

# Zoran Ivic

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9111412/publications.pdf>

Version: 2024-02-01

74  
papers

621  
citations

759233

12  
h-index

642732

23  
g-index

74  
all docs

74  
docs citations

74  
times ranked

182  
citing authors

#	ARTICLE	IF	CITATIONS
1	Qubit-photon bound states in superconducting metamaterials. Physical Review B, 2022, 105, .	3.2	0
2	Dispersive properties of self-induced transparency in two-level media. Chaos, Solitons and Fractals, 2021, 143, 110611.	5.1	1
3	Self induced transparency pulses in transmon base quantum metamaterials. , 2021, , .		0
4	Self-induced transparency in a flux-qubit chain. Chaos, Solitons and Fractals: X, 2019, 1, 100003.	2.1	6
5	Self-induced transparency of the optical phonons. Chaos, Solitons and Fractals, 2017, 105, 14-20.	5.1	2
6	Quantum coherence in a qubit chain induced by electromagnetic pulses. , 2016, , .		0
7	On the vibron nature in the system of two parallel macromolecular chains: The influence of interchain coupling. Physica B: Condensed Matter, 2016, 490, 9-15.	2.7	5
8	Large acoustic polaron states and bifurcation in three coupled parallel molecular chains. Chaos, Solitons and Fractals, 2016, 91, 63-68.	5.1	1
9	Qubit lattice coherence induced by electromagnetic pulses in superconducting metamaterials. Scientific Reports, 2016, 6, 29374.	3.3	17
10	The influence of the interchain coupling on large acoustic polarons in coupled molecular chains: Three coplanar parallel molecular chains. Chaos, Solitons and Fractals, 2015, 73, 71-79.	5.1	7
11	Vibron transport in macromolecular chains. , 2014, , .		1
12	Interchain coupling effects on large acoustic polaron in two parallel molecular chains. Chemical Physics, 2013, 426, 9-15.	1.9	10
13	Stationary polarons in discrete molecular chains. International Journal of Quantum Chemistry, 2013, 113, 1522-1533.	2.0	0
14	Publisher's Note: Frequency dependence of the subharmonic Shapiro steps [Phys. Rev. E83, 056604 (2011)]. Physical Review E, 2013, 87, .	2.1	0
15	The vibron dressing in $\hat{\pm}$ -helical macromolecular chains. Chinese Physics B, 2013, 22, 060501.	1.4	11
16	Size effect of the subharmonic Shapiro steps on the interference phenomena in the Frenkel-Kontorova model with realistic substrate potentials. Journal of Applied Physics, 2013, 114, 174504.	2.5	9
17	Effects of noise on interference phenomena in the presence of subharmonic Shapiro steps. Physical Review E, 2012, 86, 046209.	2.1	9
18	Vibron Self-trapped States in Biological Macromolecules: Comparison of Different Theoretical Approaches. Journal of Physics: Conference Series, 2012, 393, 012033.	0.4	4

#	ARTICLE	IF	CITATIONS
19	Large polarons in dry DNA: temperature and anharmonic effects. EPJ Web of Conferences, 2012, 29, 00037.	0.3	0
20	Stationary soliton solutions for large adiabatic Holstein polaron in magnetic field in anisotropic solids. European Physical Journal B, 2012, 85, 1.	1.5	0
21	Charge Transfer in DNA: The Role of Large Polarons. Journal of Physics: Conference Series, 2011, 329, 012015.	0.4	6
22	Frequency dependence of the subharmonic Shapiro steps. Physical Review E, 2011, 83, 056604.	2.1	9
23	Nature of the vibron self-trapped states in hydrogen-bonded macromolecular chains. Physical Review E, 2011, 84, 011920.	2.1	11
24	Adiabatic large polarons in anisotropic molecular crystals. Journal of Research in Physics, 2011, 35, 15-27.	0.2	0
25	Charge transport in the $\alpha$ -helix proteins. Journal of Physics: Conference Series, 2010, 248, 012051.	0.4	1
26	On the possible role of small polarons in the charge and energy transport in the $\alpha$ -helix proteins. Physics of Particles and Nuclei, 2010, 41, 1017-1019.	0.7	1
27	Properties of the moving Holstein large polaron in one-dimensional molecular crystals. Journal of Physics Condensed Matter, 2009, 21, 275404.	1.8	4
28	Inapplicability of Small-Polaron Model for the Explanation of Infrared Absorption Spectrum in Acetanilide. Electromagnetic Biology and Medicine, 2009, 28, 182-187.	1.4	0
29	The influence of polaron-phonon interaction on absorption spectra in molecular crystals. Chemical Physics Letters, 2009, 480, 75-81.	2.6	6
30	Boundary between coherent and noncoherent small polaron motion: Influence of the phonon hardening. Physica B: Condensed Matter, 2009, 404, 270-274.	2.7	8
31	Infrared absorption spectra of molecular crystals: Possible evidence for small-polaron formation?. Chemical Physics Letters, 2008, 462, 213-216.	2.6	13
32	Influence of quantum lattice fluctuations on the stability of large polarons in anisotropic electron-phonon systems. Physical Review B, 2007, 76, .	3.2	6
33	Biphonons in the Fermi-Pasta-Ulam model. Physica D: Nonlinear Phenomena, 2006, 216, 200-206.	2.8	24
34	Modification of phonon spectra due to vibron self-trapping in molecular crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 358, 457-462.	2.1	3
35	Comment on "Improvement of the Davydov theory of bioenergy transport in protein molecular systems": Physical Review E, 2006, 73, 013901.	2.1	3
36	Influence of the electron-phonon interaction on phonon heat conduction in a molecular nanowire. Science of Sintering, 2006, 38, 125-129.	1.4	0

#	ARTICLE	IF	CITATIONS
37	Phonon hardening due to the small-polaron effect. <i>Physica B: Condensed Matter</i> , 2005, 355, 417-426.	2.7	10
38	Finite temperature variational analysis of the tunneling and localization in spin-phonon model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 339, 393-402.	2.1	4
39	Small-polaron resistivity of the narrow band molecular chain: The influence of phonon hardening. <i>Physica B: Condensed Matter</i> , 2005, 362, 187-192.	2.7	5
40	Dimensional mismatch of the electron-phonon system and large polaron stability. <i>Physical Review B</i> , 2005, 72, .	3.2	0
41	Polaron induced modification of the speed of sound in quasi-one-dimensional molecular crystals. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2003, 316, 126-134.	2.1	4
42	Finite-temperature large acoustic polaron dynamics in quasi-one-dimensional molecular crystals. <i>Physical Review E</i> , 2002, 65, 021911.	2.1	14
43	Radiative decay of the one-dimensional large acoustic polaron. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 306, 144-152.	2.1	8
44	Solitons in the system of interacting Frenkel excitons. <i>Journal of Physics Condensed Matter</i> , 2000, 12, 871-884.	1.8	0
45	Decay and slowing down of the multiquanta Davydov-like solitons in molecular chains. <i>Physical Review E</i> , 2000, 61, 6963-6970.	2.1	8
46	Kinetic properties of multiquanta Davydov-like solitons in molecular chains. <i>Physical Review E</i> , 1999, 60, 821-825.	2.1	22
47	Damping and modification of the multiquanta Davydov-like solitons in molecular chains. <i>Bioelectrochemistry</i> , 1999, 48, 297-300.	1.0	4
48	The role of solitons in charge and energy transfer in 1D molecular chains. <i>Physica D: Nonlinear Phenomena</i> , 1998, 113, 218-227.	2.8	15
49	On the neutron scattering on large polarons in quasi-one-dimensional molecular crystals. <i>Europhysics Letters</i> , 1998, 41, 285-290.	2.0	2
50	Soliton-induced modification of the speed of sound in quasi-one-dimensional molecular crystals. <i>Journal of Physics Condensed Matter</i> , 1998, 10, 1487-1494.	1.8	12
51	Effects of quantum lattice fluctuations on multiquanta Davydov-like solitons in a molecular chain. <i>Journal of Physics Condensed Matter</i> , 1997, 9, 413-426.	1.8	29
52	On the relevance of self-trapping as the mechanism for charge and energy transfer in biological systems. <i>Bioelectrochemistry</i> , 1996, 41, 43-46.	1.0	2
53	On the possibility of the creation of bound states of two amide-I quanta in $\alpha$ -helix. <i>Bioelectrochemistry</i> , 1996, 41, 93-96.	1.0	1
54	Effects of quantum lattice fluctuations on vibron pairing in two-site systems. <i>Physical Review B</i> , 1996, 54, 2992-2995.	3.2	1

#	ARTICLE	IF	CITATIONS
55	Finite-temperature two-state small-polaron dynamics: averaged Hamiltonian approach. <i>Journal of Physics Condensed Matter</i> , 1996, 8, 157-167.	1.8	3
56	Radiation emission by a polaron in a molecular chain. <i>Journal of Physics Condensed Matter</i> , 1995, 7, 7843-7850.	1.8	6
57	Diffusion of Randomly Driven Solitons in Molecular Chains. <i>Europhysics Letters</i> , 1995, 30, 267-272.	2.0	7
58	Soliton-phonon interaction in anharmonic quasi-one-dimensional ferromagnetic crystals: Soliton-induced modification of the speed of sound. <i>Physical Review B</i> , 1994, 50, 16418-16423.	3.2	5
59	Dynamics of the spin-boson model in the adiabatic approximation. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 729-740.	1.8	5
60	Interimpurity transfer in condensed media: Breakdown of coherent tunneling and conditions for the creation of localized states. <i>Physical Review B</i> , 1994, 50, 13315-13326.	3.2	5
61	Localization versus delocalization in simple two-state models: variational estimates. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 172, 461-466.	2.1	13
62	Polaron-like features of the domain wall in a classical Ising chain with transverse field. <i>Journal of Physics Condensed Matter</i> , 1993, 5, 6263-6276.	1.8	0
63	Self-trapping in quasi-one-dimensional electron- and exciton-phonon systems. <i>Physical Review B</i> , 1993, 48, 3721-3733.	3.2	45
64	Relaxation of kinks in the Ising chain with a transverse field interacting with a three-dimensional phonon field. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 231-240.	1.8	2
65	Influence of phonon fluctuations on soliton dynamics in the easy-axis Heisenberg model. <i>Physica Scripta</i> , 1991, 43, 528-533.	2.5	6
66	Polarons, solitons and self-trapping in exciton dynamics. <i>Journal of Luminescence</i> , 1990, 45, 289-291.	3.1	3
67	Unification of polaron and soliton theories of exciton transport. <i>Physical Review B</i> , 1989, 40, 9876-9887.	3.2	139
68	Soliton excitations of a small-polaron band. <i>Physical Review Letters</i> , 1989, 63, 426-429.	7.8	45
69	Soliton Excitations of a Small-Polaron Band. <i>Physical Review Letters</i> , 1989, 63, 2002-2002.	7.8	0
70	The influence of supersonic Davydov solitons to the Mössbauer effect in one-dimensional molecular crystals at $T \approx 0$ . <i>Physica Scripta</i> , 1988, 37, 564-568.	2.5	6
71	The role of supersonic davydov solitons for energy exchange between two joined molecular chains. <i>Physica Status Solidi (B): Basic Research</i> , 1987, 140, 467-476.	1.5	0
72	The Kinetic Coefficient of Electron Transfer Along a One-Dimensional Molecular Chain Achieved by the Mechanism of Supersonic Davydov Solitons. <i>Physica Scripta</i> , 1986, 34, 283-288.	2.5	10

#	ARTICLE	IF	CITATIONS
73	The Contribution of Davydov Solitons to the Value of the Kinetic Coefficient of Electron Transfer along a Oneâ€Dimensional Molecular Chain. Physica Status Solidi (B): Basic Research, 1985, 129, 221-233.	1.5	2
74	New Approach to the Theory of Hybrid Excitations in Magnetic Dielectrics. Physica Status Solidi (B): Basic Research, 1984, 123, 135-141.	1.5	0