Alexander Kolobov

List of Publications by Year
in descending order

261	9,127	53794	49909
papers	citations	45 h-index	87 g-index

272	272	272	5462
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding the phase-change mechanism of rewritable optical media. Nature Materials, 2004, 3, 703-708.	27.5	1,193
2	Interfacial phase-change memory. Nature Nanotechnology, 2011, 6, 501-505.	31.5	630
3	Photoinduced effects and metastability in amorphous semiconductors and insulators. Advances in Physics, 1995, 44, 475-588.	14.4	593
4	Photodoping of amorphous chalcogenides by metals. Advances in Physics, 1991, 40, 625-684.	14.4	294
5	Toward the Ultimate Limit of Phase Change in Ge₂Sb₂Te₅. Nano Letters, 2010, 10, 414-419.	9.1	226
6	Raman scattering study of the a-GeTe structure and possible mechanism for the amorphous to crystal transition. Journal of Physics Condensed Matter, 2006, 18, 965-979.	1.8	186
7	Distortion-triggered loss of long-range order in solids with bonding energy hierarchy. Nature Chemistry, 2011, 3, 311-316.	13.6	178
8	Structural study of amorphous selenium by in situ EXAFS: Observation of photoinduced bond alternation. Physical Review B, 1997, 55, 726-734.	3.2	173
9	Raman scattering study of GeTe and Ge2Sb2Te5 phase-change materials. Journal of Physics and Chemistry of Solids, 2007, 68, 1074-1078.	4.0	164
10	Ferroelectric Order Control of the Diracâ€Semimetal Phase in GeTeâ€Sb₂Te₃ Superlattices. Advanced Materials Interfaces, 2014, 1, 1300027.	3.7	155
11	Two-Dimensional Transition-Metal Dichalcogenides. Springer Series in Materials Science, 2016, , .	0.6	126
12	Raman scattering from Ge nanostructures grown on Si substrates: Power and limitations. Journal of Applied Physics, 2000, 87, 2926-2930.	2.5	121
13	Direct Observation of Nitrogen Location in Molecular Beam Epitaxy Grown Nitrogen-Doped ZnO. Physical Review Letters, 2006, 96, 045504.	7.8	119
14	An in situ Raman study of polarization-dependent photocrystallization in amorphous selenium films. Applied Physics Letters, 1998, 72, 1167-1169.	3.3	116
15	Local structure of crystallized GeTe films. Applied Physics Letters, 2003, 82, 382-384.	3.3	114
16	Intrinsic complexity of the melt-quenched amorphous Ge<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Sb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow	3.2	109
17	Pressure-Induced Site-Selective Disordering ofGe2Sb2Te5: A New Insight into Phase-Change Optical Recording. Physical Review Letters, 2006, 97, 035701.	7.8	100
18	Photomelting of selenium at low temperature. Applied Physics Letters, 1999, 74, 215-217.	3.3	97

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19	Phase transition in crystalline GeTe: Pitfalls of averaging effects. Physical Review B, 2010, 82, .	3.2	95
20	Thermal and optical bleaching in darkened films of chalcogenide vitreous semiconductors. Physica Status Solidi A, 1980, 57, 81-88.	1.7	81
21	Photoassisted amorphization of the phase-change memory alloy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ge</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msu Physical Review B, 2010, 82, .	3.2	80
22	Ferroelectric catastrophe: beyond nanometre-scale optical resolution. Nanotechnology, 2004, 15, 411-415.	2.6	79
23	Vacancy mediated three-center four-electron bonds in GeTe-Sb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Te<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>phase-change memory alloys. Physical Review B, 2013, 87, .	3.2	76
24	Electrical-field induced giant magnetoresistivity in (non-magnetic) phase change films. Applied Physics Letters, 2011, 99, 152105.	3.3	74
25	Giant multiferroic effects in topological GeTe-Sb₂Te₃superlattices. Science and Technology of Advanced Materials, 2015, 16, 014402.	6.1	73
26	Role of Ge Switch in Phase Transition: Approach using Atomically Controlled GeTe/Sb₂Te₃ Superlattice. Japanese Journal of Applied Physics, 2008, 47, 5763.	1.5	68
27	A model of photostructural changes in chalcogenide vitreous semiconductors: 1. Theoretical considerations. Journal of Non-Crystalline Solids, 1981, 45, 335-341.	3.1	67
28	Ferroelectric switching in epitaxial GeTe films. APL Materials, 2014, 2, .	5.1	67
29	Chalcogenides. Springer Series in Materials Science, 2012, , .	0.6	65
30	The order-disorder transition in GeTe: Views from different length-scales. Applied Physics Letters, 2011, 99, .	3.3	63
31	Femtosecond structural transformation of phase-change materials far from equilibrium monitored by coherent phonons. Nature Communications, 2015, 6, 8367.	12.8	62
32	Polarized Raman spectra of selenium species confined in nanochannels of AlPO4-5 single crystals. Chemical Physics Letters, 1997, 280, 17-23.	2.6	61
33	Selfâ€organized van der Waals epitaxy of layered chalcogenide structures. Physica Status Solidi (B): Basic Research, 2015, 252, 2151-2158.	1.5	61
34	Crystallization-induced short-range order changes in amorphous GeTe. Journal of Physics Condensed Matter, 2004, 16, S5103-S5108.	1.8	58
35	Atomic Reconfiguration of van der Waals Gaps as the Key to Switching in GeTe/Sb₂Te₃ Superlattices. ACS Omega, 2017, 2, 6223-6232.	3.5	58
36	Mirror-symmetric Magneto-optical Kerr Rotation using Visible Light in [(GeTe)2(Sb2Te3)1]n Topological Superlattices. Scientific Reports, 2014, 4, 5727.	3.3	57

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37	Enhanced crystallization of GeTe from an Sb2Te3 template. Applied Physics Letters, 2012, 100, .	3.3	56
38	Why Phase-Change Media Are Fast and Stable: A New Approach to an Old Problem. Japanese Journal of Applied Physics, 2005, 44, 3345-3349.	1.5	55
39	Initial Structure Memory of Pressure-Induced Changes in the Phase-Change Memory Alloy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ge</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Sb</mml:mi><mml:mi>Physical Review Letters, 2009, 103, 115502.	7.8	51
40	Instability and Spontaneous Reconstruction of Few-Monolayer Thick GaN Graphitic Structures. Nano Letters, 2016, 16, 4849-4856.	9.1	51
41	What is the Origin of Activation Energy in Phase-Change Film?. Japanese Journal of Applied Physics, 2009, 48, 03A053.	1.5	48
42	Electronic excitation-induced semiconductor-to-metal transition in monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoTe</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2016, 94, .	3.2	48
43	Dynamics of Single Selenium Chains Confined in One-Dimensional Nanochannels ofAlPO4â˜5: Temperature Dependencies of the First- and Second-Order Raman Spectra. Physical Review Letters, 1999, 82, 1955-1958.	7.8	47
44	Photoinduced phenomena in amorphous chalcogenides. , 2001, , 47-90.		47
45	Local structure of Ge nanoislands on Si(111) surfaces with a SiO2 coverage. Applied Physics Letters, 2001, 78, 2563-2565.	3.3	47
46	Formation of Ge nanocrystals embedded in aSiO2matrix:â€ƒTransmission electron microscopy, x-ray absorption, and optical studies. Physical Review B, 2003, 67, .	3.2	47
47	Understanding Phase-Change Memory Alloys from a Chemical Perspective. Scientific Reports, 2015, 5, 13698.	3.3	47
48	A two-step process for growth of highly oriented Sb2Te3 using sputtering. AIP Advances, 2016, 6, .	1.3	47
49	Direct Separation of Short Range Order in Intermixed Nanocrystalline and Amorphous Phases. Physical Review Letters, 2002, 89, 285503.	7.8	41
50	Thermal Origin of Readout Mechanism of Light-Scattering Super-Resolution Near-Field Structure Disk. Japanese Journal of Applied Physics, 2004, 43, L8-L10.	1.5	41
51	Chalcogenide glasses as prospective materials for optical memories and optical data storage. Journal of Materials Science: Materials in Electronics, 2003, 14, 677-680.	2.2	40
52	A model of photostructural changes in chalcogenide vitreous semiconductors: 2. Experimental results. Journal of Non-Crystalline Solids, 1981, 45, 343-353.	3.1	38
53	Experimental evidence for negative correlation energy and valence alternation in amorphous selenium. Physical Review B, 1997, 56, R485-R488.	3.2	38
54	Photoinduced anisotropic conversion of bonding and lone-pair electrons inAs2S3sglass. Physical Review B, 1997, 55, 23-25.	3.2	38

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55	Negative correlation energy and valence alternation in amorphous selenium: Anin situoptically induced ESR study. Physical Review B, 1998, 58, 12004-12010.	3.2	38
56	Remote epitaxy using graphene enables growth of stress-free GaN. Nanotechnology, 2019, 30, 505603.	2.6	38
57	Terahertz spectroscopic characterization of Ge₂Sb₂Te₅ phase change materials for photonics applications. Journal of Materials Chemistry C, 2019, 7, 8209-8215.	5.5	38
58	Athermal light-induced vitrification of As50Se50 films. Journal of Non-Crystalline Solids, 1991, 128, 216-220.	3.1	37
59	Origin of resistivity contrast in interfacial phase-change memory: The crucial role of Ge/Sb intermixing. Applied Physics Letters, 2019, 114, .	3.3	37
60	Pressure-induced amorphization of quasibinary GeTeâ€“Sb2Te3: The role of vacancies. Applied Physics Letters, 2007, 91, 021911.	3.3	35
61	Local instability of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-type bonding makes amorphous GeTe a lone-pair semiconductor. Physical Review B, 2013, 87, .	3.2	35
62	Ge L3-edge x-ray absorption near-edge structure study of structural changes accompanying conductivity drift in the amorphous phase of Ge2Sb2Te5. Journal of Applied Physics, 2014, 115, .	2.5	34
63	Non-melting super-resolution near-field apertures in Sbâ€“Te alloys. Applied Physics Letters, 2010, 97, 161906.	3.3	33
64	Reversible photo-amorphization of crystalline films of As50Se50. Journal of Non-Crystalline Solids, 1995, 189, 297-300.	3.1	32
65	Temperature independence of pressure-induced amorphization of the phase-change memory alloy Ge2Sb2Te5. Applied Physics Letters, 2008, 93, .	3.3	32
66	Thermal decomposition of a thin AgOx layer generating optical near-field. Applied Physics Letters, 2004, 84, 1641-1643.	3.3	31
67	Existence of tetrahedral site symmetry about Ge atoms in a single-crystal film of Ge2Sb2Te5 found by x-ray fluorescence holography. Applied Physics Letters, 2007, 90, 131913.	3.3	31
68	Raman spectra of Ge nanocrystals embedded into SiO2. Journal of Applied Physics, 2000, 88, 3285-3289.	2.5	30
69	Mechanism of photoluminescence of silicon oxide films enriched by Si or Ge. Microelectronic Engineering, 2003, 66, 83-90.	2.4	30
70	Laser-induced suppression of photocrystallization rate in amorphous selenium films. Journal of Applied Physics, 1998, 83, 4951-4956.	2.5	29
71	Epitaxial phaseâ€change materials. Physica Status Solidi - Rapid Research Letters, 2012, 6, 415-417.	2.4	29
72	Abâ€initio calculations and structural studies of (SiTe) 2 (Sb 2 Te 3) n (n : 1, 2, 4 and 6) phaseâ€change superlattice films. Physica Status Solidi - Rapid Research Letters, 2014, 8, 302-306.	2.4	29

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73	Sub-nanometre resolution of atomic motion during electronic excitation in phase-change materials. Scientific Reports, 2016, 6, 20633.	3.3	29
74	On the mechanism of photostructural changes in As-based vitreous chalcogenides microscopic, dynamic and electronic aspects. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 21-30.	0.6	28
75	Photoinduced anisotropy in vitreousAs2S3:mA reflectance-difference study. Physical Review B, 1997, 55, 8788-8792.	3.2	28
76	Why DVDs work the way they do: The nanometer-scale mechanism of phase change in Geâ€“Sbâ€“Te alloys. Journal of Non-Crystalline Solids, 2006, 352, 1612-1615.	3.1	28
77	Around the phase-change cycle. Nature Materials, 2008, 7, 351-353.	27.5	28
78	Crystalline GeTe-based phase-change alloys: Disorder in order. Physical Review B, 2012, 86, .	3.2	28
79	Selective detection of tetrahedral units in amorphous GeTe-based phase change alloys using Ge L3-edge x-ray absorption near-edge structure spectroscopy. Applied Physics Letters, 2013, 102, 111904.	3.3	28
80	A nanometer scale mechanism for the reversible photostructural change in amorphous chalcogenides. Journal of Non-Crystalline Solids, 1998, 232-234, 80-85.	3.1	27
81	Liquid Ge2Sb2Te5 studied by extended x-ray absorption. Applied Physics Letters, 2009, 95, .	3.3	27
82	Excitation-Assisted Disordering of GeTe and Related Solids with Resonant Bonding. Journal of Physical Chemistry C, 2014, 118, 10248-10253.	3.1	27
83	Structure of selenium incorporated into nanochannels of mordenite: dependence on ion exchange and method of incorporation. Chemical Physics Letters, 1997, 280, 10-16.	2.6	26
84	Raman scattering and x-ray absorption studies of Geâ€“Si nanocrystallization. Applied Physics Letters, 2002, 80, 488-490.	3.3	26
85	Cr-Triggered Local Structural Change in Cr₂Ge₂Te₆ Phase Change Material. ACS Applied Materials & Interfaces, 2019, 11, 43320-43329.	8.0	26
86	A Raman scattering study of self-assembled pure isotope Ge/Si(100) quantum dots. Applied Physics Letters, 2002, 81, 3855-3857.	3.3	25
87	Local structure of nitrogen in N-doped amorphous and crystalline GeTe. Applied Physics Letters, 2012, 100, .	3.3	25
88	A Magnetoresistance Induced by a Nonzero Berry Phase in GeTe/Sb 2 Te 3 Chalcogenide Superlattices. Advanced Functional Materials, 2017, 27, 1702243.	14.9	24
89	Electronic Structure of Transition-Metal Based Cu₂GeTe₃ Phase Change Material: Revealing the Key Role of Cu d Electrons. Chemistry of Materials, 2017, 29, 7440-7449.	6.7	24
90	Role of lone-pair electrons in reversible photostructural changes in amorphous chalcogenides. Journal of Non-Crystalline Solids, 1998, 227-230, 710-714.	3.1	23

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91	Local structure of uncapped and Si-capped Ge/Si(100) self-assembled quantum dots. Applied Physics Letters, 2001, 78, 451-453.	3.3	23
92	Phase-change optical recording: Past, present, future. Thin Solid Films, 2007, 515, 7534-7537.	1.8	23
93	High-quality sputter-grown layered chalcogenide films for phase change memory applications and beyond. Journal Physics D: Applied Physics, 2020, 53, 284002.	2.8	23
94	Electron spectroscopic study of the growth, composition and stability of GeSx films prepared in ultra-high vacuum. Thin Solid Films, 1994, 237, 134-140.	1.8	22
95	Reversible photo-amorphization of a crystallized As₅₀Se₅₀alloy. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1995, 71, 1-10.	0.6	22
96	Amorphous-to-Crystal Transition in Quasi-Two-Dimensional MoS₂: Implications for 2D Electronic Devices. ACS Applied Nano Materials, 2021, 4, 8834-8844.	5.0	22
97	On the mechanism of photodoping in vitreous chalcogenides. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1990, 61, 859-865.	0.6	21
98	Comment on â€œRaman scattering from a self-organized Ge dot superlatticeâ€•[Appl. Phys. Lett. 74, 1863 (1999)]. Applied Physics Letters, 1999, 75, 3572-3573.	3.3	21
99	In SituX-Ray Absorption Fine Structure Detection of Reversible Photoinduced Anisotropy in Amorphous Selenium. Physical Review Letters, 2001, 87, 145502.	7.8	21
100	Local structure of the SnTe topological crystalline insulator: Rhombohedral distortions emerging from the rocksalt phase. Physical Review B, 2014, 90, .	3.2	21
101	Ultrafast dynamics of the low frequency shear phonon in 1Tâ€²-MoTe2. Applied Physics Letters, 2020, 116, .	3.3	21
102	Athermal photo-amorphization of As50Se50 films. Journal of Non-Crystalline Solids, 1992, 150, 116-119.	3.1	20
103	A possible mechanism of ultrafast amorphization in phase-change memory alloys: an ion slingshot from the crystalline to amorphous position. Journal of Physics Condensed Matter, 2007, 19, 455209.	1.8	20
104	Effect of doping on global and local order in crystalline GeTe. Applied Physics Letters, 2011, 98, .	3.3	20
105	Photo- and thermal doping of chalcogenide vitreous semiconductors by zinc. Solid State Communications, 1985, 54, 379-382.	1.9	19
106	Polarized photodoping of As₂S₃films by silver. Philosophical Magazine Letters, 1992, 65, 67-69.	1.2	19
107	Thermal decomposition of sputtered thin PtOx layers used in super-resolution optical disks. Applied Physics Letters, 2005, 86, 121909.	3.3	19
108	Picosecond strain dynamics in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ge</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>by time-resolved x-ray diffraction. Physical Review B, 2014, 90, .	3.2	19

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109	Compositional tuning in sputter-grown highly-oriented Biâ€“Te films and their optical and electronic structures. Nanoscale, 2017, 9, 15115-15121.	5.6	19
110	Local structure of Ge quantum dots self-assembled on Si(100) probed by x-ray absorption fine-structure spectroscopy. Physical Review B, 2002, 66, .	3.2	18
111	Local atomic order of crystalline Ge<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>8</mml:mn></mml:msub></mml:math>Sb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Te<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>	3.2	18
112	Recrystallization of an amorphized epitaxial phase-change alloy: A phoenix arising from the ashes. Applied Physics Letters, 2012, 101, 061903.	3.3	18
113	Strain engineering of atomic and electronic structures of few-monolayer-thick GaN. Physical Review Materials, 2017, 1, .	2.4	18
114	Novel photoinduced surface oxidation of an amorphous semiconductor: An XPS study of vitreous arsenic sulphide. Surface Science, 1989, 222, L819-L824.	1.9	17
115	Photostructural changes in amorphous As50Se50 films: An EXAFS study. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1990, 61, 853-858.	0.6	17
116	Manipulating the Bulk Band Structure of Artificially Constructed van der Waals Chalcogenide Heterostructures. ACS Applied Materials & Interfaces, 2017, 9, 23918-23925.	8.0	17
117	Zener Tunneling Breakdown in Phase-Change Materials Revealed by Intense Terahertz Pulses. Physical Review Letters, 2018, 121, 165702.	7.8	17
118	Dimerization of single selenium chains confined in nanochannels of cancrinite: An x-ray absorption study. Physical Review B, 1999, 59, 9035-9043.	3.2	16
119	Dimensional transformation of chemical bonding during crystallization in a layered chalcogenide material. Scientific Reports, 2021, 11, 4782.	3.3	16
120	An EXAFS study of reversible photostructural changes in As2Se3 glass. Physics of the Solid State, 1997, 39, 64-67.	0.6	15
121	Pump and probe X-ray absorption fine structure using high-brilliance photon sources. Journal of Synchrotron Radiation, 1998, 5, 1001-1003.	2.4	15
122	Reversible and athermal photo-vitrification of As 50 Se 50 thin films deposited onto silicon wafer and glass substrates. Applied Physics A: Materials Science and Processing, 1999, 68, 653-661.	2.3	15
123	Short-range order structures of self-assembled Ge quantum dots probed by multiple-scattering extended x-ray absorption fine structure. Physical Review B, 2005, 71, .	3.2	15
124	Polarization dependent optical control of atomic arrangement in multilayer Ge-Sb-Te phase change materials. Applied Physics Letters, 2012, 101, 232101.	3.3	15
125	A reconsideration of the thermodynamics of phaseâ€change switching. Physica Status Solidi (B): Basic Research, 2012, 249, 1932-1938.	1.5	15
126	Athermal amorphization of crystallized chalcogenide glasses and phase-change alloys. Physica Status Solidi (B): Basic Research, 2014, 251, 1297-1308.	1.5	15

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127	pâ€Type conductivity of GeTe: The role of loneâ€pair electrons. Physica Status Solidi (B): Basic Research, 2012, 249, 1902-1906.	1.5	14
128	Coherent phonon study of (GeTe)l(Sb2Te3)m interfacial phase change memory materials. Applied Physics Letters, 2014, 105, 151902.	3.3	14
129	Local structure of the crystalline and amorphous states of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ga</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> alloy without resonant bonding: A combined x-ray absorption andab initiostudy. Physical Review B, 2017, 95, .	3.2	14
130	Highâ€Speed Bipolar Switching of Sputtered Geâ€“Te/Sbâ€“Te Superlattice iPCM with Enhanced Cyclability. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900105.	2.4	14
131	Raman scattering investigation of aGe/SiO2/Sinanocrystal system under hydrostatic pressure. Physical Review B, 2004, 69, .	3.2	13
132	Sub-Nanosecond Time-Resolved Structural Measurements of the Phase-Change Alloy Ge2Sb2Te5. Japanese Journal of Applied Physics, 2007, 46, 3711-3714.	1.5	13
133	Amorphous InSb: Longer bonds yet higher density. Journal of Applied Physics, 2010, 108, 023506.	2.5	13
134	Pressure-induced structural transitions in phase-change materials based on Ge-free Sb-Te alloys. Physical Review B, 2011, 83, .	3.2	13
135	Local structure of amorphous Geï£¿Sbï£¿Te alloys: Ge umbrella flip vs. DFT simulations. Physica Status Solidi (B): Basic Research, 2009, 246, 1826-1830.	1.5	12
136	Recent developments concerning the sputter growth of chalcogenide-based layered phase-change materials. Materials Science in Semiconductor Processing, 2021, 135, 106079.	4.0	12
137	Raman and X-ray absorption study of selenium incorporated into the channels of mordenite: Dependence on the ion exchange and the method of incorporation. Scripta Materialia, 1998, 10, 427-436.	0.5	11
138	Photo-induced ring-to-chain conversion in as-evaporated films of amorphous selenium. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 78, 87-94.	0.6	11
139	Local structure of Co nanocrystals embedded in hydrogenated amorphous carbon: An x-ray absorption study. Journal of Applied Physics, 2002, 92, 6195-6199.	2.5	11
140	Effect of the interface on the local structure of Geâ€“Si nanostructures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1116-1119.	2.1	11
141	Study of band inversion in the Pb_xSn_{1â^'x}Te class of topological crystalline insulators using x-ray absorption spectroscopy. Journal of Physics Condensed Matter, 2014, 26, 475502.	1.8	11
142	Coherent Dirac plasmons in topological insulators. Physical Review B, 2018, 97, .	3.2	11
143	Understanding the fast phase-change mechanism of tetrahedrally bonded <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> : Comprehensive analyses of electronic structure and transport phenomena. Physical Review B, 2018, 97, .	3.2	11
144	The importance of contacts in Cu2GeTe3 phase change memory devices. Journal of Applied Physics, 2020, 128, .	2.5	11

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145	The Urbach rule in the configuration-coordinate model of amorphous semiconductors. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1979, 40, 475-481.	0.6	10
146	Photo-induced selectivity of metal deposition on the surface of chalcogenide vitreous semiconductors. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1989, 60, 689-694.	0.6	10
147	Structure of photodoped and thermally Zn-doped glassy arsenic sulfide films. Physical Review B, 1990, 41, 9913-9920.	3.2	10
148	Photostructural transformations induced by IR radiation in Asî—¸Seî—¸Te glassy films. Materials Letters, 1997, 30, 79-82.	2.6	10
149	A cascading nonlinear magneto-optical effect in topological insulators. Scientific Reports, 2018, 8, 3908.	3.3	10
150	Insights into the physics and chemistry of chalcogenides obtained from x-ray absorption spectroscopy. Semiconductor Science and Technology, 2017, 32, 123003.	2.0	10
151	Nanoscale mechanism of photoinduced metastability and reversible photodarkening in chalcogenide vitreous semiconductors. Semiconductors, 1998, 32, 801-806.	0.5	9
152	In Situ EXAFS Study of the Photoexcited State and Defects in Chalcogenide Glasses. MRS Bulletin, 1999, 24, 32-35.	3.5	9
153	Local structure of Ge nanocrystals embedded in SiO2studied by X-ray absorption fine structure. Journal of Synchrotron Radiation, 2001, 8, 511-513.	2.4	9
154	Raman scattering of germanium nanocrystals embedded in glass matrix under hydrostatic pressure. Journal of Applied Physics, 2003, 93, 9392-9394.	2.5	9
155	Local structure of epitaxial GeTe and Ge₂Sb₂Te₅ films grown on InAs and Si substrates with (100) and (111) orientations: An x-ray absorption near-edge structure study. Journal of Applied Physics, 2015, 117, 125308.	2.5	9
156	Anisotropic lattice response induced by a linearly-polarized femtosecond optical pulse excitation in interfacial phase change memory material. Scientific Reports, 2016, 6, 19758.	3.3	9
157	Crystal Growth in Amorphous Selenium Thin Filmsâ”€Reviewed and Revisited: Direct Comparison of Microscopic and Calorimetric Measurements. Crystal Growth and Design, 2021, 21, 7087-7097.	3.0	9
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