

Vadim Brazhkin

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303 papers	5,882 citations	37 h-index	63 g-index
310 ext. papers	6,435 ext. citations	2.8 avg, IF	6.11 L-index

#	Paper	IF	Citations
303	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
302	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
301	Toroid type high-pressure device: history and prospects. <i>High Pressure Research</i> , 2004 , 24, 371-383	1.6	201
300	Two liquid states of matter: a dynamic line on a phase diagram. <i>Physical Review E</i> , 2012 , 85, 031203	2.4	175
299	Collective modes and thermodynamics of the liquid state. <i>Reports on Progress in Physics</i> , 2016 , 79, 016502	24.4	148
298	High-pressure transformations in simple melts. <i>High Pressure Research</i> , 1997 , 15, 267-305	1.6	135
297	The phonon theory of liquid thermodynamics. <i>Scientific Reports</i> , 2012 , 2, 421	4.9	132
296	"Liquid-gas" transition in the supercritical region: fundamental changes in the particle dynamics. <i>Physical Review Letters</i> , 2013 , 111, 145901	7.4	127
295	High-pressure phase transformations in liquids and amorphous solids. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, 6059-6084	1.8	123
294	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
293	Thermodynamic behaviour of supercritical matter. <i>Nature Communications</i> , 2013 , 4, 2331	17.4	88
292	Where is the supercritical fluid on the phase diagram?. <i>Physics-Uspekhi</i> , 2012 , 55, 1061-1079	2.8	83
291	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
290	High-pressure synthesized materials: treasures and hints. <i>High Pressure Research</i> , 2007 , 27, 333-351	1.6	78
289	Network rigidity and properties of SiO ₂ and GeO ₂ glasses under pressure. <i>Physical Review Letters</i> , 2004 , 93, 135502	7.4	78
288	Emergence and Evolution of the k Gap in Spectra of Liquid and Supercritical States. <i>Physical Review Letters</i> , 2017 , 118, 215502	7.4	66
287	Thermodynamic properties of supercritical carbon dioxide: Widom and Frenkel lines. <i>Physical Review E</i> , 2015 , 91, 022111	2.4	66

286	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
285	Metastable crystalline and amorphous carbon phases obtained from fullerite C ₆₀ by high-pressure-high-temperature treatment. <i>Physical Review B</i> , 1997 , 56, 11465-11471	3.3	63
284	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
283	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
282	What separates a liquid from a gas?. <i>Physics Today</i> , 2012 , 65, 68-69	0.9	52
281	Glassy dynamics under superhigh pressure. <i>Physical Review E</i> , 2010 , 81, 041503	2.4	51
280	Van der Waals supercritical fluid: exact formulas for special lines. <i>Journal of Chemical Physics</i> , 2011 , 135, 084503	3.9	50
279	Metallization of liquid iodine under high pressure. <i>High Pressure Research</i> , 1991 , 6, 363-369	1.6	48
278	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
277	Lattice parameters and thermal expansion of superconducting boron-doped diamonds. <i>Physical Review B</i> , 2006 , 74,	3.3	45
276	Frenkel line and solubility maximum in supercritical fluids. <i>Physical Review E</i> , 2015 , 91, 012112	2.4	44
275	Gapped momentum states. <i>Physics Reports</i> , 2020 , 865, 1-44	27.7	42
274	Understanding the problem of glass transition on the basis of elastic waves in a liquid. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 425104	1.8	41
273	AsS melt under pressure: one substance, three liquids. <i>Physical Review Letters</i> , 2008 , 100, 145701	7.4	40
272	True Widom line for a square-well system. <i>Physical Review E</i> , 2014 , 89, 042136	2.4	39
271	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
270	Experimental evidence of the Frenkel line in supercritical neon. <i>Physical Review B</i> , 2017 , 95,	3.3	38
269	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

- 268 Non-Traditional Carbon Semiconductors Prepared from Fullerite C60 and Carbyne under High Pressure. *Physica Status Solidi (B): Basic Research*, **1999**, 211, 401-412 1.3 37
- 267 Pressure-temperature phase diagram of solid and liquid Te under pressures up to 10 GPa. *Journal of Physics Condensed Matter*, **1992**, 4, 1419-1425 1.8 37
- 266 Lattice instability approach to the problem of high-pressure solid-state amorphization. *High Pressure Research*, **1996**, 15, 9-30 1.6 36
- 265 Evidence for structural crossover in the supercritical state. *Journal of Chemical Physics*, **2013**, 139, 234501.9 34
- 264 Pressure-induced lattice instability and solid-state amorphization. *Physical Review B*, **1996**, 54, 12036-12048 3.9 34
- 263 Collective excitations and thermodynamics of disordered state: new insights into an old problem. *Journal of Physical Chemistry B*, **2014**, 118, 11417-27 3.4 32
- 262 Dynamical crossover line in supercritical water. *Scientific Reports*, **2015**, 5, 14234 4.9 32
- 261 Mechanism of formation of the superhard disordered graphite-like phase from fullerite C60 under pressure. *Journal of Physics Condensed Matter*, **2005**, 17, 249-256 1.8 32
- 260 The influence of high pressure on the disordering of the crystal structure of solids rapidly quenched from the melt. *Physica Scripta*, **1989**, 39, 338-340 2.6 32
- 259 Hard and superhard carbon phases synthesized from fullerites under pressure. *Journal of Superhard Materials*, **2012**, 34, 400-423 0.9 31
- 258 Myths about new ultrahard phases: Why materials that are significantly superior to diamond in elastic moduli and hardness are impossible. *Journal of Applied Physics*, **2019**, 125, 130901 2.5 30
- 257 Excitation spectra in fluids: How to analyze them properly. *Scientific Reports*, **2019**, 9, 10483 4.9 30
- 256 Metastable phases and metastable phase diagrams. *Journal of Physics Condensed Matter*, **2006**, 18, 9643-9650 4.5 30
- 255 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
- 254 The heat capacity of matter beyond the Dulong-Petit value. *Journal of Physics Condensed Matter*, **2013**, 25, 235401 1.8 29
- 253 Energy dispersive x-ray diffraction and reverse Monte Carlo structural study of liquid gallium under pressure. *Physical Review B*, **2012**, 86, 3.3 29
- 252 Fabrication of Boron by chemical-reaction and melt-quenching methods at high pressures. *Journal of Materials Research*, **2004**, 19, 1643-1648 2.5 29
- 251 Mechanism of three-dimensional polymerization of fullerite C60 at high pressures. *JETP Letters*, **1996**, 64, 802-807 1.2 29

250	Temperature-induced amorphization of SiO ₂ stishovite. <i>Physical Review B</i> , 1994 , 50, 12984-12986	3.3	29
249	Transformations of C ₆₀ fullerite under high-pressure high-temperature conditions. <i>Uspekhi Fizicheskikh Nauk</i> , 1996 , 166, 893	0.5	29
248	Duality of liquids. <i>Scientific Reports</i> , 2013 , 3, 2188	4.9	28
247	Elastic properties of crystalline and liquid gallium at high pressures. <i>Journal of Experimental and Theoretical Physics</i> , 2008 , 107, 818-827	1	28
246	Elastic properties of superhard amorphous carbon pressure-synthesized from C ₆₀ by surface Brillouin scattering. <i>Physical Review B</i> , 2001 , 64,	3.3	28
245	Pressure-driven "molecular metal" to "atomic metal" transition in crystalline Ga. <i>Physical Review Letters</i> , 2007 , 98, 165503	7.4	27
244	Interplay between the structure and properties of new metastable carbon phases obtained under high pressures from fullerite C ₆₀ and carbyne. <i>JETP Letters</i> , 2002 , 76, 681-692	1.2	27
243	Pressure-temperature diagram of liquid bismuth. <i>Journal of Physics Condensed Matter</i> , 1992 , 4, 1427-1431	1.8	27
242	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
241	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
240	. <i>Physics-Uspekhi</i> , 2006 , 49, 719	2.8	25
239	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
238	Crossover between liquidlike and gaslike behavior in CH ₄ at 400 K. <i>Physical Review E</i> , 2017 , 96, 052113	13.4	24
237	Dynamic transition in supercritical iron. <i>Scientific Reports</i> , 2014 , 4, 7194	4.9	24
236	Dielectric spectroscopy and ultrasonic study of propylene carbonate under ultra-high pressures. <i>Journal of Chemical Physics</i> , 2012 , 137, 084502	3.9	24
235	Bulk graphanes synthesized from benzene and pyridine. <i>CrystEngComm</i> , 2017 , 19, 958-966	3.3	23
234	Universal crossover of liquid dynamics in supercritical region. <i>JETP Letters</i> , 2012 , 95, 164-169	1.2	23
233	AsS: Bulk inorganic molecular-based chalcogenide glass. <i>Applied Physics Letters</i> , 2007 , 91, 031912	3.4	23

232	Elastic moduli and the mechanical properties of stishovite single crystals. <i>Physics-Uspekhi</i> , 2002 , 45, 447-448	4.8	23
231	Multiple Amorphous-Amorphous Transitions. <i>Advances in Chemical Physics</i> , 2009 , 29-82		22
230	Optical absorption and luminescence of germanium oxygen-deficient centers in densified germanosilicate glass. <i>Optics Letters</i> , 1997 , 22, 1089-91	3	22
229	Transformations of C60fullerite under high-pressure high-temperature conditions. <i>Physics-Uspekhi</i> , 1996 , 39, 837-840	2.8	22
228	Interparticle interaction in condensed media: some elements are 'more equal than others'. <i>Physics-Uspekhi</i> , 2009 , 52, 369-376	2.8	21
227	Ultrasonic study of the phase diagram of methanol. <i>JETP Letters</i> , 2004 , 80, 597-601	1.2	21
226	Direct links between dynamical, thermodynamic, and structural properties of liquids: Modeling results. <i>Physical Review E</i> , 2017 , 95, 032116	2.4	20
225	Pressure-Induced Amorphization and a New High Density Amorphous Metallic Phase in Matrix-Free Ge Nanoparticles. <i>Nano Letters</i> , 2015 , 15, 7334-40	11.5	20
224	Thermodynamically Consistent p-T Phase Diagram of Boron Oxide B2O3 by in Situ Probing and Thermodynamic Analysis. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 20600-20605	3.8	20
223	Comparative studies of mechanical properties of stishovite and sapphire single crystals by nanoindentation. <i>Journal of Superhard Materials</i> , 2010 , 32, 406-414	0.9	20
222	First-principles calculations of structural changes in B2O3 glass under pressure. <i>Physical Review B</i> , 2008 , 78,	3.3	20
221	Nonviscous metallic liquid Se. <i>Physical Review Letters</i> , 2007 , 99, 245901	7.4	20
220	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
219	Elastic Softening of Amorphous H2O 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
218	Harder than diamond: Dreams and reality		20
217	Dynamics, thermodynamics and structure of liquids and supercritical fluids: crossover at the Frenkel line. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 134003	1.8	19
216	Direct observations of the viscosity of Earth's outer core and extrapolation of measurements of the viscosity of liquid iron. <i>Physics-Uspekhi</i> , 2009 , 52, 79-92	2.8	19
215	Structure of bulk amorphous GaSb: A temperature-dependent EXAFS study. <i>Physical Review B</i> , 1997 , 56, 11531-11535	3.3	19

214	Martensitic transition in single-crystalline β -GeO ₂ at compression. <i>JETP Letters</i> , 2000 , 71, 293-297	1.2	19
213	Crossover of collective modes and positive sound dispersion in supercritical state. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 43LT01	1.8	19
212	Minimal quantum viscosity from fundamental physical constants. <i>Science Advances</i> , 2020 , 6, eaba3747	14.3	18
211	Viscosity behavior spanning four orders of magnitude in As-S melts under high pressure. <i>Physical Review Letters</i> , 2009 , 102, 115901	7.4	18
210	Investigation of the crystallization of liquid iron under pressure: Extrapolation of the melt viscosity into the megabar range. <i>JETP Letters</i> , 1998 , 68, 502-508	1.2	18
209	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
208	Pressure-induced crossover between diffusive and displacive mechanisms of phase transitions in single-crystalline α -GeO ₂ . <i>Physical Review Letters</i> , 2003 , 90, 145503	7.4	18
207	Mechanism and kinetics of the reversible transformation I_{h} - I_{h} of amorphous ice under pressure. <i>JETP Letters</i> , 1999 , 69, 694-700	1.2	18
206	Comparative nanoindentation of single crystals of hard and superhard oxides. <i>Journal of Superhard Materials</i> , 2014 , 36, 217-230	0.9	17
205	Transport coefficients of soft sphere fluid at high densities. <i>JETP Letters</i> , 2012 , 95, 320-325	1.2	17
204	Properties of liquid iron along the melting line up to Earth-core pressures. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 285104	1.8	17
203	Pressure-induced structural transformation in radiation-amorphized zircon. <i>Physical Review Letters</i> , 2007 , 98, 135502	7.4	17
202	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
201	Elastic constants of stishovite up to its amorphization temperature. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, 1869-1875	1.8	17
200	Collective modes and gapped momentum states in liquid Ga: Experiment, theory, and simulation. <i>Physical Review B</i> , 2020 , 101,	3.3	16
199	Dynamic transition of supercritical hydrogen: defining the boundary between interior and atmosphere in gas giants. <i>Physical Review E</i> , 2014 , 89, 032126	2.4	16
198	Densified low-hygroscopic form of P ₂ O ₅ glass. <i>Journal of Materials Chemistry</i> , 2011 , 21, 10442		16
197	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

196	Two scenarios for phase-transformation in disordered media. <i>JETP Letters</i> , 2003 , 78, 542-547	1.2	16
195	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
194	Pressure-induced change in the relaxation dynamics of glycerol. <i>JETP Letters</i> , 2010 , 92, 479-483	1.2	15
193	Comment on "Cauchy Relation in Dense H_2O Ice VII" <i>Physical Review Letters</i> , 1997 , 78, 2493-2493	7.4	15
192	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
191	Enhancement of electron-phonon interactions in the nonequilibrium solid solutions $\text{Al}_{1-x}\text{Si}_x$. <i>Physical Review B</i> , 1995 , 51, 1112-1116	3.3	15
190	Universal Effect of Excitation Dispersion on the Heat Capacity and Gapped States in Fluids. <i>Physical Review Letters</i> , 2020 , 125, 125501	7.4	15
189	Anticrossing of Longitudinal and Transverse Modes in Simple Fluids. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 4470-4475	6.4	14
188	Isoviscosity lines and the liquid-glass transition in simple liquids. <i>Physical Review E</i> , 2012 , 86, 011503	2.4	14
187	Structural transformation yielding an unusual metallic state in liquid As_2S_3 under high pressure. <i>Physical Review B</i> , 2010 , 82,	3.3	14
186	Comment on "Sixfold-coordinated amorphous polymorph of SiO_2 under high pressure". <i>Physical Review Letters</i> , 2009 , 102, 209603; discussion 209604	7.4	14
185	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
184	Crossover between the thermodynamic and nonequilibrium scenarios of structural transformations of H_2O Ih ice during compression. <i>Journal of Experimental and Theoretical Physics</i> , 2002 , 94, 283-292	1	14
183	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
182	Comment on "Behavior of Supercritical Fluids across the 'Frenkel Line'". <i>Journal of Physical Chemistry B</i> , 2018 , 122, 6124-6128	3.4	13
181	Vivid Manifestation of Nonergodicity in Glassy Propylene Carbonate at High Pressures. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 7593-7	3.4	13
180	Helium at elevated pressures: Quantum liquid with non-static shear rigidity. <i>Journal of Applied Physics</i> , 2013 , 113, 103514	2.5	13
179	Investigation of polyamorphism in compressed B_2O_3 glass by the direct measurement of the density. <i>JETP Letters</i> , 2009 , 89, 244-248	1.2	13

178	Thermopower of Al _{1-x} Six solid solutions in vicinity of lattice instability. <i>Journal of Experimental and Theoretical Physics</i> , 1998 , 86, 190-196	1	13
177	Structural and elastic anisotropy of carbon phases prepared from fullerite C ₆₀ . <i>Applied Physics Letters</i> , 2003 , 83, 3903-3905	3-4	13
176	Precise in situ study of the kinetics of pressure-induced phase transition in CaF ₂ including initial transformation stages. <i>Journal of Experimental and Theoretical Physics</i> , 2005 , 100, 971-976	1	13
175	Boron oxides under pressure: Prediction of the hardest oxides. <i>Physical Review B</i> , 2018 , 98,	3-3	13
174	Yang et al. Reply. <i>Physical Review Letters</i> , 2018 , 120, 219602	7-4	13
173	Phase transformations in liquids and the liquid-gas transition in fluids at supercritical pressures. <i>Physics-Uspekhi</i> , 2017 , 60, 954-957	2-8	12
172	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
171	Anharmonicity of short-wavelength acoustic phonons in silicon at high temperatures. <i>JETP Letters</i> , 2000 , 72, 195-198	1-2	12
170	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
169	Anomalies of the baric and temperature dependences of the elastic characteristics of ice during solid-phase amorphization and the phase transition in the amorphous state. <i>Journal of Experimental and Theoretical Physics</i> , 1997 , 85, 109-113	1	11
168	Electron transport in carbynes modified under high pressure. <i>JETP Letters</i> , 2003 , 78, 511-519	1-2	11
167	Comment on "New metallic crystalline carbon: three dimensionally polymerized C ₆₀ fullerite". <i>Physical Review Letters</i> , 2000 , 85, 5671-2	7-4	11
166	As ₂ Te ₃ glass under high hydrostatic pressure: Polyamorphism, relaxation, and metallization. <i>Physical Review B</i> , 2017 , 95,	3-3	10
165	Bizarre behavior of heat capacity in crystals due to interplay between two types of anharmonicities. <i>Journal of Chemical Physics</i> , 2018 , 148, 134508	3-9	10
164	Direct Volumetric Study of High-Pressure Driven Polyamorphism and Relaxation in the Glassy Germanium Chalcogenides. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 358-63	3-4	10
163	AsS layered-structure compound: new kind of covalent crystals. <i>CrystEngComm</i> , 2011 , 13, 2599	3-3	10
162	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
161	Nonlocal dielectric relaxation in glycerol. <i>Physical Review B</i> , 2011 , 84,	3-3	10

160	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
159	Phase transformations and the nature of the semiconductor-to-metal transition in bulk a-GaSb and a-(Ge ₂) _{1-x} (GaSb) _x semiconductors under high pressure. <i>Physical Review B</i> , 1996 , 54, 1808-1818	3.3	10
158	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
157	Experimental and modeling evidence for structural crossover in supercritical CO ₂ . <i>Physical Review E</i> , 2020 , 101, 052109	2.4	9
156	WB : Synthesis, Properties, and Crystal Structure-New Insights into the Long-Debated Compound. <i>Advanced Science</i> , 2020 , 7, 2000775	13.6	9
155	Direct Experimental Evidence of Longitudinal and Transverse Mode Hybridization and Anticrossing in Simple Model Fluids. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 1370-1376	6.4	9
154	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
153	The Frenkel line and supercritical technologies. <i>Russian Journal of Physical Chemistry B</i> , 2014 , 8, 1087-1094	4	9
152	High-pressure phases in the GaSb-Mn system. <i>Physics of the Solid State</i> , 2006 , 48, 2177-2182	0.8	9
151	Structural Studies of Bulk Amorphous GaSb under High Pressures. <i>Physica Status Solidi (B): Basic Research</i> , 1996 , 198, 503-508	1.3	9
150	The kinetics of solidification of Al-Si eutectic alloys under high pressure. <i>High Pressure Research</i> , 1991 , 6, 333-339	1.6	9
149	The influence of high pressure on the solidification of supercooled Se melt. <i>High Pressure Research</i> , 1991 , 6, 341-347	1.6	9
148	Pressure-Driven Chemical Disorder in Glassy AsS up to 14.7 GPa, Postdensification Effects, and Applications in Materials Design. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 430-442	3.4	9
147	Crystallization and glass transition in crude oils and their fractions at atmospheric and high pressures. <i>Journal of Molecular Liquids</i> , 2017 , 241, 428-434	6	8
146	Diamond monohydride: the most stable three-dimensional hydrocarbon. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 17739-44	3.6	8
145	P-T phase diagram and structural transformations of molten P ₂ O ₅ under pressure. <i>Physical Review B</i> , 2014 , 89,	3.3	8
144	High-pressure thermoelectric characteristics of Bi ₂ Te ₃ semiconductor with different charge carrier densities. <i>JETP Letters</i> , 2014 , 99, 283-285	1.2	8
143	High-pressure polymorphism of As ₂ S ₃ and new AsS ₂ modification with layered structure. <i>JETP Letters</i> , 2014 , 98, 539-543	1.2	8

142	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
141	Phase equilibria in partially open systems under pressure: the decomposition of stoichiometric GeO ₂ oxide. <i>Physics-Uspekhi</i> , 2003 , 46, 1283-1289	2.8	8
140	Elastic properties of carbon phases obtained from C ₆₀ under pressure: the first example of anisotropic disordered carbon solid. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 10911-10915	1.8	8
139	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
138	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
137	Extended short-range order determines the overall structure of liquid gallium. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 4122-4129	3.6	8
136	Pronounced structural crossover in water at supercritical pressures. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 385102	1.8	7
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