India, pp. 284-288.

- Surbhi Sharma, Amit Sarin, Navjeet Sharma, (2015) “Chalcogenide Glasses – A new ray of hope in modern technology”, Engineering, Science and Management (ESM-15), Vol. 2, Sept 20, 2015, McGraw Hill (India) Pvt. Ltd., JNU, Delhi, pg. 268-272.
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, “Study of Electrical conductivity of ternary Ge-Sn-Se chalcogenide thin films by Sb addition” International Conference on Sciences, Engineering & Technical Innovations (ICSETI-2016), CTIT, India, June 3-4, 2016.
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, “Effect of partial replacement of Se by Sb on the physical properties of Ge-Sn-Se-Sb quaternary chalcogenide glasses”, 3rd IMTC 2017, CTIEMT, India, pp. 1-3 (ISBN- 978-81-929077-7-2).
- Surbhi Sharma, Amit Sarin, Navjeet Sharma, “Effect of Te additive on thermal stability and glass forming tendency of Ge-Sn-Se chalcogenide glass system”, International conference on science and technology research, **Universtat Pompeu Fabra, Barcelona, Spain**, Sept 3-4, 2018.
- Surbhi Sharma, Navjeet Sharma, Amit Sarin, “Thermal Study of Se based Chalcogenide Glasses using Non Isothermal Technique”, 4th International Multi Track Conference on Science, Engineering and Technical Innovation (**IMTC 2018**), CT Institute of Engineering, Management and Technology, Shahpur on 5-6 Oct, 2018.
- Surbhi Sharma, Navjeet Sharma, “Effect of partial substitution of Sb on thermophysical properties of Se based chalcogenide glasses”, International conference on Science, Engineering & Technology (ICSET) which was organized by ResearchFora ,Toronto, Canada, Nov 28-29, 2019, pp. 51-56 (ISBN- 978-93-89469-92-9).
- Surbhi Sharma, Neetu Verma, “Absorption and emission analysis of boro-tellurite glass doped with dysprosium oxide”, 2nd International Conference On “Functional Materials & Simulation Techniques - 2022”, Chandigarh University, Jan 10 to Jan 11, 2022
- Surbhi Sharma, Neetu Verma “*Optimizing Gamma Radiation Shielding in Pr³⁺ Doped Boro-Tellurite Glasses: A Study of Attenuation Properties and Performance*’ participation in the 13th Global Conference on Materials Science and Engineering (CMSE 2024), organized by the Faculty of Engineering and Green Technology (FEGT), **Universiti Tunku Abdul Rahman, held from November 17 to 20, 2024**, in Kampar, Perak, **Malaysia**.
- Surbhi Sharma, Neetu Verma, Anchal Pathania “Analysis of enhancement in gamma ray shielding proficiency with samarium doping in potassium Boro-tellurite glass system”. in the International conference on Science, Technology and Applications of RareEarth. ICSTAR 2025. Jointly organized by Rare Earth Association of India, Mumbai, Department of Physics, Sri Venkateshwar University, Tirupati, Department of Biotechnology, Sri Padmavati Mahila Visvavidyalayam, Tirupati, April 21-23, 2025.

- Sharma, S., & Verma, N. (2025). Optimizing gamma radiation shielding in Pr³⁺ doped borotellurite glasses: a study of attenuation properties and performance. In *Journal of Physics: Conference Series* (Vol. 2944, No. 1, p. 012009). IOP Publishing.