

# Pankaj Sharma

## List of Publications by Year in descending order

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117  
papers

2,757  
citations

159585

30  
h-index

214800

47  
g-index

119  
all docs

119  
docs citations

119  
times ranked

1785  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ferrimagnetic Ni doped Mg-Zn spinel ferrite nanoparticles for high density information storage. Journal of Alloys and Compounds, 2017, 704, 7-17.	5.5	166
2	Improvement in magnetic behaviour of cobalt doped magnesium zinc nano-ferrites via co-precipitation route. Journal of Alloys and Compounds, 2016, 684, 569-581.	5.5	158
3	Multifunctional CZTS thin films: Structural, optoelectrical, electrical and photovoltaic properties. Journal of Alloys and Compounds, 2018, 757, 124-133.	5.5	128
4	Determination of optical parameters of a-(As <sub>2</sub> Se <sub>3</sub> ) <sub>90</sub> Ge <sub>10</sub> thin film. Journal Physics D: Applied Physics, 2007, 40, 2115-2120.	2.8	121
5	Recent developments on the optical properties of thin films of chalcogenide glasses. Progress in Solid State Chemistry, 2016, 44, 131-141.	7.2	89
6	Superparamagnetic La doped Mn-Zn nano ferrites: dependence on dopant content and crystallite size. Materials Research Express, 2016, 3, 075001.	1.6	81
7	Enhancement in A-B super-exchange interaction with Mn substitution in Mg-Zn ferrites as a heating source in hyperthermia applications. Ceramics International, 2017, 43, 13661-13669.	4.8	79
8	Linear and nonlinear refractive index of As <sub>2</sub> Se <sub>3</sub> Ge and Bi doped As <sub>2</sub> Se <sub>3</sub> Ge thin films. Journal of Applied Physics, 2010, 107, .	2.5	71
9	Gd doped Mn-Zn soft ferrite nanoparticles: Superparamagnetism and its correlation with other physical properties. Journal of Magnetism and Magnetic Materials, 2017, 432, 208-217.	2.3	68
10	Effect of compositional dependence on physical and optical parameters of Te <sub>17</sub> Se <sub>83-x</sub> Bi glassy system. Journal of Alloys and Compounds, 2016, 667, 204-210.	5.5	66
11	Far-infrared transmission and bonding arrangement in Ge <sub>10</sub> Se <sub>90-x</sub> Te <sub>x</sub> semiconducting glassy alloys. Journal of Non-Crystalline Solids, 2008, 354, 3836-3839.	3.1	64
12	Nanomaterials for high frequency device and photocatalytic applications: Mg-Zn-Ni ferrites. Journal of Alloys and Compounds, 2018, 746, 532-539.	5.5	57
13	New quaternary Ge <sub>2</sub> Se <sub>2</sub> Sb <sub>2</sub> Ag optical materials: Blue shift in absorption edge and evaluation of optical parameters. Journal of Alloys and Compounds, 2014, 616, 323-327.	5.5	50
14	Effect of tellurium addition on the physical properties of germanium selenide glassy semiconductors. Physica B: Condensed Matter, 2008, 403, 3667-3671.	2.7	49
15	Effect of tin addition on the optical parameters of thermally evaporated As <sub>2</sub> Se <sub>3</sub> Ge thin films. Materials Chemistry and Physics, 2008, 112, 892-897.	4.0	48
16	Structural, morphological, magnetic and optical study of co-precipitated Nd <sup>3+</sup> doped Mn-Zn ferrite nanoparticles. Journal of Magnetism and Magnetic Materials, 2019, 479, 317-325.	2.3	48
17	Linear and non-linear optical properties of Ag-doped Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> thin films estimated by single transmission spectra. Semiconductor Science and Technology, 2017, 32, 045015.	2.0	46
18	Recent developments on the synthesis, structural and optical properties of chalcogenide quantum dots. Solar Energy Materials and Solar Cells, 2017, 168, 183-200.	6.2	46

#	ARTICLE	IF	CITATIONS
19	Structural and optical properties of MnZnFeO nano ferrites: Effect of sintering temperature. Materials Chemistry and Physics, 2017, 193, 285-289.	4.0	45
20	Thickness dependence of optical parameters for Ge <sup>1-x</sup> Se <sup>x</sup> Te thin films. Materials Letters, 2007, 61, 4516-4518.	2.6	42
21	CdS nanofilms: Synthesis and the role of annealing on structural and optical properties. Journal of Applied Physics, 2012, 111, .	2.5	40
22	Far-infrared investigation of ternary Ge <sup>1-x</sup> Se <sup>x</sup> Sb and quaternary Ge <sup>1-x</sup> Se <sup>x</sup> Sb <sup>1-x</sup> Te chalcogenide glasses. Journal of Non-Crystalline Solids, 2013, 375, 114-118.	3.1	40
23	Analysis of chemical ordering and fragility for Ge <sup>1-x</sup> Se <sup>x</sup> In glasses. Applied Physics A: Materials Science and Processing, 2015, 120, 137-143.	2.3	39
24	CdS nanofilms: Effect of film thickness on morphology and optical band gap. Journal of Applied Physics, 2012, 112, .	2.5	38
25	Optical study of Ge <sub>10</sub> Se <sub>90</sub> <sup>x</sup> Te <sub>x</sub> glassy semiconductors. Thin Solid Films, 2007, 515, 7966-7970.	1.8	37
26	Effect of Te on linear and non-linear optical properties of new quaternary Ge-Se-Sb-Te chalcogenide glasses. Electronic Materials Letters, 2014, 10, 101-106.	2.2	36
27	Semiconducting quaternary chalcogenide glasses as new potential thermoelectric materials: an As <sup>1-x</sup> Ge <sup>x</sup> Se <sup>1-x</sup> Sb case. Dalton Transactions, 2015, 44, 14799-14804.	3.3	34
28	Investigation of dispersion parameters, dielectric properties and optoelectrical parameters of ZnO thin film grown by ALD. Optik, 2020, 203, 163933.	2.9	34
29	Far-infrared study of amorphous Ge <sub>0.17</sub> Se <sub>0.83</sub> <sup>x</sup> Sb <sub>x</sub> chalcogenide glasses. Journal of Alloys and Compounds, 2009, 480, 934-937.	5.5	33
30	Effect of substrate temperature on the optical parameters of thermally evaporated Ge <sup>1-x</sup> Se <sup>x</sup> Te thin films. Thin Solid Films, 2009, 517, 3813-3816.	1.8	32
31	Optical band gap tuning of Ag doped Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> thin films. Journal of Materials Science: Materials in Electronics, 2017, 28, 11300-11305.	2.2	31
32	Chemical ordering and electronic properties of lone pair chalcogenide semiconductors. Progress in Solid State Chemistry, 2019, 54, 31-44.	7.2	30
33	Optical analysis of Ge <sub>19</sub> Se <sub>81</sub> <sup>x</sup> Sb <sub>x</sub> thin films using single transmission spectrum. Materials Chemistry and Physics, 2012, 136, 967-972.	4.0	29
34	Effect of antimony addition on the optical behaviour of germanium selenide thin films. Journal Physics D: Applied Physics, 2008, 41, 225307.	2.8	28
35	Structural transition in II-VI nanofilms: Effect of molar ratio on structural, morphological, and optical properties. Journal of Applied Physics, 2012, 111, .	2.5	26
36	Semiconducting Ge-Se-Sb-Ag chalcogenides as prospective materials for thermoelectric applications. Physica B: Condensed Matter, 2017, 526, 117-121.	2.7	26

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37	Thermal stability and crystallization kinetics of SeTeSn alloys using differential scanning calorimetry. <i>Journal of Thermal Analysis and Calorimetry</i> , 2012, 110, 1053-1060.	3.6	25
38	Finger prints of chemical bonds in SbSeGe and SbSeGeIn glasses: A Far-IR study. <i>Journal of Non-Crystalline Solids</i> , 2013, 362, 136-139.	3.1	24
39	Band gap and dispersive behavior of Ge alloyed a-SbSe thin films using single transmission spectrum. <i>Materials Chemistry and Physics</i> , 2012, 134, 158-162.	4.0	22
40	New Quaternary Sb-Se-Ge-In Chalcogenide Glasses: Linear and Nonlinear Optical Properties. <i>Journal of Electronic Materials</i> , 2013, 42, 3367-3372.	2.2	21
41	Glass-forming ability and rigidity percolation in SeTePb lone-pair semiconductors. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	21
42	Structural, morphological and temperature dependent electrical traits of Co <sub>0.9</sub> Zn <sub>0.1</sub> In <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> spinel nano-ferrites. <i>Ceramics International</i> , 2021, 47, 30902-30910.	4.8	21
43	Physical and optical properties of binary amorphous selenium-antimony thin films. <i>Journal of Applied Physics</i> , 2009, 105, 053509.	2.5	20
44	Photoinduced Effects for Amorphous Chalcogenide Semiconductors. <i>Applied Materials Today</i> , 2019, 17, 142-158.	4.3	20
45	Topological behavior and glassy framework of GeTeSeGa chalcogenide glasses. <i>Physica B: Condensed Matter</i> , 2019, 562, 100-106.	2.7	20
46	Compositional dependence of optical parameters in SeBiTeAg thin films. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 3223-3228.	3.1	19
47	High Thermoelectric Action in Vacuum Deposited Indium Alloyed Chalcogenide Thin Films: In <sub>x</sub> Se <sub>100-x</sub> . <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 3408-3413.	3.0	18
48	Role of Composition and Substrate Temperature on Nonlinear Optical Properties of GeSeTe Thin Films in 0.4–2.4 μm Wavelength Range. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 698-703.	3.0	17
49	Effect of Cd and Pb impurities on the optical properties of fresh evaporated amorphous (As <sub>2</sub> Se <sub>3</sub> ) <sub>90</sub> Ge <sub>10</sub> thin films. <i>Applied Physics B: Lasers and Optics</i> , 2009, 95, 367-373.	2.2	16
50	Dependence of structural cross-linking, system energy and transition temperature on coordination number for Sm doped GST. <i>Results in Physics</i> , 2019, 13, 102276.	4.1	16
51	Physical Analysis of Structural Transformation in Ge-Incorporated a-Sb <sub>x</sub> Se <sub>100-x</sub> System. <i>Defect and Diffusion Forum</i> , 0, 316-317, 45-53.	0.4	15
52	Thermal analysis of quaternary GeSeSbTe chalcogenide alloys. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 119, 213-218.	3.6	15
53	Class transition and crystallization kinetics analysis of SbSeGe chalcogenide glasses. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 115, 361-366.	3.6	14
54	Evaluation of optical linear and non-linear parameters of thermally deposited GeTeSeGa thin films in NIR (1.25–2.6 μm) wavelength range from their transmission spectra. <i>Optik</i> , 2020, 219, 165181.	2.9	14

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55	Effect of germanium addition on the physical properties of Se-Te glassy semiconductors. Philosophical Magazine, 2009, 89, 3027-3036.	1.6	13
56	Structural Rigidity, Percolation and Transition-Temperature Study of the Ge <sub>19</sub> Se <sub>81-x</sub> Sb <sub>x</sub> System. Defect and Diffusion Forum, 0, 316-317, 37-44.	0.4	13
57	Kinetic studies of bulk Se <sub>92</sub> Te <sub>8</sub> Sn <sub>x</sub> (x=0, 1, 2, 3, 4 and 5) semiconducting glasses by DSC technique. Journal of Thermal Analysis and Calorimetry, 2012, 109, 177-181.	3.6	13
58	Mn <sup>2+</sup> Doped Mg-Zn Ferrite Nanoparticles for Microwave Device Applications. IEEE Electron Device Letters, 2018, 39, 901-904.	3.9	13
59	Effect of deposition parameters on the optical energy gap and refractive index of a-Ge-Se-Te thin films. Philosophical Magazine, 2008, 88, 2549-2557.	1.6	12
60	Improvement in the linear and nonlinear optical properties of Mn-doped GeSe <sub>2</sub> chalcogenide thin films for all optical applications. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	11
61	Redshift in Absorption Edge of Cd <sub>1-x</sub> Co <sub>x</sub> Nanofilms. IEEE Nanotechnology Magazine, 2014, 13, 343-348.	2.0	10
62	Assessment of physical parameters for quaternary antimony substituted Ge-Se-Te alloys. Glass Physics and Chemistry, 2015, 41, 175-179.	0.7	10
63	Synthesis and Thermal Properties of Polyaniline-TiO <sub>2</sub> nanocomposites PVA Based Film. Materials Today: Proceedings, 2015, 2, 2215-2225.	1.8	10
64	Electronic transport properties of (Se <sub>80</sub> Te <sub>20</sub> ) <sub>100-x</sub> Zn <sub>x</sub> (2 ≤ x ≤ 6) chalcogenide alloys. Physica B: Condensed Matter, 2019, 555, 41-46.	2.7	10
65	Study of Tauc gap, optical density and penetration depth of vacuum evaporated Pb <sub>15</sub> Se <sub>85-x</sub> Gex (x=0, 3). Proceedings, 2020, 28, 402-407.	1.8	10
66	A study of Sn addition on bonding arrangement of Se-Te alloys using far infrared transmission spectroscopy. Journal of Applied Physics, 2011, 110, .	2.5	9
67	Effect of antimony addition on thermal stability and crystallization kinetics of germanium-selenium alloys. Journal of Non-Crystalline Solids, 2013, 371-372, 1-5.	3.1	9
68	Thermal stability and crystallization kinetics of quaternary Sb-Se-Ge-In chalcogenide glasses. Journal of Alloys and Compounds, 2014, 611, 96-99.	5.5	9
69	Phase change induced quantization in NIR emitting Ag <sub>2</sub> S nanocrystals: Structural and optical response for solar energy applications. Journal of Alloys and Compounds, 2019, 770, 1173-1180.	5.5	9
70	Applicability of different models of energy bandgap and refractive index for chalcogenide thin films. Materials Today: Proceedings, 2020, 28, 92-95.	1.8	9
71	Rare-earth (Dy)-doped (Ge <sub>2</sub> ) <sub>80</sub> (In <sub>2</sub> S <sub>3</sub> ) <sub>20</sub> thin film: influence of annealing temperature in argon environment on the linear and nonlinear optical parameters. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	9
72	Optical and mechanical properties of Ag doped thermally evaporated SeTe thin films for optoelectronic applications. Journal of Physics and Chemistry of Solids, 2021, 159, 110291.	4.0	9

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73	Optical studies of Se-Bi-Te-Sb thin films by single transmission spectrum. Glass Physics and Chemistry, 2013, 39, 276-278.	0.7	8
74	Structural, morphological and magnetic analysis of Cd <sup>2+</sup> /Co <sup>2+</sup> dilute magnetic semiconductor nanofilms. Journal of Magnetism and Magnetic Materials, 2014, 367, 1-8.	2.3	8
75	TiO <sub>2</sub> and PVA Based Polyaniline Composite Materials-A Review. Materials Today: Proceedings, 2015, 2, 2767-2775.	1.8	8
76	Effect of visible light on the structural and optical properties of (Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> ) <sub>100-x</sub> Ag <sub>x</sub> (x=0, 1 and 3) thin films. Journal of Materials Science: Materials in Electronics, 2018, 29, 1042-1047.	2.2	8
77	Optical constants of Ge-Sb-Se-I chalcogenide glasses using a single reflectance spectrum. Infrared Physics and Technology, 2019, 102, 102997.	2.9	8
78	Alloyed Ag <sub>2</sub> SexS <sub>1-x</sub> quantum dots with red to NIR shift: The band gap tuning with dopant content for energy harvesting applications. Infrared Physics and Technology, 2020, 105, 103162.	2.9	8
79	Topological analysis and glass kinetics of Se-Te-Ag lone pair semiconductors. Physica Scripta, 2021, 96, 125710.	2.5	8
80	Optical parameters of ternary Te <sub>15</sub> (Se <sub>100-x</sub> Bi <sub>x</sub> ) <sub>85</sub> thin films deposited by thermal evaporation. Physica Scripta, 2011, 84, 045703.	2.5	7
81	Multiferroic and magnetoelectric properties of MnFe <sub>2</sub> O <sub>4</sub> (Pb <sub>0.8</sub> Sr <sub>0.2</sub> )TiO <sub>3</sub> composite films. Philosophical Magazine, 2017, 97, 269-283.	1.6	7
82	Thermo-induced changes in the optical linearity and nonlinearity of Dy doped (GeSe <sub>2</sub> ) <sub>80</sub> (Sb <sub>2</sub> Se <sub>3</sub> ) <sub>20</sub> thin films. Optical and Quantum Electronics, 2022, 54, 1.	3.3	7
83	An optical study of amorphous (Se <sub>80</sub> Te <sub>20</sub> ) <sub>100-x</sub> Gex thin films using their transmission spectra. Journal Physics D: Applied Physics, 2008, 41, 235301.	2.8	6
84	CdS nanopowder and nanofilm: Simultaneous synthesis and structural analysis. Electronic Materials Letters, 2013, 9, 371-374.	2.2	6
85	Red shift in absorption edge of Cd <sub>1-x</sub> Ni <sub>x</sub> S dilute magnetic semiconductor nanofilms. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	6
86	CdS nanofilms: effect of deposition temperature on morphology and optical band gap. Physica Scripta, 2013, 88, 045603.	2.5	6
87	Optical parameters of nanostructured thin films of electromagnetite Pb <sub>1-x</sub> Sr <sub>x</sub> (Fe <sub>0.012</sub> Ti <sub>0.988</sub> )O <sub>3</sub> . Applied Physics B: Lasers and Optics, 2008, 93, 859-864.	2.2	5
88	Effect of Ge Addition on the Optical Band Gap and Refractive Index of Thermally Evaporated Thin Films. Research Letters in Materials Science, 2008, 2008, 1-4.	0.2	5
89	Effect of substitutional doping on temperature dependent electrical parameters of amorphous Se-Te semiconductors. Electronic Materials Letters, 2013, 9, 629-633.	2.2	5
90	A study of ac conductivity of nano TiO <sub>2</sub> -polyaniline based film. Materials Today: Proceedings, 2020, 26, 341-343.	1.8	5

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91	Transformation in the structural and optical properties with the phase change from hematite (Fe <sub>2</sub> O <sub>3</sub> ) to pure spinel structure in Mn-Zn nanoferrites. <i>Physica B: Condensed Matter</i> , 2020, 584, 412107.	2.7	5
92	DC conductivity and threshold switching in iodine doped Ge-Se-Te glasses. <i>Ceramics International</i> , 2021, 47, 33718-33724.	4.8	5
93	Study of amorphous Sn <sup>4+</sup> Se <sup>4+</sup> Bi <sup>3+</sup> Te semiconducting materials at an average coordination number <math>\langle r \rangle = 2.4</math>. <i>Materials Research Express</i> , 2019, 6, 075209.	1.6	4
94	Synthesis and characterization of Ag-chalcogenide nanoparticles for possible applications in photovoltaics. <i>Materials Science-Poland</i> , 2018, 36, 375-380.	1.0	4
95	Complex Er-doped selenium-based chalcogenides in the far-infrared region: a structural bonding arrangement study. <i>Physica Scripta</i> , 2022, 97, 085707.	2.5	4
96	A Study of the Physical Properties of Te <sub>15</sub> (Se <sub>100-x</sub> Bi <sub>x</sub> ) <sub>85</sub> Glassy Alloys. <i>Defect and Diffusion Forum</i> , 2010, 305-306, 61-69.	0.4	3
97	TiO <sub>2</sub> /PANI nanocomposite loaded in PVA for anticorrosive applications. <i>Materials Science-Poland</i> , 2016, 34, 721-725.	1.0	3
98	Investigation on multiferroic, optical and photoluminescence properties of CoFe <sub>2</sub> O <sub>4</sub> /(Pb <sup>1-x</sup> Sr <sup>x</sup> )TiO <sub>3</sub> nanostructured composite thin films. <i>Solid State Sciences</i> , 2016, 61, 63-69.	3.2	3
99	Cohesive energy calculation of quaternary Ge-Te-Se-Ga chalcogenide glasses using chemical bond approach. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	3
100	Dark, photo and thermally driven conductivity of Ag-mixed Se <sub>70</sub> Te <sub>30</sub> semiconducting thin films for thermoelectric applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 25074-25083.	2.2	3
101	Calorimetric study of Te <sub>15</sub> (Se <sub>100-x</sub> Bi <sub>x</sub> ) <sub>85</sub> glassy alloys using differential thermal analysis. <i>Philosophical Magazine</i> , 2010, 90, 3907-3918.	1.6	2
102	FTIR and DSC Study of Se <sub>92</sub> Te <sub>8-x</sub> Sn <sub>x</sub> (x=0, 3 and 5) Chalcogenide Glasses. <i>Materials Science Forum</i> , 0, 710, 745-750.	0.3	2
103	A Study of Thermal Stability And Crystallization Kinetics of SbSeGe Glassy Alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 225, 012009.	0.6	2
104	Study of some network parameters for chalcogenide glasses at an average coordination number 2.4. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	2
105	Phase Transition in II <sup>VI</sup> Nanofilms of Dilute Magnetic Semiconductors: Cd <sub>1-x</sub> Ni <sub>x</sub> S. <i>Science of Advanced Materials</i> , 2013, 5, 713-717.	0.7	2
106	Polyaniline: tin oxide polymeric nanocomposite films. An electrical and dielectric study. <i>Materials Science-Poland</i> , 2018, 36, 711-716.	1.0	2
107	On the structural and optical aspects of GeTeSeGa thermally evaporated chalcogenides thin films for infrared applications. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	2
108	Nonlinear optical properties of IV-V-VI chalcogenide glasses. , 2013, , .		1

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109	Structural correlation of GeTeSeGa system by XRD and far-infrared spectroscopy. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	1
110	Structural and Optical Study of Chemical Bath Deposited Nano-Structured CdS Thin Films. , 2011, , .		0
111	Electrical and Dielectric Properties of $\text{Te}_{1.5}(\text{Se}_{100-x}\text{Bi}_x)_{85}\text{Sb}_{15}$ Amorphous Glassy Alloys. Defect and Diffusion Forum, 0, 316-317, 69-80.		0
112	SbSeGe semiconducting alloys: Non-linear refractive index and susceptibility. , 2013, , .		0
113	Stability analysis of IV-V-VI chalcogenide glasses using glass transition and crystallization temperature. , 2013, , .		0
114	Morphological and optical study of Ag <sub>2</sub> Se quantum dots. AIP Conference Proceedings, 2018, , .	0.4	0
115	Optical properties of $(\text{Se}_{80}\text{Te}_{20})_{100-x}\text{Zn}_x$ ( $2 \leq x \leq 6$ ) amorphous thin films. Journal of Non-Crystalline Solids, 2020, 531, 119848.	3.1	0
116	Effect of Annealing on Structure and Physicochemical Properties of $(\text{Ge}_{20}\text{Se}_{18}\text{Te}_{62})_{100-x}\text{Sb}_x$ , Where $x = 0, 8$ . Glass Physics and Chemistry, 2021, 47, 245-252.	0.7	0
117	Evaluation of optical properties of thermally deposited (Sn,Se)-(Bi,Te) thin film. AIP Conference Proceedings, 2020, , .	0.4	0