

1. Publications (List of papers published in SCI Journals).

S. No	Authors(s)	Title	Name of Journal	Volume	Page	Year
1.	Raghubir Prajapati, Achchhe Lal Saroj, H.Kumar	Formation of silver particles in [PVA:CS:PEG]-AgNO ₃ based biopolymer electrolyte membranes: Structural and electric transport properties study	Physica B:Condensed Matter	662(1)	414962	2023
2.	R. Ansari, Devanand Gupta, Pankaj K. Mishra, A.L. Saroj, H. Kumar	Thermal, optical, dielectric and electrical transport properties of nano-structured Se _{95-x} In ₅ Pr _x (x =2, 4, and 6) glassy alloys	Ceramics International	49	33214-33225	2023
3.	Rafiullah Ansari, Devanand Gupta, Horesh Kumar	Structural, dielectric and electrical properties of Se _{96-x} Sn ₄ Sb _x (x = 0, 2, 4, 6, and 8) glassy alloys	Journal of Alloys and Compounds	936	168336	2023
4	A. Dehshan, H. Kumar , N. Mehta	Role of some modifiers on the therm-mechanical properties of Se ₉₀ In ₁₀ chalcogenide glass (ChGs).	European Physical Journal Applied Physics	93	61101	2021
5.	Pankaj K Mishra, H. Kumar	Thermal Transport and Electrical properties of Se _{95-x} Sn ₅ Bi _x (x=0, 4, 8) chalcogenide alloys	,Journal of Non-Crystalline-Solids	541	1200071	2020

6.	R. Ansari, H. Kumar	Calorimetric study of crystallization kinetics in ternary alloys of Se–Te–Sn glasses using iso-conversional approach	Sociedad Española de Cerámica y Vidrio (Journal of the Spanish Ceramic and Glass Society)	59	267-272	2020
7.	P. Singh, D. C. Bharati, H. Kumar and A. L. Saroj	Ion transport mechanism and dielectric relaxation behavior of PVA-imidazolium ionic liquid-based polymer electrolytes,	Physica Scripta	94	105801 (9pp)	2019
8.	P. K. Mishra, A. N. Upadhyay, K. Singh, and H. Kumar	Structural Origin of Optical Band Edge Shift in $\text{Se}_{70}\text{Ge}_{30-x}\text{Bi}_x$ ($0 \leq x \leq 10$) Glassy Alloys	Chemistry Select	4	6833 –6843	2019
9.	P. K. Mishra, K. Singh, A.N. Upadhyay, H. Kumar ,	Compositional dependence of thermal transport and optical properties of $\text{Se}_{85}\text{Ge}_{15-x}\text{Pb}_x$ ($0 \leq x \leq 10$) chalcogenide glassy alloys	Optical Materials	97	109395	2019
10.	D C Bharati, H Kumar and A L Saroj	Chitosan-PEG-NaI based bio-polymer electrolytes: structural, thermal and ion dynamics studies, D C Bharati,	Mater. Res. Express	9	125360 (12pp)	2019
11.	H. Kumar , N. Chandel and N.Mehta	Role of Bi incorporation on glass transition kinetics in glassy $\text{Se}_{78}\text{Te}_{20}\text{Sn}_2$ alloy	Phase transitions	89 (11)	1103-1118	2016
12.	H. Kumar , A. Sharma and N. Mehta	Effect of Tin incorporation on thermo-mechanical properties of glassy $\text{Se}_{80}\text{Te}_{20}$ alloy.	Chin. Phys. Lett.	31	03621(3pages)	2014

13.	H. Kumar, A. Sharma and N. Mehta	Study of thermo-mechanical properties in glassy Se and Se ₉₈ M ₂ (M = In, Sb, Sn) Alloys.	Materials Letters.	121	194-197	2014
14.	A. Sharma, H. Kumar & N. Mehta	Calorimetric Study of Specific heat in glassy Se-Te-Sn-Bi System using MDSC Technique: effect of Bi incorporation.	Phase transition.	86	971-976	2013
15.	H. Kumar and N. Mehta	Thermal characterization of glassy Se _{78-x} Te ₂₀ Sn ₂ Pb _x (0 ≤ x ≤ 6) alloys for phase change optical recording technique.	Glass Physics and Chemistry.	39(5)	490-498	2013
16.	H. Kumar and N. Mehta	Kinematical Studies of thermal crystallization in glassy Se _{78-x} Te ₂₀ Sn ₂ Bi _x (0 ≤ x ≤ 6) alloys.	Journal of Advance Physics.	2(3)	163-169	2013
17.	H. Kumar, A. Sharma and N. Mehta	Effect of Lead incorporation on some thermo-mechanical properties of glassy Se ₇₈ Te ₂₀ Sn ₂ alloy.	Materials Focus.	2(2)	184-187	2013
18.	H. Kumar and N. Mehta	Calorimetric study of thermal crystallization kinetics in Se _{78-x} Te ₂₀ Sn ₂ Pb _x (0 ≤ x ≤ 6) alloys.	The European Physical Journal Applied Physics	62	20106(7pages)	2013
19.	A. Sharma, H. Kumar & N.Mehta	Composition dependence of specific heat in Se _{80-x} Te ₂₀ Sn _x chalcogenide glasses	Glass physics and chemistry	39(4)	372-376	2013

20.	H. Kumar, A. Sharma and N.Mehta	Effect of Bismuth incorporation on some thermo-mechanical properties of glassy $\text{Se}_{78}\text{Te}_{20}\text{Sn}_2$ alloy.	Journal of Optoelectronics and Advanced Materials,	14	899-904	2012
21.	A. Sharma, H. Kumar &N. Mehta	Determination of specific heat in multi- component chalcogenide glasses of Se-Te-Sn-Pb system using modulated differential Scanning calorimetry.	Material letters	86	54-57	2012
22.	H. Kumar and N. Mehta	Kinetic parameters of glass transition and crystallization for glassy Se and glassy Se_{98}M_2 (M = In, Sb and Sn) alloys.	Materials Chemistry and Physics.	134	834-838	2012
23.	H. Kumar, N. Mehta & A.Kumar	Effect of some chemical modifiers on the glass / crystal transformation in binary $\text{Se}_{90}\text{In}_{10}$ alloy.	Journal of Thermal Analysis and Calorimetry.	103	903-909	2011
24.	H. Kumar, N. Mehta& K. Singh	Calorimetric studies of thermal crystallization in glassy $\text{Se}_{80-x}\text{Te}_{20}\text{Sn}_x$ ($0 \leq x \leq 10$) alloys.	Physica Scripta	83	065602(5 pages)	2011
25.	H. Kumar, N. Mehta, K. Singh & N. S. Saxena	Effect of Lithium ion-irradiation on glass transition kinetics of glassy $\text{Se}_{98}\text{In}_2$ alloy.	Phase Transitions	83	1-9	2010
26.	H. Kumar, N. Mehta & K.Singh	Calorimetric studies of glass transition phenomenon in glassy $\text{Se}_{80-x}\text{Te}_{20}\text{Sn}_x$ alloys.	Physica Scripta,	80	065602	(2009)

27	H. Kumar , N. Mehta, K. Singh & A. Kumar	Composition dependence of thermal stability, micro hardness and compactness in glassy $\text{Se}_{90}\text{In}_{10-x}\text{Ge}_x$ Alloys.	Physica- B	404	3761-3765	2009
28.	H. Kumar , N. Mehta, K. Singh & N. S. Saxena	Effect of Lithium ion-irradiation on crystallization kinetics of glassy $\text{Se}_{98}\text{In}_2$ alloy,	Philosophical Magazine Letters.	89	126-135.	(2009)

2. Papers in conference:

S.N.	Type	Level	Name of Conference/Seminar	Title of Paper/Lecture	Start Date	End Date
1.	Paper presentation in Seminar/Conference	International (within country)	ICFS-2015	A comparative study of crystallization kinetics of $\text{Se}_{98}\text{Sn}_2$. using Isoconversional methods	10-01-2015	12-01-2015
2.	Paper presentation in Seminar/Conference	International (within country)	NMES-2014	Calorimetric study of thermal crystallization kinetics in $\text{Se}_{78-x}\text{Te}_{20}\text{Sn}_2\text{Pb}_x (0 \leq x \leq 6)$	12-03-2014	14-03-2014
3.	Paper presentation in Seminar/Conference	International (within country)	IU-IWSANS 2013	Calorimetric study. in $\text{Se}_{78-x}\text{Te}_{20}\text{Sn}_2\text{Pb}_x$ alloys	18-01-2013	20-01-2013
4.	Paper presentation in Seminar/Conference	National	AICON12	Study of glass transition kinetics of quaternary Se-Te-Sn system	20-01-2012	21-01-2012
5.	Paper presentation in Seminar/Conference	International (within country)	Multifunctional Materials (ICMM-210)	Comparative analysis---DSC technique	07-12-2010	09-12-2010

3. Chapter in Books:01

4. PhD Supervision:

(i)No. of student awarded under supervision: 02

(ii) No. of student working under supervision: 06

5. Project as PI: 01