

# L S Brizhik

## 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.

80  
papers

817  
citations

16  
h-index

25  
g-index

86  
ext. papers

889  
ext. citations

2.3  
avg, IF

3.82  
L-index

#	Paper	IF	Citations
80	Spin relevant invariants and the general solution of the Dirac equation for the Coulomb fields. <i>Annals of Physics</i> , <b>2022</b> , 439, 168786	2.5	1
79	Charge and energy transport by Holstein solitons in anharmonic one-dimensional systems. <i>Chaos, Solitons and Fractals</i> , <b>2019</b> , 119, 343-354	9.3	4
78	Modeling Meridians Within the Quantum Field Theory. <i>JAMS Journal of Acupuncture and Meridian Studies</i> , <b>2019</b> , 12, 29-36	1.2	3
77	Impact of structure on the delayed luminescence of d-Glucose-based polymer chains. <i>Journal of Photochemistry and Photobiology B: Biology</i> , <b>2019</b> , 198, 111589	6.7	3
76	Generalized Spin-Orbit Interaction and Its Manifestation in Two-Dimensional Electron Systems. <i>Ukrainian Journal of Physics</i> , <b>2019</b> , 64, 464	0.4	0
75	Long-range donor-acceptor electron transport mediated by helices. <i>Physical Review E</i> , <b>2019</b> , 100, 062205	5.4	5
74	On the theory of the Schrödinger equation with the full set of relativistic corrections. <i>Low Temperature Physics</i> , <b>2018</b> , 44, 573-583	0.7	2
73	Electron Correlations in Molecular Chains <b>2017</b> , 215-232		1
72	Nonlinearity, coherence and complexity: Biophysical aspects related to health and disease. <i>Electromagnetic Biology and Medicine</i> , <b>2017</b> , 36, 315-324	2.2	4
71	General solution of the Dirac equation for quasi-two-dimensional electrons. <i>Annals of Physics</i> , <b>2016</b> , 369, 85-101	2.5	6
70	Influence of electromagnetic field on soliton-mediated charge transport in biological systems. <i>Electromagnetic Biology and Medicine</i> , <b>2015</b> , 34, 123-32	2.2	16
69	Copper ion fluxes through the floating water bridge under strong electric potential. <i>Electromagnetic Biology and Medicine</i> , <b>2015</b> , 34, 167-9	2.2	1
68	Spin eigen-states of Dirac equation for quasi-two-dimensional electrons. <i>Annals of Physics</i> , <b>2015</b> , 361, 423-439	2.5	5
67	Bound States of Electrons in Harmonic and Anharmonic Crystal Lattices. <i>Springer Series in Materials Science</i> , <b>2015</b> , 291-319	0.9	1
66	Michael Kasha: from photochemistry and flowers to spectroscopy and music. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 14316-24	16.4	21
65	Thermal enhancement and stochastic resonance of polaron ratchets. <i>Physical Review E</i> , <b>2014</b> , 89, 062905	5.4	4
64	Donor-acceptor electron transport mediated by solitons. <i>Physical Review E</i> , <b>2014</b> , 90, 052915	2.4	6

63	Stabilizing Role of Lattice Anharmonicity in the Bisoliton Dynamics. <i>Ukrainian Journal of Physics</i> , <b>2013</b> , 58, 562-572	0.4	1
62	Electron pairing and Coulomb repulsion in one-dimensional anharmonic lattices. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	23
61	Electron pairing in one-dimensional anharmonic crystal lattices. <i>International Journal of Quantum Chemistry</i> , <b>2012</b> , 112, 551-565	2.1	13
60	Quartic lattice interactions, soliton-like excitations, and electron pairing in one-dimensional anharmonic crystals. <i>International Journal of Quantum Chemistry</i> , <b>2012</b> , 112, 2591-2598	2.1	9
59	The role of water in the information exchange between the components of an ecosystem. <i>Ecological Modelling</i> , <b>2011</b> , 222, 2869-2877	3	3
58	Ratchet dynamics of large polarons in asymmetric diatomic molecular chains. <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 155105	1.8	8
57	Light as a trigger and a probe of the internal dynamics of living organisms. <i>JAMS Journal of Acupuncture and Meridian Studies</i> , <b>2010</b> , 3, 291-7	1.2	4
56	Delayed luminescence from collagen as arising from soliton and small polaron states. <i>International Journal of Quantum Chemistry</i> , <b>2010</b> , 110, 221-229	2.1	11
55	Ratchet effect of Davydov's solitons in nonlinear low-dimensional nanosystems. <i>International Journal of Quantum Chemistry</i> , <b>2010</b> , 110, 25-37	2.1	6
54	Davydov's solitons in zigzag carbon nanotubes. <i>International Journal of Quantum Chemistry</i> , <b>2010</b> , 110, 11-24	2.1	3
53	The role of electromagnetic potentials in the evolutionary dynamics of ecosystems. <i>Ecological Modelling</i> , <b>2009</b> , 220, 1865-1869	3	24
52	Directed Transport of the Davydov Solitons by Unbiased a.c. Forces. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , <b>2009</b> , 89-102	0.1	
51	Field Driven Current in Nonlinear Low-Dimensional Nanosystems. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , <b>2009</b> , 165-184	0.2	
50	On the dynamics of self-organization in living organisms. <i>Electromagnetic Biology and Medicine</i> , <b>2009</b> , 28, 28-40	2.2	17
49	Effects of periodic electromagnetic field on charge transport in macromolecules. <i>Electromagnetic Biology and Medicine</i> , <b>2009</b> , 28, 15-27	2.2	3
48	Some Properties of Solitons. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , <b>2009</b> , 103-121	0.1	
47	Hydration Effects on Photophysical Properties of Collagen. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , <b>2009</b> , 359-383	0.1	1
46	Ratchet behaviour of polarons in molecular chains. <i>Journal of Physics Condensed Matter</i> , <b>2008</b> , 20, 255242.8		9

45	Nonlinear mechanism for weak photon emission from biosystems. <i>Indian Journal of Experimental Biology</i> , <b>2008</b> , 46, 353-7		3
44	Dynamics of a self-trapped quasiparticle in a one-dimensional molecular lattice with two phonon modes. <i>Physica Status Solidi (B): Basic Research</i> , <b>2007</b> , 244, 545-557	1.3	7
43	Self-trapped electron states in nanotubes. <i>Physica D: Nonlinear Phenomena</i> , <b>2007</b> , 228, 130-139	3.3	7
42	Adiabatic self-trapped states in zigzag nanotubes. <i>Journal of Physics Condensed Matter</i> , <b>2007</b> , 19, 306205.8		3
41	Charge and energy transfer by solitons in low-dimensional nanosystems with helical structure. <i>Chemical Physics</i> , <b>2006</b> , 324, 259-266	2.3	28
40	Electron self-trapping on a nanocircle. <i>Physica D: Nonlinear Phenomena</i> , <b>2006</b> , 218, 36-55	3.3	4
39	Energy Supply and Photon Emission by Solitons in Alpha-Helical Proteins. <i>Electromagnetic Biology and Medicine</i> , <b>2005</b> , 24, 243-253	2.2	
38	Solitons in alpha-helical proteins. <i>Physical Review E</i> , <b>2004</b> , 70, 031914	2.4	54
37	Correlation between large polarons in molecular chains. <i>Macromolecular Symposia</i> , <b>2004</b> , 212, 529-538	0.8	
36	Correlation between large polarons in molecular chains. <i>Macromolecular Symposia</i> , <b>2004</b> , 212, 131-140	0.8	
35	Static solutions of aD-dimensional modified nonlinear Schrödinger equation. <i>Nonlinearity</i> , <b>2003</b> , 16, 1481-1497	1.7	63
34	A cross-correlated experimental setup for probing normal and abnormal vital processes that are endogenous or induced by xenobiotic agents <b>2003</b> , 5143, 250		2
33	Nonlinear Model of the Origin of Endogenous Alternating Electromagnetic Fields and Selfregulation of Metabolic Processes in Biosystems. <i>Electromagnetic Biology and Medicine</i> , <b>2003</b> , 22, 31-39	2.2	20
32	Spontaneous localization of electrons in two-dimensional lattices within the adiabatic approximation. <i>Journal of Mathematical Physics</i> , <b>2003</b> , 44, 3689	1.2	4
31	Nonlinear dependence of the delayed luminescence yield on the intensity of irradiation in the framework of a correlated soliton model. <i>Physical Review E</i> , <b>2003</b> , 67, 021902	2.4	14
30	Spontaneous localization of electrons in lattices with nonlocal interactions. <i>Physical Review B</i> , <b>2003</b> , 68,	3.3	9
29	Electron self-trapping in a discrete two-dimensional lattice. <i>Physica D: Nonlinear Phenomena</i> , <b>2001</b> , 159, 71-90	3.3	45
28	Delayed luminescence of biological systems arising from correlated many-soliton states. <i>Physical Review E</i> , <b>2001</b> , 64, 031902	2.4	47

27	Spontaneously localized electron states in a discrete anisotropic two-dimensional lattice. <i>Physica D: Nonlinear Phenomena</i> , <b>2000</b> , 146, 275-288	3.3	7
26	Polaron dynamics and Peierls-Nabarro barrier in a discrete molecular chain. <i>Synthetic Metals</i> , <b>2000</b> , 109, 113-116	3.6	5
25	Ground state diagram of a 1D electron-phonon system. <i>Synthetic Metals</i> , <b>2000</b> , 109, 117-121	3.6	7
24	The soliton mechanism of the delayed luminescence of biological systems. <i>Europhysics Letters</i> , <b>2000</b> , 52, 238-244	1.6	19
23	Soliton dynamics and Peierls-Nabarro barrier in a discrete molecular chain. <i>Physical Review B</i> , <b>2000</b> , 61, 1129-1141	3.3	43
22	Role of Bisolitons and their Correlations in Charge Transfer Processes. <i>Journal of Biological Physics</i> , <b>1999</b> , 24, 233-44	1.6	6
21	Electromagnetic radiation influence on nonlinear charge and energy transport in biosystems. <i>Journal of Biological Physics</i> , <b>1999</b> , 24, 223-32	1.6	17
20	Spontaneously Localized Electron States in a Chain with Electron-Phonon Coupling: Variational Approach. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>1999</b> , 12, 239-241		5
19	Influence of electromagnetic radiation on molecular solitons. <i>Journal of Biological Physics</i> , <b>1998</b> , 24, 19-406	1.6	17
18	On the Pair Correlations Between Electrosolitons <b>1998</b> , 173-184		
17	Electron autolocalized states in molecular chains. <i>Physica D: Nonlinear Phenomena</i> , <b>1995</b> , 81, 295-304	3.3	24
16	The ground state of an electron or exciton in the Holstein model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1995</b> , 200, 213-218	2.3	16
15	The ground state of an extra electron interacting with acoustic phonons in a molecular chain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1995</b> , 205, 90-96	2.3	15
14	Bound State of Electrons in a One-Dimensional Chain. <i>Physica Status Solidi (B): Basic Research</i> , <b>1994</b> , 182, 89-96	1.3	3
13	On the dependence of the critical temperature on pressure in the bisoliton model of high temperature superconductors. <i>High Pressure Research</i> , <b>1994</b> , 11, 375-383	1.6	2
12	Soliton generation in molecular chains. <i>Physical Review B</i> , <b>1993</b> , 48, 3142-3144	3.3	10
11	Bisolitons in a layered crystal. <i>Chaos, Solitons and Fractals</i> , <b>1993</b> , 3, 61-65	9.3	1
10	Bisoliton mechanism of electron transport in biological systems. <i>Journal of Biological Physics</i> , <b>1993</b> , 19, 123-131	1.6	5

9	Soliton states in a chain with two atoms per elementary cell. <i>Physica Status Solidi (B): Basic Research</i> , <b>1991</b> , 164, 525-536	1.3	3
8	Dynamics of a soliton in a constant magnetic field. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , <b>1990</b> , 83, 578-582	0.7	2
7	The Magnetic Field Influence on a Superconducting Bisoliton Condensate. <i>Physica Status Solidi (B): Basic Research</i> , <b>1990</b> , 157, 417-424	1.3	4
6	Bisoliton in Constant Magnetic Field. <i>Physica Status Solidi (B): Basic Research</i> , <b>1990</b> , 157, 649-655	1.3	2
5	High-Temperature Superconductivity in Light of Bisoliton Model <b>1990</b> , 109-118		
4	Soliton Generation in Semi-Infinite Molecular Chains. <i>Physica Status Solidi (B): Basic Research</i> , <b>1988</b> , 146, 605-612	1.3	14
3	Quantum theory of strong localization of a quasiparticle in a linear molecular system. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , <b>1988</b> , 77, 1129-1136	0.7	1
2	Soliton Mechanism of Superconductivity in Organic Quasi-One-Dimensional Crystals. <i>Physica Status Solidi (B): Basic Research</i> , <b>1987</b> , 143, 689-698	1.3	16
1	Soliton excitations in one-dimensional molecular systems. <i>Physica Status Solidi (B): Basic Research</i> , <b>1983</b> , 115, 615-630	1.3	43