

Alexander G Lyapin

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

148
papers

3,138
citations

28
h-index

50
g-index

150
ext. papers

3,319
ext. citations

2.4
avg, IF

4.82
L-index

#	Paper	IF	Citations
148	Pressure- and temperature- driven phase transitions in pyridine. <i>Journal of Physics: Conference Series</i> , 2020 , 1609, 012003	0.3	
147	Elastic properties of liquid and glassy propane-based alcohols under high pressure: the increasing role of hydrogen bonds in a homologous family. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 2665-2672	3.6	6
146	Order versus disorder: In situ high-pressure structural study of highly polymerized three-dimensional C60 fullerite. <i>Journal of Applied Physics</i> , 2019 , 126, 065102	2.5	3
145	Ultrasonic study of 1-propanol glasses with various thermobaric histories during the glass-liquid transition. <i>Journal of Physics: Conference Series</i> , 2019 , 1147, 012012	0.3	
144	Comment on "Behavior of Supercritical Fluids across the 'Frenkel Line'". <i>Journal of Physical Chemistry B</i> , 2018 , 122, 6124-6128	3.4	13
143	Graphitization and preparation of diamond in an amorphous carbon material at high pressures and temperatures. <i>Inorganic Materials</i> , 2017 , 53, 154-159	0.9	2
142	Elastic properties of the hydrogen-bonded liquid and glassy glycerol under high pressure: comparison with propylene carbonate. <i>RSC Advances</i> , 2017 , 7, 33278-33284	3.7	9
141	Structural and Dielectric Relaxations in Vitreous and Liquid State of Monohydroxy Alcohol at High Pressure. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 8203-8210	3.4	7
140	Influence of hydrogen bonding on the elastic properties of molecular glassforming liquids under high pressure. <i>Journal of Physics: Conference Series</i> , 2017 , 950, 042053	0.3	1
139	Behavior of detonation nanodiamond at high pressures and temperatures in the presence of a hydrogen-containing fluid. <i>Inorganic Materials</i> , 2016 , 52, 351-356	0.9	7
138	Influence of isotopic disorder on solid state amorphization and polyamorphism in solid H2O/D2O solutions. <i>Physical Review B</i> , 2015 , 92,	3.3	5
137	High pressure behavior of P2O5 crystalline modifications: compressibility, elastic properties and phase transitions. <i>Materials Research Express</i> , 2015 , 2, 025201	1.7	3
136	P-T phase diagram and structural transformations of molten P2O5 under pressure. <i>Physical Review B</i> , 2014 , 89,	3.3	8
135	Magnetoresistance of the high-pressure ferromagnetic phases (GaSb)2M (M=Cr,Mn). <i>Journal of Physics Condensed Matter</i> , 2014 , 26, 326001	1.8	3
134	Nanostructured Superhard Carbon Phases Synthesized from Fullerites under Pressure 2014 , 539-563		1
133	The Frenkel line and supercritical technologies. <i>Russian Journal of Physical Chemistry B</i> , 2014 , 8, 1087-1094	1.4	9
132	Ultrasonic study of solid-phase amorphization and polyamorphism in an H2O-D2O (1: 1) solid solution. <i>JETP Letters</i> , 2013 , 96, 789-793	1.2	3

131	"Liquid-gas" transition in the supercritical region: fundamental changes in the particle dynamics. <i>Physical Review Letters</i> , 2013 , 111, 145901	7.4	127
130	Energy-dispersive X-ray diffraction study of liquid gallium under high pressure at elevated temperatures. <i>High Pressure Research</i> , 2013 , 33, 191-195	1.6	5
129	The high-pressure phase diagram of synthetic epsomite ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ and $\text{MgSO}_4 \cdot 7\text{D}_2\text{O}$) from ultrasonic and neutron powder diffraction measurements. <i>Physics and Chemistry of Minerals</i> , 2013 , 40, 271-285	1.6	15
128	Universal crossover of liquid dynamics in supercritical region. <i>JETP Letters</i> , 2012 , 95, 164-169	1.2	23
127	Two liquid states of matter: a dynamic line on a phase diagram. <i>Physical Review E</i> , 2012 , 85, 031203	2.4	175
126	Dielectric spectroscopy and ultrasonic study of propylene carbonate under ultra-high pressures. <i>Journal of Chemical Physics</i> , 2012 , 137, 084502	3.9	24
125	Where is the supercritical fluid on the phase diagram?. <i>Physics-Uspekhi</i> , 2012 , 55, 1061-1079	2.8	83
124	Hard and superhard carbon phases synthesized from fullerenes under pressure. <i>Journal of Superhard Materials</i> , 2012 , 34, 400-423	0.9	31
123	Energy dispersive x-ray diffraction and reverse Monte Carlo structural study of liquid gallium under pressure. <i>Physical Review B</i> , 2012 , 86,	3.3	29
122	Electrotransport and magnetic properties of Cr-GaSb phases synthesized under high pressure. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 446001	1.8	8
121	Atomistic modeling of multiple amorphous-amorphous transitions in SiO_2 and GeO_2 glasses at megabar pressures. <i>Physical Review B</i> , 2011 , 83,	3.3	25
120	AsS layered-structure compound: new kind of covalent crystals. <i>CrystEngComm</i> , 2011 , 13, 2599	3.3	10
119	Pressure-induced structural transformations and the anomalous behavior of the viscosity in network chalcogenide and oxide melts. <i>JETP Letters</i> , 2011 , 94, 161-170	1.2	12
118	Widom line for the liquid-gas transition in Lennard-Jones system. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 14112-5	3.4	103
117	Densified low-hygroscopic form of P_2O_5 glass. <i>Journal of Materials Chemistry</i> , 2011 , 21, 10442		16
116	Nonlocal dielectric relaxation in glycerol. <i>Physical Review B</i> , 2011 , 84,	3.3	10
115	Pressure-induced change in the relaxation dynamics of glycerol. <i>JETP Letters</i> , 2010 , 92, 479-483	1.2	15
114	Glassy dynamics under superhigh pressure. <i>Physical Review E</i> , 2010 , 81, 041503	2.4	51

113	Structural transformations and anomalous viscosity in the B ₂ O ₃ melt under high pressure. <i>Physical Review Letters</i> , 2010 , 105, 115701	7.4	45
112	Structural transformation yielding an unusual metallic state in liquid As ₂ S ₃ under high pressure. <i>Physical Review B</i> , 2010 , 82,	3.3	14
111	Elastic properties of fullerites C ₆₀ and C ₇₀ under pressure. <i>Journal of Physics: Conference Series</i> , 2010 , 215, 012054	0.3	5
110	New Data on Compressibility of Molecular Fullerites C ₆₀ and C ₇₀ . <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2010 , 18, 406-411	1.8	1
109	Ultrasonic study of epsomite (MgSO ₄ ·7H ₂ O) under pressure. <i>High Pressure Research</i> , 2010 , 30, 51-54	1.6	3
108	Compressibility and polymorphism of As ₄ S ₄ realgar under high pressure. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 385401	1.8	10
107	Electro- and magnetotransport properties of disordered carbon phases synthesized from C ₆₀ fullerite at moderate pressures. <i>JETP Letters</i> , 2008 , 88, 54-58	1.2	
106	High-temperature Transitions of C ₆₀ at Moderate Pressures. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2008 , 16, 475-485	1.8	4
105	Elasticity of Molecular Fullerite C ₆₀ under Pressure. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2008 , 16, 499-506	1.8	3
104	Hopping Conductivity Spectroscopy of Carbon Nanocluster Materials. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2008 , 16, 445-453	1.8	1
103	Nature of the structural transformations in B ₂ O ₃ glass under high pressure. <i>Physical Review Letters</i> , 2008 , 101, 035702	7.4	65
102	Ultrasonic study of monomeric fullerite C ₆₀ under pressure. <i>Journal of Physics: Conference Series</i> , 2008 , 121, 022008	0.3	2
101	Electrotransport and magnetic properties of metastable phases in the system GaSb-Mn synthesized under high pressure. <i>Journal of Physics: Conference Series</i> , 2008 , 121, 032011	0.3	3
100	Thermodynamic properties of graphite-like nanostructures prepared by thermobaric treatment of fullerite C ₆₀ . <i>Russian Chemical Bulletin</i> , 2008 , 57, 1975-1980	1.7	4
99	As ₂ S ₃ melt under pressure: one substance, three liquids. <i>Physical Review Letters</i> , 2008 , 100, 145701	7.4	40
98	Elastic properties of crystalline and liquid gallium at high pressures. <i>Journal of Experimental and Theoretical Physics</i> , 2008 , 107, 818-827	1	28
97	Scaling of magnetoresistance of carbon nanomaterials in Mott-type hopping conductivity region. <i>Physics of the Solid State</i> , 2008 , 50, 1386-1391	0.8	4
96	Hopping conduction and magnetoresistance of C ₂ N ₂ -based nanomaterials synthesized under high pressure. <i>Physics of the Solid State</i> , 2007 , 49, 1403-1409	0.8	4

95	Molecular-network-ionic structure transitions in liquid AlCl ₃ and ZnCl ₂ halogenides under pressure. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 246104	1.8	16
94	Pressure-driven "molecular metal" to "atomic metal" transition in crystalline Ga. <i>Physical Review Letters</i> , 2007 , 98, 165503	7.4	27
93	AsS: Bulk inorganic molecular-based chalcogenide glass. <i>Applied Physics Letters</i> , 2007 , 91, 031912	3.4	23
92	Bulk nanostructured carbon phases prepared from C ₆₀ : approaching the ideal hardness. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 236209	1.8	17
91	Dilatometry and X-Ray Study of Orientational Phase Transitions in C ₆₀ . <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2006 , 14, 415-419	1.8	
90	Anisotropic Carbon Phases Prepared from Fullerite C ₇₀ under High Pressure. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2006 , 14, 409-414	1.8	5
89	Ferromagnetism in the high-pressure phases of (GaSb) _{1-x} Mnx. <i>JETP Letters</i> , 2006 , 84, 195-198	1.2	6
88	Lattice parameters and thermal expansion of superconducting boron-doped diamonds. <i>Physical Review B</i> , 2006 , 74,	3.3	45
87	A calorimetric study of the dimerized phase of C ₆₀ fullerene. <i>Physics of the Solid State</i> , 2006 , 48, 1016-1023	1.2	2
86	High-pressure phases in the GaSb-Mn system. <i>Physics of the Solid State</i> , 2006 , 48, 2177-2182	0.8	9
85	Structural studies of phase transitions in crystalline and liquid halides (ZnCl ₂ , AlCl ₃) under pressure. <i>JETP Letters</i> , 2005 , 82, 713-718	1.2	10
84	High-Pressure Structural Transformations of Carbyne. <i>Inorganic Materials</i> , 2005 , 41, 950-954	0.9	2
83	Mechanism of formation of the superhard disordered graphite-like phase from fullerite C ₆₀ under pressure. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, 249-256	1.8	32
82	Kinetic Properties of Orientational Phase Transition in Polymerized States of Fullerites C ₆₀ . <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2005 , 12, 259-262	1.8	1
81	Anisotropic Nanoclustered Carbon Phases Prepared from Fullerite C ₆₀ Under Non-hydrostatic High Pressure. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2005 , 12, 235-241	1.8	
80	Metastable high-pressure phases of low-Z compounds: creation of a new chemistry or a prompt for old principles?. <i>Nature Materials</i> , 2004 , 3, 497-500	27	25
79	Ultrasonic study of the phase diagram of methanol. <i>JETP Letters</i> , 2004 , 80, 597-601	1.2	21
78	Hopping conductivity in carbynes. Magnetoresistance and Hall effect. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004 , 1, 29-32		1

77	Thermodynamics of 2D polymerized tetragonal phase of fullerene C60 in the range from T-0 to 650K at standard pressure. <i>Thermochimica Acta</i> , 2004 , 411, 101-108	2.9	7
76	DIRECTIONAL ANISOTROPY IN CARBON PHASES PREPARED FROM FULLERITE C60 UNDER HIGH PRESSURES. <i>High Pressure Research</i> , 2003 , 23, 275-279	1.6	7
75	Phase equilibria in partially open systems under pressure: the decomposition of stoichiometric GeO ₂ oxide. <i>Physics-Uspokhi</i> , 2003 , 46, 1283-1289	2.8	8
74	Thermodynamic and dilatometric properties of the dimerized phase of a C60 fullerene. <i>Physics of the Solid State</i> , 2003 , 45, 802-808	0.8	4
73	Structural transformations in liquid, crystalline, and glassy B ₂ O ₃ under high pressure. <i>JETP Letters</i> , 2003 , 78, 393-397	1.2	26
72	Elastic properties of D ₂ O ices in solid-state amorphization and transformations between amorphous phases. <i>JETP Letters</i> , 2003 , 78, 488-492	1.2	18
71	Electron transport in carbynes modified under high pressure. <i>JETP Letters</i> , 2003 , 78, 511-519	1.2	11
70	Two scenarios for phase-transformation in disordered media. <i>JETP Letters</i> , 2003 , 78, 542-547	1.2	16
69	High-pressure phase transformations in liquids and amorphous solids. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, 6059-6084	1.8	123
68	Elastic properties of metastable crystalline and amorphous gasb-ge semiconductors synthesized under high pressure. <i>High Pressure Research</i> , 2003 , 23, 187-190	1.6	1
67	Structural and elastic anisotropy of carbon phases prepared from fullerite C60. <i>Applied Physics Letters</i> , 2003 , 83, 3903-3905	3.4	13
66	Pressure-induced crossover between diffusive and displacive mechanisms of phase transitions in single-crystalline alpha-GeO ₂ . <i>Physical Review Letters</i> , 2003 , 90, 145503	7.4	18
65	Crossover between the thermodynamic and nonequilibrium scenarios of structural transformations of H ₂ O Ih ice during compression. <i>Journal of Experimental and Theoretical Physics</i> , 2002 , 94, 283-292	1	14
64	Correlations between the physical properties of the carbon phases obtained at a high pressure from C60 fullerite. <i>Physics of the Solid State</i> , 2002 , 44, 405-409	0.8	7
63	The influence of dimerization on the orientational phase transition in the C60 fullerite. <i>Physics of the Solid State</i> , 2002 , 44, 447-449	0.8	3
62	A new nanocluster carbyne-based material synthesized under high pressure. <i>Physics of the Solid State</i> , 2002 , 44, 607-611	0.8	3
61	In situ study of the mechanism of formation of pressure-densified SiO ₂ glasses. <i>JETP Letters</i> , 2002 , 75, 342-347	1.2	59
60	Interplay between the structure and properties of new metastable carbon phases obtained under high pressures from fullerite C60 and carbyne. <i>JETP Letters</i> , 2002 , 76, 681-692	1.2	27

59	Harder than diamond: Dreams and reality. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002 , 82, 231-253		337
58	Elastic properties of carbon phases obtained from C60 under pressure: the first example of anisotropic disordered carbon solid. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 10911-10915	1.8	8
57	The inversion of relative shear rigidity in different material classes at megabar pressures. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 10861-10867	1.8	7
56	Mechanical Properties of Polymerized, Amorphous, and Nanocrystalline Carbon Phases Prepared from Fullerite C60 under Pressure 2002 , 199-216		
55	Mechanical Properties of Polymerized, Amorphous, and Nanocrystalline Carbon Phases Prepared from Fullerite C60 under Pressure 2002 , 199-216		1
54	Transitions in Liquids: Examples and Open Questions 2002 , 238-254		1
53	New Types of Phase Transitions: Phenomenology, Concepts and Terminology 2002 , 15-27		6
52	Kinetics and Non-Ergodic Nature of Amorphous-Amorphous Transformations under Pressure 2002 , 448-468		1
51	Elastic properties of substances in the megabar pressure range: Inversion of shear rigidity. <i>JETP Letters</i> , 2001 , 73, 197-201	1.2	4
50	Anisotropy of the elastic properties and the microhardness of disordered superhard carbon obtained from C60 fullerite under high pressures. <i>JETP Letters</i> , 2001 , 73, 552-556	1.2	7
49	Elastic properties of superhard amorphous carbon pressure-synthesized from C60 by surface Brillouin scattering. <i>Physical Review B</i> , 2001 , 64,	3.3	28
48	Ultrasonic study of the nonequilibrium pressure-temperature diagram of H2O ice. <i>Physical Review B</i> , 2001 , 64,	3.3	89
47	Acoustic Microscopy and Surface Brillouin Scattering of Amorphous Carbon Pressure-Synthesized From C60. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 675, 1		1
46	Thermodynamic properties of 1D and 2D polymerized fullerite C60 between 0 and 340 K at standard pressure. <i>Thermochimica Acta</i> , 2000 , 364, 23-33	2.9	9
45	Anharmonicity of short-wavelength acoustic phonons in silicon at high temperatures. <i>JETP Letters</i> , 2000 , 72, 195-198	1.2	12
44	1D-3D crossover in hopping conduction of carbynes. <i>JETP Letters</i> , 2000 , 72, 381-384	1.2	5
43	Martensitic transition in single-crystalline β -GeO ₂ at compression. <i>JETP Letters</i> , 2000 , 71, 293-297	1.2	19
42	High-pressure synthesis of metastable ternary solid solutions between tetrahedral semiconductors. <i>Inorganic Materials</i> , 2000 , 36, 431-436	0.9	

41	Universal viscosity growth in metallic melts at megabar pressures: the vitreous state of the Earth's inner core. <i>Physics-Uspekhi</i> , 2000 , 43, 493-508	2.8	37
40	Local structure of bulk amorphous and crystalline (GaSb) _{1-x} (Ge ₂) _x . <i>Physical Review B</i> , 2000 , 61, 1907-1913	3.3	3
39	Comment on "New metallic crystalline carbon: three dimensionally polymerized C ₆₀ fullerite". <i>Physical Review Letters</i> , 2000 , 85, 5671-2	7.4	11
38	Hardening of fullerite C ₆₀ during temperature-induced polymerization and amorphization under pressure. <i>Applied Physics Letters</i> , 2000 , 76, 712-714	3.4	39
37	Transformations in amorphous solids under high pressures. <i>Physics-Uspekhi</i> , 1999 , 42, 1059-1062	2.8	3
36	Local atomic ordering in bulk amorphous (GaSb) _{1-x} Ge _{2x} . <i>Journal of Synchrotron Radiation</i> , 1999 , 6, 492-494	2.4	1
35	Mechanism and kinetics of the reversible transformation lda-hda of amorphous ice under pressure. <i>JETP Letters</i> , 1999 , 69, 694-700	1.2	18
34	Mechanism of the formation of a diamond nanocomposite during transformations of C ₆₀ fullerite at high pressure. <i>JETP Letters</i> , 1999 , 69, 869-875	1.2	15
33	Non-Traditional Carbon Semiconductors Prepared from Fullerite C ₆₀ and Carbyne under High Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 1999 , 211, 401-412	1.3	37
32	Non-Traditional Carbon Semiconductors Prepared from Fullerite C ₆₀ and Carbyne under High Pressure 1999 , 211, 401		1
31	Thermopower in the hopping conductivity region: Transition from Mott's to Zvyagin's formula. <i>JETP Letters</i> , 1998 , 68, 842-847	1.2	5
30	Logarithmic Kinetics of the Amorphous-Amorphous Transformations in SiO ₂ and GeO ₂ Glasses under High Pressure. <i>Physical Review Letters</i> , 1998 , 80, 999-1002	7.4	202
29	Mechanical properties of the 3D polymerized, sp ² sp ³ amorphous, and diamond-plus-graphite nanocomposite carbon phases prepared from C ₆₀ under high pressure. <i>Journal of Applied Physics</i> , 1998 , 84, 219-226	2.5	79
28	Mechanical Properties of the Superhard Polymeric and Disordered Phases Prepared from C ₆₀ , C ₇₀ , and C ₂ N under High Pressure.. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1998 , 7, 989-991	0	14
27	Elastic Softening of Amorphous H ₂ O Network prior to the hda-lda Transition in Amorphous State.. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1998 , 7, 1129-1131	0	20
26	Kinetics of Amorphous-to-Amorphous Transformations in SiO ₂ and GeO ₂ Glasses under High Pressure.. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1998 , 7, 347-352	0	10
25	Three-Dimensional Polymerization of Fullerite C ₆₀ under High Pressure.. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1998 , 7, 811-813	0	8
24	Structural Transformations in Fullerite C ₆₀ under High-Pressure(P=12.5GPa) and High-Temperature Conditions.. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1998 , 7, 817-819	0	8

23	Elastic softness of amorphous tetrahedrally bonded GaSb and $(\text{Ge}_2)_{0.27}(\text{GaSb})_{0.73}$ semiconductors. <i>Physical Review B</i> , 1997 , 56, 990-993	3-3	14
22	Metastable crystalline and amorphous carbon phases obtained from fullerite C60 by high-pressure-high-temperature treatment. <i>Physical Review B</i> , 1997 , 56, 11465-11471	3-3	63
21	Comment on "Cauchy Relation in Dense H2O Ice VII" <i>Physical Review Letters</i> , 1997 , 78, 2493-2493	7-4	15
20	Onset of a nonoptimal hopping regime for ac conductivity in amorphous gallium antimonide. <i>JETP Letters</i> , 1997 , 65, 342-348	1.2	3
19	Structural transformations of the cumulene form of amorphous carbyne at high pressure. <i>JETP Letters</i> , 1997 , 66, 255-260	1.2	4
18	Lattice instability approach to the problem of high-pressure solid-state amorphization. <i>High Pressure Research</i> , 1996 , 15, 9-30	1.6	36
17	Mechanism of three-dimensional polymerization of fullerite C60 at high pressures. <i>JETP Letters</i> , 1996 , 64, 802-807	1.2	29
16	Nonequilibrium Phase Transformations in Diamond and Zincblende Semiconductors under High Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 1996 , 198, 481-490	1.3	20
15	Structural Studies of Bulk Amorphous GaSb under High Pressures. <i>Physica Status Solidi (B): Basic Research</i> , 1996 , 198, 503-508	1.3	9
14	Transformations of C60 fullerite under high-pressure high-temperature conditions. <i>Physics-Uspekhi</i> , 1996 , 39, 837-840	2.8	22
13	Pressure-induced distortion of the amorphous tetrahedral network in a-GaSb: Direct evidence from EXAFS. <i>Physical Review B</i> , 1996 , 54, R14242-R14245	3-3	12
12	Pressure-induced lattice instability and solid-state amorphization. <i>Physical Review B</i> , 1996 , 54, 12036-12048	3-3	34
11	Phase transformations and the nature of the semiconductor-to-metal transition in bulk a-GaSb and $a-(\text{Ge}_2)_{1-x}(\text{GaSb})_x$ semiconductors under high pressure. <i>Physical Review B</i> , 1996 , 54, 1808-1818	3-3	10
10	Preparation of a new class of semiconductors: bulk amorphous tetrahedral solid solutions $\text{Ge}_{1-x}(\text{GaSb})_x$. <i>Journal of Materials Science</i> , 1995 , 30, 443-446	4-3	16
9	Nonequilibrium phase transitions and amorphization in Si, Si/GaAs, Ge, and Ge/GaSb at the decompression of high-pressure phases. <i>Physical Review B</i> , 1995 , 51, 7549-7554	3-3	58
8	Semiconductor-to-metal transition in bulk amorphous gallium antimonide under high pressure. <i>High Pressure Research</i> , 1994 , 13, 55-59	1.6	
7	Amorphous semiconductors prepared by quenching under high pressure. <i>Physics-Uspekhi</i> , 1994 , 37, 185-217	2.8	2
6	High pressure solid state amorphization of Si, Ge and solid solutions Si:GaAs, Ge:GaSb. <i>High Pressure Research</i> , 1994 , 13, 47-49	1.6	3

- 5 Nature of semiconductor-to-metal transition and volume properties of bulk tetrahedral amorphous GaSb and GaSb-Ge semiconductors under high pressure. *Physical Review Letters*, **1994**, 73, 3262-3265 7.4 30
- 4 The kinetics of decay of supersaturated solid solutions Al(Si) produced under high pressure. *Physica Status Solidi A*, **1993**, 140, 127-133 4
- 3 Properties of Al-Si alloys prepared by rapid quenching from the melt under high pressure. *High Pressure Research*, **1991**, 7, 274-276 1.6
- 2 Harder than diamond: Dreams and reality 20
- 1 Pressure-Driven Liquid-Liquid Transformations and Corresponding Bizarre Viscosity Behavior. *Advances in Chemical Physics*, 29-50