Bela Joos

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1713653/publications.pdf

Version: 2024-02-01

89 papers	2,205 citations	279487 23 h-index	243296 44 g-index
100 all docs	100 docs citations	100 times ranked	1389 citing authors

#	Article	IF	Citations
1	The Donnan-dominated resting state of skeletal muscle fibers contributes to resilience and longevity in dystrophic fibers. Journal of General Physiology, 2022, 154, .	0.9	0
2	Excluded volume reduced mechanical stability for an intrinsically curved biopolymer. Chinese Journal of Physics, 2020, 64, 219-226.	2.0	2
3	Cooling reverses pathological bifurcations to spontaneous firing caused by mild traumatic injury. Chaos, 2018, 28, 106328.	1.0	1
4	A model for studying the energetics of sustained high frequency firing. PLoS ONE, 2018, 13, e0196508.	1.1	2
5	Deformation and rupture of vesicles confined in narrow channels. Canadian Journal of Physics, 2017, 95, 916-922.	0.4	3
6	Calculating the Consequences of Left-Shifted Nav Channel Activity in Sick Excitable Cells. Handbook of Experimental Pharmacology, 2017, 246, 401-422.	0.9	7
7	Stability of the helical configuration of an intrinsically straight semiflexible biopolymer inside a cylindrical cell. AIP Advances, 2017, 7, 125003.	0.6	2
8	Nav Channels in Damaged Membranes. Current Topics in Membranes, 2016, 78, 561-597.	0.5	10
9	Effect of a force-free end on the mechanical property of a biopolymer â€" A path integral approach. Chinese Physics B, 2016, 25, 088701.	0.7	1
10	Relaxation of a simulated lipid bilayer vesicle compressed by an atomic force microscope. Physical Review E, 2016, 94, 052408.	0.8	5
11	The Hv1 proton channel responds to mechanical stimuli. Journal of General Physiology, 2016, 148, 405-418.	0.9	25
12	Mechanosensitive Gating of Kv Channels. PLoS ONE, 2015, 10, e0118335.	1.1	18
13	Stimulation-induced ectopicity and propagation windows in model damaged axons. Journal of Computational Neuroscience, 2014, 37, 523-531.	0.6	12
14	Membrane order parameters for interdigitated lipid bilayers measured via polarized total-internal-reflection fluorescence microscopy. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2861-2869.	1.4	9
15	Stimulation-induced ectopicity and propagation windows in model damaged axons. BMC Neuroscience, 2014, 15, .	0.8	0
16	Action potential initiation in damaged axon initial segment. BMC Neuroscience, 2014, 15, .	0.8	3
17	Spontaneous Excitation Patterns Computed for Axons with Injury-like Impairments of Sodium Channels and Na/K Pumps. PLoS Computational Biology, 2012, 8, e1002664.	1.5	47
18	Extrusion of small vesicles through nanochannels: A model for experiments and molecular dynamics simulations. Physical Review E, 2012, 85, 051910.	0.8	11

#	Article	IF	Citations
19	Coupled left-shift of Nav channels: modeling the Na+-loading and dysfunctional excitability of damaged axons. Journal of Computational Neuroscience, 2012, 33, 301-319.	0.6	64
20	Perturbed voltage-gated channel activity in perturbed bilayers: Implications for ectopic arrhythmias arising from damaged membrane. Progress in Biophysics and Molecular Biology, 2012, 110, 245-256.	1.4	16
21	Left-Shifted Nav Channels in Injured Bilayer: Primary Targets for Neuroprotective Nav Antagonists?. Frontiers in Pharmacology, 2012, 3, 19.	1.6	26
22	Trauma-Induced Nav Leak and Dysexcitability in Axonal Membranes: Simulating the Consequences of Mechanically-Induced Left-Shift of Transient Nav1.6 Current. Biophysical Journal, 2011, 100, 424a.	0.2	0
23	Entropic elasticity of dilated and contorted idealized circular chains. Physical Review E, 2010, 81, 061803.	0.8	0
24	Disordered, stretched, and semiflexible biopolymers in two dimensions. Physical Review E, 2009, 80, 061911.	0.8	9
25	Mechanosensitive Closed-Closed Transitions in Large Membrane Proteins: Osmoprotection and Tension Damping. Biophysical Journal, 2009, 97, 2761-2770.	0.2	19
26	Microstructure and dynamics of a polymer glass subjected to instantaneous shear strain. Journal of Physics Condensed Matter, 2008, 20, 244130.	0.7	3
27	Sequence-dependent effects on the properties of semiflexible biopolymers. Physical Review E, 2008, 77, 061906.	0.8	5
28	ELASTICITY AND STABILITY OF A HELICAL FILAMENT WITH SPONTANEOUS CURVATURES AND ISOTROPIC BENDING RIGIDITY. Modern Physics Letters B, 2007, 21, 1895-1913.	1.0	14
29	Stretching effects on the permeability of water molecules across a lipid bilayer. Journal of Chemical Physics, 2007, 127, 105104.	1.2	13
30	Pore Formation in a Lipid Bilayer under a Tension Ramp: Modeling the Distribution of Rupture Tensions. Biophysical Journal, 2007, 92, 4344-4355.	0.2	26
31	Shear-Induced Overaging in a Polymer Glass. Physical Review Letters, 2006, 96, 025501.	2.9	29
32	Elasticity and stability of a helical filament. Physical Review E, 2005, 71, 052801.	0.8	39
33	Rigidity transition in polymer melts with van der Waals interaction. Physical Review E, 2004, 70, 041501.	0.8	14
34	Model for gelation with explicit solvent effects: Structure and dynamics. Physical Review E, 2003, 67, 011401.	0.8	8
35	Lattice model for the kinetics of rupture of fluid bilayer membranes. Physical Review E, 2003, 67, 051908.	0.8	17
36	Elasticity of randomly diluted central force networks under tension. Physical Review E, 2003, 68, 055101.	0.8	2

#	Article	IF	Citations
37	Fluctuation formulas for the elastic constants of an arbitrary system. Physical Review B, 2002, 66, .	1.1	19
38	Entropic Rigidity. , 2002, , 315-328.		0
39	Viscoelasticity near the gel point: A molecular dynamics study. Physical Review E, 2001, 64, 031505.	0.8	32
40	The Peierls-Nabarro model and the mobility of the dislocation line. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 1329-1340.	0.8	20
41	Realizing the canonical ensemble in highly entropic inhomogeneous materials. Physical Review E, 2000, 61, 2410-2417.	0.8	1
42	Rigorous solution for the elasticity of diluted Gaussian spring networks. Physical Review E, 2000, 62, 7490-7493.	0.8	4
43	Entropic rigidity of randomly diluted two- and three-dimensional networks. Physical Review E, 1999, 60, 3129-3135.	0.8	31
44	Convergence issues in molecular dynamics simulations of highly entropic materials. Modelling and Simulation in Materials Science and Engineering, 1999, 7, 383-395.	0.8	4
45	Entropic Elasticity of Diluted Central Force Networks. Physical Review Letters, 1998, 80, 4907-4910.	2.9	46
46	Mechanisms of membrane rupture: From cracks to pores. Physical Review B, 1997, 56, 2997-3009.	1.1	17
47	Dislocation kink migration energies and the Frenkel-Kontorowa model. Physical Review B, 1997, 55, 11161-11166.	1.1	17
48	The Peierls Stress of Dislocations: An Analytic Formula. Physical Review Letters, 1997, 78, 266-269.	2.9	268
49	Chapter 55 The Role of Dislocations in Melting. Dislocations in Solids, 1996, 10, 505-594.	1.6	1
50	Stability criteria for homogeneously stressed materials and the calculation of elastic constants. Physical Review B, 1996, 54, 3841-3850.	1.1	90
51	Elastic properties of randomly cross-linked polymers. Physical Review E, 1996, 54, 5370-5376.	0.8	23
52	The role of dislocations in structural transformations. AIP Conference Proceedings, 1995, , .	0.3	0
53	Test of the Peierls-Nabarro model for dislocations in silicon. Physical Review B, 1995, 52, 13223-13228.	1.1	58
54	Vacancy annealing kinetics in finite monolayer patches. Surface Science, 1995, 323, 311-322.	0.8	6

#	Article	IF	Citations
55	Dislocation-mediated healing of ideal and adsorbed monolayers with vacancy damage. Physical Review B, 1994, 50, 8763-8772.	1.1	7
56	Peierls-Nabarro model of dislocations in silicon with generalized stacking-fault restoring forces. Physical Review B, 1994, 50, 5890-5898.	1.1	234
57	Influence of the interatomic potential on the structure of dislocations in a monolayer. Surface Science, 1994, 302, 385-394.	0.8	9
58	Self-repair of monolayers with vacancy damage. Physical Review Letters, 1993, 70, 2754-2757.	2.9	9
59	Distribution of terrace widths on a vicinal surface within the one-dimensional free-fermion model. Physical Review B, 1991, 43, 8153-8162.	1.1	99
60	Dislocation core studies in empirical silicon models. Physical Review B, 1991, 43, 5143-5146.	1.1	72
61	Molecular Dynamics Studies of Defects in Si. Materials Research Society Symposia Proceedings, 1990, 209, 125.	0.1	6
62	Phason motion of a two-dimensional domain wall network: effective mass, interactions and effect of anharmonicity. Journal of Physics Condensed Matter, 1990, 2, 4099-4110.	0.7	1
63	Phase diagram for the domain-wall lattice of krypton on graphite. Physical Review B, 1990, 41, 4764-4767.	1.1	2
64	The dynamics of a honeycomb array of domain walls as a network of interconnected strings. Canadian Journal of Physics, 1990, 68, 587-598.	0.4	2
65	Effects of temperature on dislocation properties in Xe monolayers. Physical Review B, 1989, 39, 7917-7921.	1.1	7
66	Renormalized model for the dynamics of the krypton-on-graphite domain-wall lattice. Physical Review B, 1989, 40, 10564-10576.	1.1	11
67	Molecular Dynamics studies of Dislocations in SI. Materials Research Society Symposia Proceedings, 1989, 163, 941.	0.1	4
68	Low-temperature behavior of krypton monolayers on graphite. Physical Review B, 1988, 38, 2124-2139.	1.1	18
69	Dislocations in two dimensions II. Modulated systems. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1986, 54, 165-183.	0.8	5
70	Dislocations in layered systems. Materials Science and Engineering, 1986, 81, 531-542.	0.1	0
71	Domain-wall modes for krypton monolayers on graphite. Physical Review B, 1986, 34, 7334-7341.	1.1	14
72	Dynamics of rare-gas floating monolayers in the self-consistent phonon theory. Physical Review B, 1986, 34, 2815-2822.	1.1	26

#	Article	IF	Citations
73	Dislocations in two dimensions I. Floating systems. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1986, 54, 145-163.	0.8	15
74	Dislocation dipoles in rare-gas monolayers. Physical Review B, 1986, 33, 8632-8642.	1.1	31
75	A distribution function for the completion time of a phase change. Journal of Physics C: Solid State Physics, 1985, 18, 6311-6321.	1.5	1
76	Dislocation Energies in Rare-Gas Monolayers on Graphite. Physical Review Letters, 1985, 55, 1997-2000.	2.9	45
77	Theory of the onset of charge-density-wave conduction. Physical Review B, 1984, 29, 1094-1096.	1.1	33
78	Anharmonicity in rare-gas monolayers. Physical Review B, 1984, 29, 6999-7002.	1.1	23
79	Aubry transition in a finite modulated chain. Physical Review B, 1984, 29, 6335-6340.	1.1	34
80	Commensurate and incommensurate ground states in a one-dimensional model. Physical Review B, 1983, 27, 467-473.	1.1	11
81	Ground-state properties of xenon on graphite. Physical Review B, 1983, 28, 7219-7224.	1.1	40
82	Krypton on graphite: Microstructure at zero temperature. Physical Review B, 1983, 27, 7669-7675.	1.1	80
83	Resonant impurity states in semiconductors in a strong magnetic field. Physical Review B, 1982, 25, 1101-1108.	1.1	5
84	Properties of solitons in the Frenkel-Kontorova model. Solid State Communications, 1982, 42, 709-713.	0.9	31
85	Donor complex with tunneling hydrogen in pure germanium. Physical Review B, 1980, 22, 832-840.	1.1	67
86	Acceptor complexes in germanium: Systems with tunneling hydrogen. Physical Review B, 1980, 21, 4729-4739.	1.1	111
87	Resonance states in scattering: some variational methods revisited. Journal of Physics A, 1979, 12, 893-903.	1.6	0
88	Coulombic resonance states in zero-gap semiconductors. Physical Review B, 1978, 18, 5693-5704.	1.1	13
89	Violation of selection rules for phonon-induced intervalley transitions in silicon. Journal of Physics C: Solid State Physics, 1978, 11, 303-313.	1.5	11