Vadim Brazhkin

List of Publications by Year in Descending Order

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	The influence of metals on the phase transformations of fullerenes at high pressure and high temperatures. *Materials Letters*, **2022**, 318, 132199	3.3	2
302	Logarithmic Relaxation of the Specific Volume and Optical Properties of GeS2 Densified Glass. *Journal of Experimental and Theoretical Physics*, **2022**, 134, 51-59	1	
301	New Pressure-Induced Phase Transitions in Bismuthinite. *JETP Letters*, **2021**, 114, 470-474	1.2	1
300	The quantum mechanics of viscosity. *Physics Today*, **2021**, 74, 66-67	0.9	1
299	Phase transitions in 1-bromoadamantane compared to 1-chloroadamantane: similarities and unique features. *Physical Chemistry Chemical Physics*, **2021**, 23, 23274-23279	3.6	0
298	Extended Defects in Graphene and Their Contribution to the Excess Specific Heat at High Temperatures. *Physical Review Letters*, **2021**, 126, 165501	7.4	2
297	Similarity between the kinematic viscosity of quark-gluon plasma and liquids at the viscosity minimum. *SciPost Physics*, **2021**, 10,	6.1	1
296	Phase Transformations at High Pressures and Temperatures in Fullerenes with Metal Additives. *Bulletin of the Russian Academy of Sciences: Physics*, **2021**, 85, 765-770	0.4	
295	Comparative study of the elastic properties of adamantane and 1-chloroadamantane at high pressure and different temperatures and at order-disorder transitions. *Physical Chemistry Chemical Physics*, **2021**, 23, 2349-2354	3.6	4
294	Formation of carbides in the interaction of Fe and Al with fullerenes at high pressures and high temperatures. *Materials Letters*, **2021**, 299, 130093	3.3	2
293	Universal interrelation between dynamics and thermodynamics and a dynamically driven "c" transition in fluids. *Physical Review E*, **2021**, 104, 034108	2.4	4
292	Experimental and modeling evidence for structural crossover in supercritical CO_{2}. *Physical Review E*, **2020**, 101, 052109	2.4	9
291	Mechanism of universal conductance fluctuations. *Journal of Physics Condensed Matter*, **2020**, 32, 35LT02	1.8	1
290	Pronounced structural crossover in water at supercritical pressures. *Journal of Physics Condensed Matter*, **2020**, 32, 385102	1.8	7
289	Collective modes and gapped momentum states in liquid Ga: Experiment, theory, and simulation. *Physical Review B*, **2020**, 101,	3.3	16
288	WB : Synthesis, Properties, and Crystal Structure-New Insights into the Long-Debated Compound. *Advanced Science*, **2020**, 7, 2000775	13.6	9
287	Phase transformations of fullerene C70 with metals at high temperatures and pressure. *Materials Letters*, **2020**, 277, 128307	3.3	3

286	Direct Experimental Evidence of Longitudinal and Transverse Mode Hybridization and Anticrossing in Simple Model Fluids. *Journal of Physical Chemistry Letters*, **2020**, 11, 1370-1376	6.4	9
285	Minimal quantum viscosity from fundamental physical constants. *Science Advances*, **2020**, 6, eaba3747	14.3	18
284	Gapped momentum states. *Physics Reports*, **2020**, 865, 1-44	27.7	42
283	High-Precision Studies of the Compressibility and Relaxation of g-As2S3 Glasses at High Hydrostatic Pressures up to 8.6 GPa. *Journal of Experimental and Theoretical Physics*, **2020**, 130, 571-578	1	1
282	Hierarchy of Times for the Establishment of the Gibbs Distribution. *Doklady Physics*, **2020**, 65, 379-382	0.8	1
281	Ultrahard nanomaterials: myths and reality. *Physics-Uspekhi*, **2020**, 63, 523-544	2.8	4
280	Kinetic Model of Softening of Glasses. *JETP Letters*, **2020**, 112, 745-751	1.2	0
279	Extended short-range order determines the overall structure of liquid gallium. *Physical Chemistry Chemical Physics*, **2020**, 22, 4122-4129	3.6	8
278	Pressure-Driven Chemical Disorder in Glassy AsS up to 14.7 GPa, Postdensification Effects, and Applications in Materials Design. *Journal of Physical Chemistry B*, **2020**, 124, 430-442	3.4	9
277	Speed of sound from fundamental physical constants. *Science Advances*, **2020**, 6,	14.3	7
276	Melting and decomposition of orthorhombic B6Si under high pressure. *High Pressure Research*, **2020**, 40, 488-494	1.6	
275	Universal Effect of Excitation Dispersion on the Heat Capacity and Gapped States in Fluids. *Physical Review Letters*, **2020**, 125, 125501	7.4	15
274	Phase Transformations in C60 Fullerene with Iron and Aluminum at High Pressures and Temperatures. *Bulletin of the Russian Academy of Sciences: Physics*, **2020**, 84, 851-856	0.4	2
273	Experimental study of water thermodynamics up to 1.2 GPa and 473 K. *Journal of Chemical Physics*, **2020**, 152, 154501	3.9	3
272	Quantum Isotope Effect in Silicon at Low Temperatures. *Journal of Experimental and Theoretical Physics*, **2019**, 128, 207-211	1	1
271	The nature of collective excitations and their crossover at extreme supercritical conditions. *Scientific Reports*, **2019**, 9, 755	4.9	6
270	Elastic properties of liquid and glassy propane-based alcohols under high pressure: the increasing role of hydrogen bonds in a homologous family. *Physical Chemistry Chemical Physics*, **2019**, 21, 2665-2672	3.6	6
269	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

268	Order versus disorder: In situ high-pressure structural study of highly polymerized three-dimensional C60 fullerite. *Journal of Applied Physics*, **2019**, 126, 065102	2.5	3
267	Structure of the Al90Y10 Alloy Formed upon Pressure Solidification. *Russian Metallurgy (Metally)*, **2019**, 2019, 135-138	0.5	1
266	Anticrossing of Longitudinal and Transverse Modes in Simple Fluids. *Journal of Physical Chemistry Letters*, **2019**, 10, 4470-4475	6.4	14
265	Excitation spectra in fluids: How to analyze them properly. *Scientific Reports*, **2019**, 9, 10483	4.9	30
264	Can glassforming liquids be 'simple'?. *Physics-Uspekhi*, **2019**, 62, 623-629	2.8	6
263	Interaction between FeNi Austenitic Alloy and Minor Amounts of Mechanically Milled C60 Fullerene at High Temperatures and Pressures. *Bulletin of the Russian Academy of Sciences: Physics*, **2019**, 83, 1219-1222	0.4	
262	Can glassforming liquids be 'simple'?. *Uspekhi Fizicheskikh Nauk*, **2019**, 189, 665-672	0.5	2
261	Thermodynamic heterogeneity and crossover in the supercritical state of matter. *Journal of Physics Condensed Matter*, **2019**, 31, 225401	1.8	3
260	Direct Raman Spectroscopy Observation of Quantum Isotope Effects in Isotopically Pure Germanium Single Crystals. *JETP Letters*, **2019**, 110, 687-690	1.2	0
259	Disordering in Pyridine at High Pressures. *JETP Letters*, **2019**, 110, 603-606	1.2	2
258	Bizarre behavior of heat capacity in crystals due to interplay between two types of anharmonicities. *Journal of Chemical Physics*, **2018**, 148, 134508	3.9	10
257	Dynamics, thermodynamics and structure of liquids and supercritical fluids: crossover at the Frenkel line. *Journal of Physics Condensed Matter*, **2018**, 30, 134003	1.8	19
256	Comment on "Behavior of Supercritical Fluids across the 'Frenkel Line'". *Journal of Physical Chemistry B*, **2018**, 122, 6124-6128	3.4	13
255	The structure and synthesis of organic crystalline polymers: hints from ab initio computation. *CrystEngComm*, **2018**, 20, 4003-4011	3.3	3
254	Compressibility, Electrical Conductivity, and Crystallization of Glassy Selenium at a High Pressure. *Journal of Experimental and Theoretical Physics*, **2018**, 127, 1118-1124	1	1
253	Boron oxides under pressure: Prediction of the hardest oxides. *Physical Review B*, **2018**, 98,	3.3	13
252	Phase Transitions in a Mixture of Amorphous C60 and C70 Fullerene Phases at High Temperatures and Pressures. *Bulletin of the Russian Academy of Sciences: Physics*, **2018**, 82, 1096-1100	0.4	1
251	Secondary Relaxation in Supercooled Liquid Propylene Glycol under Ultrahigh Pressures Revealed by Dielectric Spectroscopy Measurements. *Journal of Physical Chemistry B*, **2018**, 122, 9032-9037	3.4	

250	Universal Features of the Electron Transport in Tungsten–Carbon Nanocomposites. *Journal of Low Temperature Physics*, **2018**, 192, 299-314	1.3	1
249	Thermodynamics of a Magnetic Transition in MnS2 at High Pressures. *JETP Letters*, **2018**, 107, 311-314	1.2	4
248	Yang et al. Reply. *Physical Review Letters*, **2018**, 120, 219602	7.4	13
247	Bulk graphanes synthesized from benzene and pyridine. *CrystEngComm*, **2017**, 19, 958-966	3.3	23
246	As2Te3 glass under high hydrostatic pressure: Polyamorphism, relaxation, and metallization. *Physical Review B*, **2017**, 95,	3.3	10
245	Direct links between dynamical, thermodynamic, and structural properties of liquids: Modeling results. *Physical Review E*, **2017**, 95, 032116	2.4	20
244	Crystallization and glass transition in crude oils and their fractions at atmospheric and high pressures. *Journal of Molecular Liquids*, **2017**, 241, 428-434	6	8
243	Graphitization and preparation of diamond in an amorphous carbon material at high pressures and temperatures. *Inorganic Materials*, **2017**, 53, 154-159	0.9	2
242	High-precision measurements of the compressibility and the electrical resistivity of bulk g-As2Te3 glasses at a hydrostatic pressure up to 8.5 GPa. *Journal of Experimental and Theoretical Physics*, **2017**, 125, 451-464	1	4
241	Elastic properties of the hydrogen-bonded liquid and glassy glycerol under high pressure: comparison with propylene carbonate. *RSC Advances*, **2017**, 7, 33278-33284	3.7	9
240	Emergence and Evolution of the k Gap in Spectra of Liquid and Supercritical States. *Physical Review Letters*, **2017**, 118, 215502	7.4	66
239	Structural and Dielectric Relaxations in Vitreous and Liquid State of Monohydroxy Alcohol at High Pressure. *Journal of Physical Chemistry B*, **2017**, 121, 8203-8210	3.4	7
238	Experimental evidence of the Frenkel line in supercritical neon. *Physical Review B*, **2017**, 95,	3.3	38
237	Phase transformations in liquids and the liquid–gas transition in fluids at supercritical pressures. *Physics-Uspekhi*, **2017**, 60, 954-957	2.8	12
236	Glassy selenium at high pressure: Le Chatelier's principle still works. *Physical Review B*, **2017**, 96,	3.3	4
235	Crossover between liquidlike and gaslike behavior in CH_{4} at 400 K. *Physical Review E*, **2017**, 96, 052113	2.4	24
234	Supercritical Grüneisen parameter and its universality at the Frenkel line. *Physical Review E*, **2017**, 96, 012107	2.4	5
233	Excitation spectra of liquid iron up to superhigh temperatures. *Journal of Physics Condensed Matter*, **2017**, 29, 345401	1.8	3

232	Effect of deuterium on phase transformations in fullerenes at high temperatures and high pressures. *Bulletin of the Russian Academy of Sciences: Physics*, **2017**, 81, 1330-1335	0.4	
231	Phase transformations in liquids and the liquid–gas transition in fluids at supercritical pressures. *Uspekhi Fizicheskikh Nauk*, **2017**, 187, 1028-1032	0.5	3
230	Vivid Manifestation of Nonergodicity in Glassy Propylene Carbonate at High Pressures. *Journal of Physical Chemistry B*, **2016**, 120, 7593-7	3.4	13
229	Raman spectroscopy of isotopically pure (12C, 13C) and isotopically mixed (12.5C) diamond single crystals at ultrahigh pressures. *Journal of Experimental and Theoretical Physics*, **2016**, 123, 443-451	1	3
228	Study of the compressibility of FeSi, MnSi, and CoS2 transition-metal compounds at high pressures. *JETP Letters*, **2016**, 104, 99-104	1.2	6
227	Anomalous vacuum energy and stability of a quantum liquid. *Journal of Physics Condensed Matter*, **2016**, 28, 12LT01	1.8	2
226	Quantum effects in diamond isotopes at high pressures. *Physical Review B*, **2016**, 93,	3.3	6
225	Direct Volumetric Study of High-Pressure Driven Polyamorphism and Relaxation in the Glassy Germanium Chalcogenides. *Journal of Physical Chemistry B*, **2016**, 120, 358-63	3.4	10
224	Collective modes and thermodynamics of the liquid state. *Reports on Progress in Physics*, **2016**, 79, 016502	14.4	148
223	Behavior of detonation nanodiamond at high pressures and temperatures in the presence of a hydrogen-containing fluid. *Inorganic Materials*, **2016**, 52, 351-356	0.9	7
222	Crossover of collective modes and positive sound dispersion in supercritical state. *Journal of Physics Condensed Matter*, **2016**, 28, 43LT01	1.8	19
221	High-precision measurements of the compressibility of chalcogenide glasses at a hydrostatic pressure up to 9 GPa. *Journal of Experimental and Theoretical Physics*, **2016**, 123, 308-317	1	4
220	Diamond monohydride: the most stable three-dimensional hydrocarbon. *Physical Chemistry Chemical Physics*, **2015**, 17, 17739-44	3.6	8
219	Reply to "Comment on 'Dynamic transition of supercritical hydrogen: Defining the boundary between interior and atmosphere in gas giants' ". *Physical Review E*, **2015**, 91, 036102	2.4	
218	Fluctuation-dissipation theorem and the dielectric response in supercooled liquids. *Journal of Chemical Physics*, **2015**, 142, 104505	3.9	1
217	Pressure-Induced Amorphization and a New High Density Amorphous Metallic Phase in Matrix-Free Ge Nanoparticles. *Nano Letters*, **2015**, 15, 7334-40	11.5	20
216	Thermodynamically Consistent p–T Phase Diagram of Boron Oxide B2O3 by in Situ Probing and Thermodynamic Analysis. *Journal of Physical Chemistry C*, **2015**, 119, 20600-20605	3.8	20
215	Universal behavior of chalcogenides of rare-earth metals in the transition to a state with intermediate valence at high pressures. *Journal of Experimental and Theoretical Physics*, **2015**, 120, 1077-1084	1	

214	Dynamical crossover line in supercritical water. *Scientific Reports*, **2015**, 5, 14234	4.9	32
213	Influence of isotopic disorder on solid state amorphization and polyamorphism in solid H2OD2O solutions. *Physical Review B*, **2015**, 92,	3.3	5
212	Structural transformations in the AsSe system under high pressures and temperatures. *Journal of Alloys and Compounds*, **2015**, 644, 799-803	5.7	3
211	Thermodynamic properties of supercritical carbon dioxide: Widom and Frenkel lines. *Physical Review E*, **2015**, 91, 022111	2.4	66
210	High pressure behavior of P2O5crystalline modifications: compressibility, elastic properties and phase transitions. *Materials Research Express*, **2015**, 2, 025201	1.7	3
209	Frenkel line and solubility maximum in supercritical fluids. *Physical Review E*, **2015**, 91, 012112	2.4	44
208	P-T phase diagram and structural transformations of molten P2O5 under pressure. *Physical Review B*, **2014**, 89,	3.3	8
207	Comparative nanoindentation of single crystals of hard and superhard oxidess. *Journal of Superhard Materials*, **2014**, 36, 217-230	0.9	17
206	Synthesis of advanced fine-grained hard alloys using industrial compounds and tungsten carbide nanopowders. *Nanotechnologies in Russia*, **2014**, 9, 555-558	0.6	
205	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
204	High-pressure, high-temperature study of GeS2 and GeSe2. *Inorganic Materials*, **2014**, 50, 768-774	0.9	6
203	Measurement of bitumen viscosity in a room-temperature drop experiment: student education, public outreach and modern science in one. *Physics Education*, **2014**, 49, 406-411	0.8	2
202	High-pressure thermoelectric characteristics of Bi2Te3 semiconductor with different charge carrier densities. *JETP Letters*, **2014**, 99, 283-285	1.2	8
201	True Widom line for a square-well system. *Physical Review E*, **2014**, 89, 042136	2.4	39
200	Dynamic transition in supercritical iron. *Scientific Reports*, **2014**, 4, 7194	4.9	24
199	The Frenkel line and supercritical technologies. *Russian Journal of Physical Chemistry B*, **2014**, 8, 1087-1094	1.2	9
198	Metallization in the molten and solid state and phase diagrams of the GeSe2 and GeS2 under high pressure. *JETP Letters*, **2014**, 100, 451-454	1.2	1
197	Crystallization and vitrification of ethanol at high pressures. *Journal of Chemical Physics*, **2014**, 141, 194504	3.3	6

196	Solid-state diffusion in amorphous zirconolite. *Journal of Applied Physics*, **2014**, 116, 184901	2.5	3
195	Dynamic transition of supercritical hydrogen: defining the boundary between interior and atmosphere in gas giants. *Physical Review E*, **2014**, 89, 032126	2.4	16
194	General behavior of chalcogenides of rare-earth metals in transition to the intermediate valence state under high pressures. *Physical Review B*, **2014**, 90,	3.3	7
193	High-pressure polymorphism of As2S3 and new AsS2 modification with layered structure. *JETP Letters*, **2014**, 98, 539-543	1.2	8
192	Magnetic, kinetic, and optical properties of new high-pressure phases in the system CrGaSb: Ab initio density functional theory study. *International Journal of Quantum Chemistry*, **2013**, 113, 820-829	2.1	3
191	Thermodynamic behaviour of supercritical matter. *Nature Communications*, **2013**, 4, 2331	17.4	88
190	Thermopower of calcium at high pressures. *JETP Letters*, **2013**, 97, 490-494	1.2	3
189	Electron transport properties of lithium and phase transitions at high pressures. *JETP Letters*, **2013**, 97, 270-273	1.2	3
188	Ultrasonic study of solid-phase amorphization and polyamorphism in an H2O-D2O (1: 1) solid solution. *JETP Letters*, **2013**, 96, 789-793	1.2	3
187	"Liquid-gas" transition in the supercritical region: fundamental changes in the particle dynamics. *Physical Review Letters*, **2013**, 111, 145901	7.4	127
186	Effective introduction of tungsten carbide nanoparticles into a hard alloy. *Nanotechnologies in Russia*, **2013**, 8, 659-663	0.6	3
185	The heat capacity of matter beyond the Dulong-Petit value. *Journal of Physics Condensed Matter*, **2013**, 25, 235401	1.8	29
184	Energy-dispersive X-ray diffraction study of liquid gallium under high pressure at elevated temperatures. *High Pressure Research*, **2013**, 33, 191-195	1.6	5
183	Crystal structure of new AsS2 compound. *Crystallography Reports*, **2013**, 58, 61-64	0.6	4
182	Helium at elevated pressures: Quantum liquid with non-static shear rigidity. *Journal of Applied Physics*, **2013**, 113, 103514	2.5	13
181	Properties of liquid iron along the melting line up to Earth-core pressures. *Journal of Physics Condensed Matter*, **2013**, 25, 285104	1.8	17
180	The high-pressure phase diagram of synthetic epsomite (MgSO4·7H2O and MgSO4·7D2O) from ultrasonic and neutron powder diffraction measurements. *Physics and Chemistry of Minerals*, **2013**, 40, 271-285	1.6	15
179	Lattice dynamics of coesite. *Journal of Physics Condensed Matter*, **2013**, 25, 275401	1.8	3

178	Evidence for structural crossover in the supercritical state. *Journal of Chemical Physics*, **2013**, 139, 234501	3.9	34
177	Duality of liquids. *Scientific Reports*, **2013**, 3, 2188	4.9	28
176	Universal crossover of liquid dynamics in supercritical region. *JETP Letters*, **2012**, 95, 164-169	1.2	23
175	Transport coefficients of soft sphere fluid at high densities. *JETP Letters*, **2012**, 95, 320-325	1.2	17
174	Single-crystal growth of the high-pressure phase B2O3 II. *Crystallography Reports*, **2012**, 57, 332-335	0.6	1
173	Two liquid states of matter: a dynamic line on a phase diagram. *Physical Review E*, **2012**, 85, 031203	2.4	175
172	Dielectric spectroscopy and ultrasonic study of propylene carbonate under ultra-high pressures. *Journal of Chemical Physics*, **2012**, 137, 084502	3.9	24
171	The phonon theory of liquid thermodynamics. *Scientific Reports*, **2012**, 2, 421	4.9	132
170	Where is the supercritical fluid on the phase diagram?. *Physics-Uspekhi*, **2012**, 55, 1061-1079	2.8	83
169	Hard and superhard carbon phases synthesized from fullerites under pressure. *Journal of Superhard Materials*, **2012**, 34, 400-423	0.9	31
168	Energy dispersive x-ray diffraction and reverse Monte Carlo structural study of liquid gallium under pressure. *Physical Review B*, **2012**, 86,	3.3	29
167	Isoviscosity lines and the liquid-glass transition in simple liquids. *Physical Review E*, **2012**, 86, 011503	2.4	14
166	What separates a liquid from a gas?. *Physics Today*, **2012**, 65, 68-69	0.9	52
165	"Lost in Translation": what do the negative values of effective Grüneisen coefficients mean in shock-wave experiments? [Extended comment on "Shock compression of porous metals and silicates" by A.B. Medvedev and R.F. Trunin,Phys. Usp.55773 (2012)]. *Physics-Uspekhi*, **2012**, 55, 790-795	2.8	4
164	"Lost in Translation": what do the negative values of effective Gruneisen parameters mean in shock-wave experiments? (Extended comment on "Shock compression of porous metals and silicates" by A.B. Medvedev and R.F. Trunin, Usp. Fiz. Nauk 182 829 (2012)). *Uspekhi Fizicheskikh Nauk*, **2012**, 182, 847	0.5	1
163	Electrotransport and magnetic properties of Cr-GaSb phases synthesized under high pressure. *Journal of Physics Condensed Matter*, **2011**, 23, 446001	1.8	8
162	Atomistic modeling of multiple amorphous-amorphous transitions in SiO2 and GeO2 glasses at megabar pressures. *Physical Review B*, **2011**, 83,	3.3	25
161	AsS layered-structure compound: new kind of covalent crystals. *CrystEngComm*, **2011**, 13, 2599	3.3	10

160	Pressure-induced structural transformations and the anomalous behavior of the viscosity in network chalcogenide and oxide melts. *JETP Letters*, **2011**, 94, 161-170	1.2	12
159	Widom line for the liquid-gas transition in Lennard-Jones system. *Journal of Physical Chemistry B*, **2011**, 115, 14112-5	3.4	103
158	Densified low-hygroscopic form of P2O5 glass. *Journal of Materials Chemistry*, **2011**, 21, 10442		16
157	Van der Waals supercritical fluid: exact formulas for special lines. *Journal of Chemical Physics*, **2011**, 135, 084503	3.9	50
156	Nonlocal dielectric relaxation in glycerol. *Physical Review B*, **2011**, 84,	3.3	10
155	Pressure-induced change in the relaxation dynamics of glycerol. *JETP Letters*, **2010**, 92, 479-483	1.2	15
154	Glassy dynamics under superhigh pressure. *Physical Review E*, **2010**, 81, 041503	2.4	51
153	Structural transformations and anomalous viscosity in the B2O3 melt under high pressure. *Physical Review Letters*, **2010**, 105, 115701	7.4	45
152	Structural transformation yielding an unusual metallic state in liquid As2S3 under high pressure. *Physical Review B*, **2010**, 82,	3.3	14
151	New Data on Compressibility of Molecular Fullerites C60 and C70. *Fullerenes Nanotubes and Carbon Nanostructures*, **2010**, 18, 406-411	1.8	1
150	Comparative studies of mechanical properties of stishovite and sapphire single crystals by nanoindentation. *Journal of Superhard Materials*, **2010**, 32, 406-414	0.9	20
149	Ultrasonic study of epsomite (MgSO4□7H2O) under pressure. *High Pressure Research*, **2010**, 30, 51-54	1.6	3
148	Comment on "Sixfold-coordinated amorphous polymorph of SiO2 under high pressure". *Physical Review Letters*, **2009**, 102, 209603; discussion 209604	7.4	14
147	Compressibility and polymorphism of □As(4)S(4) realgar under high pressure. *Journal of Physics Condensed Matter*, **2009**, 21, 385401	1.8	10
146	Multiple Amorphous□Amorphous Transitions. *Advances in Chemical Physics*, **2009**, 29-82		22
145	Direct observations of the viscosity of Earth's outer core and extrapolation of measurements of the viscosity of liquid iron. *Physics-Uspekhi*, **2009**, 52, 79-92	2.8	19
144	Interparticle interaction in condensed media: some elements are 'more equal than others'. *Physics-Uspekhi*, **2009**, 52, 369-376	2.8	21
143	Investigation of polyamorphism in compressed B2O3 glass by the direct measurement of the density. *JETP Letters*, **2009**, 89, 244-248	1.2	13

142	Understanding the problem of glass transition on the basis of elastic waves in a liquid. *Journal of Physics Condensed Matter*, **2009**, 21, 425104	1.8	41
141	Viscosity behavior spanning four orders of magnitude in As-S melts under high pressure. *Physical Review Letters*, **2009**, 102, 115901	7.4	18
140	Electro-and magnetotransport properties of disordered carbon phases synthesized from C60 fullerite at moderate pressures P syn JETP Letters, **2008**, 88, 54-58	1.2	
139	High-temperature Transitions of C60 at Moderate Pressures. *Fullerenes Nanotubes and Carbon Nanostructures*, **2008**, 16, 475-485	1.8	4
138	On the 50th anniversary of the L F Vereshchagin Institute for High Pressure Physics, RAS (Scientific outreach session of the Physical Sciences Division of the Russian Academy of Sciences, 23 April 2008). *Physics-Uspekhi*, **2008**, 51, 1055-1083	2.8	2
137	Can high pressure experiments shed light on the puzzles of glass transition? The problem of extrapolation. *Journal of Physics Condensed Matter*, **2008**, 20, 244102	1.8	5
136	Elasticity of Molecular Fullerite C60 under Pressure. *Fullerenes Nanotubes and Carbon Nanostructures*, **2008**, 16, 499-506	1.8	3
135	First-principles calculations of structural changes in B2O3 glass under pressure. *Physical Review B*, **2008**, 78,	3.3	20
134	Nature of the structural transformations in B2O3 glass under high pressure. *Physical Review Letters* , **2008**, 101, 035702	7.4	65
133	AsS melt under pressure: one substance, three liquids. *Physical Review Letters*, **2008**, 100, 145701	7.4	40
132	Elastic properties of crystalline and liquid gallium at high pressures. *Journal of Experimental and Theoretical Physics*, **2008**, 107, 818-827	1	28
131	Nonviscous metallic liquid Se. *Physical Review Letters*, **2007**, 99, 245901	7.4	20
130	Hopping conduction and magnetoresistance of C2N -based nanomaterials synthesized under high pressure. *Physics of the Solid State*, **2007**, 49, 1403-1409	0.8	4
129	High-pressure synthesized materials: treasures and hints. *High Pressure Research*, **2007**, 27, 333-351	1.6	78
128	Molecular-network-ionic structure transitions in liquid AlCl(3) and ZnCl(2) halogenides under pressure. *Journal of Physics Condensed Matter*, **2007**, 19, 246104	1.8	16
127	Pressure-driven "molecular metal" to "atomic metal" transition in crystalline Ga. *Physical Review Letters*, **2007**, 98, 165503	7.4	27
126	AsS: Bulk inorganic molecular-based chalcogenide glass. *Applied Physics Letters*, **2007**, 91, 031912	3.4	23
125	Logarithmic relaxation in radiation-amorphized zircon. *Physical Review B*, **2007**, 76,	3.3	6

124	Pressure-induced structural transformation in radiation-amorphized zircon. *Physical Review Letters*, **2007**, 98, 135502	7.4	17
123	Bulk nanostructured carbon phases prepared from C60: approaching the "ideal" hardness. *Journal of Physics Condensed Matter*, **2007**, 19, 236209	1.8	17
122	. *Physics-Uspekhi*, **2006**, 49, 719	2.8	25
121	Metastable phases and "metastable" phase diagrams. *Journal of Physics Condensed Matter*, **2006**, 18, 9643-9650	1.8	30
120	Anisotropic Carbon Phases Prepared from Fullerite C70 under High Pressure. *Fullerenes Nanotubes and Carbon Nanostructures*, **2006**, 14, 409-414	1.8	5
119	Ferromagnetism in the high-pressure phases of (GaSb)1−x Mnx. *JETP Letters*, **2006**, 84, 195-198	1.2	6
118	Lattice parameters and thermal expansion of superconducting boron-doped diamonds. *Physical Review B*, **2006**, 74,	3.3	45
117	High-pressure phases in the GaSb-Mn system. *Physics of the Solid State*, **2006**, 48, 2177-2182	0.8	9
116	Precise in situ study of the kinetics of pressure-induced phase transition in CaF2 including initial transformation stages. *Journal of Experimental and Theoretical Physics*, **2005**, 100, 971-976	1	13
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