

Sergey Panyukov

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.

89
papers

3,275
citations

29
h-index

56
g-index

92
ext. papers

3,554
ext. citations

4.1
avg, IF

5.51
L-index

#	Paper	IF	Citations
89	Theory of Flexible Polymer Networks: Elasticity and Heterogeneities. <i>Polymers</i> , 2020 , 12,	4.5	13
88	Ion Pairing and the Structure of Gel Coacervates. <i>Macromolecules</i> , 2020 , 53, 9420-9442	5.5	12
87	Loops in Polymer Networks. <i>Macromolecules</i> , 2019 , 52, 4145-4153	5.5	32
86	Unexpected Stretching of Entangled Ring Macromolecules. <i>Physical Review Letters</i> , 2019 , 122, 208001	7.4	47
85	Quantitative Adjustment to the Molecular Energy Parameter in the Lake-Thomas Theory of Polymer Fracture Energy. <i>Macromolecules</i> , 2019 , 52, 2772-2777	5.5	37
84	Structure of Liquid Coacervates Formed by Oppositely Charged Polyelectrolytes. <i>Macromolecules</i> , 2018 , 51, 9572-9588	5.5	40
83	Enhanced nanochannel translocation and localization of genomic DNA molecules using three-dimensional nanofunnels. <i>Nature Communications</i> , 2017 , 8, 807	17.4	39
82	Theory of heterogeneities in polymer networks. <i>Polymer Science - Series A</i> , 2016 , 58, 886-898	1.2	4
81	Molecular structure of bottlebrush polymers in melts. <i>Science Advances</i> , 2016 , 2, e1601478	14.3	144
80	Self-Similar Conformations and Dynamics in Entangled Melts and Solutions of Nonconcatenated Ring Polymers. <i>Macromolecules</i> , 2016 , 49, 708-722	5.5	98
79	The mechanism of solute-enriched clusters formation in neutron-irradiated pressure vessel steels: The case of Fe-Cu model alloys. <i>Journal of Nuclear Materials</i> , 2016 , 477, 193-204	3.3	0
78	Cross-Linking Patterns and Their Images in Swollen and Deformed Gels. <i>Macromolecules</i> , 2015 , 48, 7378-7381	5.5	2
77	Universal behavior of hydrogels confined to narrow capillaries. <i>Scientific Reports</i> , 2015 , 5, 17017	4.9	28
76	Hopping Diffusion of Nanoparticles in Polymer Matrices. <i>Macromolecules</i> , 2015 , 48, 847-862	5.5	145
75	Irradiation induced dimensional changes in bulk graphite: The theory. <i>Journal of Nuclear Materials</i> , 2013 , 439, 72-83	3.3	1
74	Irradiation induced dimensional changes in graphite: The influence of sample size. <i>Journal of Nuclear Materials</i> , 2012 , 420, 241-251	3.3	3
73	Mobility of Nonsticky Nanoparticles in Polymer Liquids. <i>Macromolecules</i> , 2011 , 44, 7853-7863	5.5	251

72	On the kinetic theory of energy losses in a randomly heterogeneous medium. <i>JETP Letters</i> , 2011 , 94, 255-257	1.2	
71	Bond Tension in Tethered Macromolecules. <i>Macromolecules</i> , 2011 , 44, 4520-4529	5.5	38
70	Amplification of tension in branched macromolecules. <i>Physical Review Letters</i> , 2009 , 102, 148301	7.4	42
69	Relation between micro- and macrodeformations and the elasticity constants in application to radiation induced effects in a graphite reactor. <i>Atomic Energy</i> , 2009 , 107, 326-332	0.4	2
68	Mechanism of surface landscape formation in liquid photopolymerized compositions. <i>Mendeleev Communications</i> , 2009 , 19, 206-207	1.9	
67	Tension amplification in molecular brushes in solutions and on substrates. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 3750-68	3.4	90
66	Long-Range Correlations in a Polymer Chain Due to Its Connectivity. <i>Macromolecules</i> , 2008 , 41, 1475-1485	5.5	55
65	Theory of radiation-induced shape-change of graphite. <i>Atomic Energy</i> , 2008 , 105, 32-41	0.4	6
64	Graphs in Chemical Physics of Polymers. <i>Advances in Chemical Physics</i> , 2007 , 115-326		23
63	A correct account of the non-local terms in the Landau theory of phase transitions in polydisperse heteropolymers. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, L43-L48	1.8	17
62	Solution Properties of a Fluorinated Alkyl Methacrylate Polymer in Carbon Dioxide. <i>Macromolecules</i> , 2006 , 39, 3427-3434	5.5	15
61	Explanation of Anomalous Scaling of Swollen Entangled Chains. <i>Macromolecules</i> , 2005 , 38, 3511-3514	5.5	1
60	Small angle neutron scattering studies on structural inhomogeneities in polymer gels: irradiation cross-linked gels vs chemically cross-linked gels. <i>Polymer</i> , 2002 , 43, 5289-5297	3.9	76
59	Buckling of spontaneously twisted ribbons. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 314, 125-129	3.3	
58	Metastable lattice of droplets in phase separating polymer blends. <i>Physical Review E</i> , 2002 , 65, 061803	2.4	1
57	On the deformation of fluctuating chiral ribbons. <i>Europhysics Letters</i> , 2002 , 57, 512-518	1.6	20
56	Elasticity of Polymer Networks. <i>Macromolecules</i> , 2002 , 35, 6670-6686	5.5	346
55	Fluctuating elastic rings: statics and dynamics. <i>Physical Review E</i> , 2001 , 64, 011909	2.4	29

54	New approaches to statistical thermodynamics of blends containing copolymers. <i>Macromolecular Symposia</i> , 2000 , 149, 37-42	0.8	1
53	Fluctuating filaments: statistical mechanics of helices. <i>Physical Review E</i> , 2000 , 62, 7135-46	2.4	48
52	Thermal fluctuations of elastic filaments with spontaneous curvature and torsion. <i>Physical Review Letters</i> , 2000 , 85, 2404-7	7.4	46
51	Statistical physics of interacting dislocation loops and their effect on the elastic moduli of isotropic solids. <i>Physical Review B</i> , 1999 , 59, 13657-13671	3.3	6
50	Microstructure and phase diagrams of polymer gels. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998 , 249, 239-244	3.3	2
49	Molecular theory of solutions and blends of heteropolymers. I. Thermodynamics of amorphous multicomponent polymer systems. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998 , 36, 937-958 ^{2.6}		7
48	Phase diagram of microphase-separated multiblock copolymers. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998 , 249, 321-326	3.3	16
47	Microphase separation in correlated random copolymers: Mean-field theory and fluctuation corrections. <i>Physical Review E</i> , 1998 , 57, 6902-6912	2.4	43
46	Interaction between randomly charged rods and plates: Energy landscapes, stick slip, and recognition at a distance. <i>Physical Review E</i> , 1997 , 56, 7053-7066	2.4	16
45	Scattering Profiles of Charged Gels: Frozen Inhomogeneities, Thermal Fluctuations, and Microphase Separation. <i>Macromolecules</i> , 1997 , 30, 301-312	5.5	89
44	Nonaffine Deformation and Elasticity of Polymer Networks. <i>Macromolecules</i> , 1997 , 30, 8036-8044	5.5	184
43	Statics and Dynamics of the Liquid- and Solidlike Degrees of Freedom in Lightly Cross-Linked Polymer Networks. <i>Journal De Physique, I</i> , 1997 , 7, 273-289		9
42	Microphase separation in multiblock copolymers. <i>Journal of Experimental and Theoretical Physics</i> , 1997 , 85, 183-188	1	17
41	Stress-Induced Ordering in Microphase-Separated Multicomponent Networks. <i>Macromolecules</i> , 1996 , 29, 8220-8230	5.5	17
40	Volume Transitions, Phase Separation, and Anisotropic Surface Phases in Charged Gels. <i>Macromolecules</i> , 1996 , 29, 8530-8537	5.5	39
39	Statistical physics of polymer gels. <i>Physics Reports</i> , 1996 , 269, 1-131	27.7	198
38	Polymer Gels: Frozen Inhomogeneities and Density Fluctuations. <i>Macromolecules</i> , 1996 , 29, 7960-7975	5.5	125
37	Charge disorder in granular arrays. <i>European Physical Journal D</i> , 1996 , 46, 629-630		2

36	The effect of thermodynamic fluctuations on the formation of superstructures in random heteropolymers. <i>JETP Letters</i> , 1996 , 64, 197-201	1.2	8
35	Recent developments in the theory of polymer gels. <i>Journal of Computer-Aided Materials Design</i> , 1996 , 3, 281-288		2
34	Solid Elasticity and Liquid-Like Behaviour in Randomly Crosslinked Polymer Networks. <i>Europhysics Letters</i> , 1994 , 28, 149-154	1.6	7
33	Single electron tunneling near the Coulomb blockade threshold. <i>Physica B: Condensed Matter</i> , 1994 , 203, 417-422	2.8	7
32	Glassy states with frozen-in currents and paramagnetism of granular high temperature superconductors. <i>Physica B: Condensed Matter</i> , 1994 , 203, 527-531	2.8	7
31	Transport properties of mesoscopic tunnel junctions: nonperturbative analysis. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993 , 183, 115-122	2.3	11
30	New statistical approach to the description of spatial inhomogeneous states in heteropolymer solutions. <i>Journal De Physique II</i> , 1992 , 2, 1973-1993		27
29	Correlation functions and transport properties of granular arrays with ohmic dissipation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991 , 156, 119-126	2.3	7
28	Coulomb blockade and nonperturbative ground-state properties of ultrasmall tunnel junctions. <i>Physical Review Letters</i> , 1991 , 67, 3168-3171	7.4	98
27	The ferromagnetic analogy applied to polymers with a fixed chain length distribution. <i>Polymer Science USSR</i> , 1990 , 32, 1247-1254		1
26	Scaling pattern of swelling of polymer networks. <i>Polymer Science USSR</i> , 1990 , 32, 682-689		1
25	Quantum coherence and phase transitions in granular superconductors with dissipation. I. Ordered arrays. <i>Journal of Low Temperature Physics</i> , 1989 , 75, 361-388	1.3	18
24	Quantum coherence and phase transitions in granular superconductors with dissipation. II. Effect of disorder. <i>Journal of Low Temperature Physics</i> , 1989 , 75, 389-398	1.3	6
23	Quantum fluctuations and quantum dynamics of small Josephson junctions. <i>Journal of Low Temperature Physics</i> , 1988 , 73, 1-32	1.3	52
22	Spin-glass state in a disordered sine-Gordon model. <i>Physica B: Condensed Matter</i> , 1988 , 152, 70-71	2.8	1
21	Quantum fluctuations and the current-phase relation in Josephson junctions and SQUIDs. <i>Physica B: Condensed Matter</i> , 1988 , 152, 162-164	2.8	9
20	Quantum fluctuations and dissipative phase transition in granular superconductors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1987 , 124, 325-329	2.3	15
19	Dynamics of a quantum dissipative system: Duality between coordinate and quasimomentum spaces. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1987 , 120, 306-311	2.3	20

18	Feasibility of studying the uniformity of a sample from phase transition parameters using voltage measurements transverse to the current. <i>Radiophysics and Quantum Electronics</i> , 1987 , 30, 236-240	0.7	
17	Dissipative Phase Transition in Granular Superconductors. <i>Japanese Journal of Applied Physics</i> , 1987 , 26, 1327	1.4	5
16	Macroscopic Quantum Shift of the Flux and Quantum Tunneling. <i>Japanese Journal of Applied Physics</i> , 1987 , 26, 1401	1.4	4
15	Quantum Dynamics of Small Josephson Junctions. <i>Japanese Journal of Applied Physics</i> , 1987 , 26, 1403	1.4	6
14	Ferromagnetic superconductors: Effect of disorder on the coexistence phase in ErRh4B4 and pseudoternary systems. <i>Journal of Low Temperature Physics</i> , 1985 , 59, 487-508	1.3	4
13	Domain wall structure and the properties of the coexistence phase in ferromagnetic superconductors HoMo6S8 and HoMo6Se8. <i>Solid State Communications</i> , 1985 , 53, 243-247	1.6	3
12	Coexistence of superconductivity and magnetism theoretical predictions and experimental results. <i>Advances in Physics</i> , 1985 , 34, 175-261	18.4	271
11	Magnetic superconductors. <i>Uspekhi Fizicheskikh Nauk</i> , 1984 , 27, 927-953		25
10	Magnetic superconductors. <i>Uspekhi Fizicheskikh Nauk</i> , 1984 , 144, 597	0.5	32
9	Inhomogeneous magnetic structure in clean magnetic superconductors. <i>Journal of Low Temperature Physics</i> , 1983 , 52, 137-162	1.3	8
8	Induced ferromagnetism in ErRh4B4. <i>Solid State Communications</i> , 1983 , 46, 133-137	1.6	8
7	Theory of magnetic structure in reentrant magnetic superconductors HoMo6S8 and ErRh4B4. <i>Physical Review B</i> , 1983 , 28, 1370-1388	3.3	32
6	The oscillation dependence of the critical current on the exchange field of ferromagnetic metals (F) in Josephson junction S-F-S. <i>Solid State Communications</i> , 1982 , 44, 539-542	1.6	24
5	Magnetic superconductors of HoMo6S8 type: The effect of magnetic field and supercurrent. <i>Solid State Communications</i> , 1982 , 43, 135-139	1.6	5
4	Domain-like magnetic structure in superconductors of ErRh4B4 and HoMo6S8 type. <i>Solid State Communications</i> , 1982 , 44, 1247-1251	1.6	13
3	Coexistence of ferromagnetism and superconductivity in ErRh4B4 and HoMo6S8: Exchange or electromagnetic mechanism?. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1982 , 89, 93-95	2.3	7
2	Effect of impurities on the properties of superconductor with helical order of localized spins. <i>Solid State Communications</i> , 1981 , 37, 671-675	1.6	4
1	The role of the exchange and magnetic dipole interactions in the superconductors with helical magnetic ordering. <i>Solid State Communications</i> , 1981 , 40, 683-686	1.6	5

