

Ladislaus Banyai

List of Publications by Year in descending order

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papers

2,169
citations

304368

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46
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68
all docs

68
docs citations

68
times ranked

915
citing authors

#	ARTICLE	IF	CITATIONS
1	Room-Temperature Optical Nonlinearities in GaAs. Physical Review Letters, 1986, 57, 2446-2449.	2.9	247
2	Excitons and biexcitons in semiconductor quantum wires. Physical Review B, 1987, 36, 6099-6104.	1.1	234
3	Exciton-LO-Phonon Quantum Kinetics: Evidence of Memory Effects in Bulk GaAs. Physical Review Letters, 1995, 75, 2188-2191.	2.9	208
4	Third-order optical nonlinearities in semiconductor microstructures. Physical Review B, 1988, 38, 8142-8153.	1.1	193
5	Ultrafast Quantum Kinetics of Time-Dependent RPA-Screened Coulomb Scattering. Physical Review Letters, 1998, 81, 882-885.	2.9	118
6	Optical nonlinearities of glasses doped with semiconductor microcrystallites. Optics Letters, 1987, 12, 413.	1.7	116
7	Absorption Blue Shift in Laser-Excited Semiconductor Microspheres. Physical Review Letters, 1986, 57, 2722-2724.	2.9	93
8	Photon Echoes from Semiconductor Band-to-Band Continuum Transitions in the Regime of Coulomb Quantum Kinetics. Physical Review Letters, 1999, 83, 3313-3316.	2.9	87
9	Ultrafast Electron Redistribution through Coulomb Scattering in Undoped GaAs: Experiment and Theory. Physical Review Letters, 1996, 77, 5429-5432.	2.9	81
10	Coulomb quantum kinetics and optical dephasing on the femtosecond time scale. Physical Review B, 1994, 50, 1541-1550.	1.1	67
11	Asymptotic biexciton binding energy in quantum dots. Physical Review B, 1989, 39, 8022-8024.	1.1	62
12	Three types of electronic optical bistabilities in CdS. Semiconductor Science and Technology, 1986, 1, 366-375.	1.0	53
13	Two-time electron-LO-phonon quantum kinetics and the generalized Kadanoff-Baym approximation. Physical Review B, 1999, 60, 14234-14241.	1.1	44
14	Subthreshold Carrier-LO Phonon Dynamics in Semiconductors with Intermediate Polaron Coupling: A Purely Quantum Kinetic Relaxation Channel. Physical Review Letters, 2001, 86, 4684-4687.	2.9	42
15	Two-photon absorption and third-order nonlinearities in GaAs quantum dots. Optics Letters, 1988, 13, 212.	1.7	37
16	Condensation kinetics for bosonic excitons interacting with a thermal phonon bath. Physical Review B, 2000, 61, 8823-8834.	1.1	34
17	Theory of THz emission from optically excited semiconductors in crossed electric and magnetic fields. Physical Review B, 2000, 62, 5003-5009.	1.1	34
18	Evaluation of the Hartree-Fock Theory of the Excitonic Optical Stark Effect. Physica Status Solidi (B): Basic Research, 1988, 150, 393-399.	0.7	32

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19	Theory of the Hall Effect in Disordered Systems: Impurity-Band Conduction. <i>Physical Review</i> , 1966, 143, 652-656.	2.7	28
20	Improved spectral functions for quantum kinetics. <i>Solid State Communications</i> , 1996, 100, 303-306.	0.9	27
21	Screened Coulomb quantum kinetics for resonant femtosecond spectroscopy in semiconductors. <i>Physical Review B</i> , 1999, 59, 2760-2767.	1.1	27
22	Bose-Einstein Condensation Quantum Kinetics for a Gas of Interacting Excitons. <i>Physical Review Letters</i> , 2001, 86, 3839-3842.	2.9	23
23	On the Kinetic Theory of Magneto-Optical Phenomena by Green Function Method. <i>Physica Status Solidi (B): Basic Research</i> , 1963, 3, 2299-2304.	0.7	21
24	Measurements of Ultrafast Optical Nonlinearities in Semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 1988, 150, 357-363.	0.7	19
25	Nonlinear optical properties of semiconductor quantum dots. <i>Journal of Crystal Growth</i> , 1992, 117, 598-602.	0.7	19
26	Coulomb quantum kinetics of degenerate resonant femtosecond four-wave mixing. <i>Europhysics Letters</i> , 1997, 40, 323-328.	0.7	19
27	Coulomb screening in the two-time Keldysh-Green-function formalism. <i>Physical Review B</i> , 2000, 62, 7116-7120.	1.1	19
28	Size dependence of exciton-exciton scattering in semiconductor quantum wires. <i>Physical Review B</i> , 1998, 57, 12364-12368.	1.1	17
29	Master Equation Approach to the Hopping Transport Theory. <i>Fortschritte Der Physik</i> , 1979, 27, 435-462.	1.5	16
30	Third-order nonlinear susceptibility of large semiconductor microcrystallites. <i>Physical Review B</i> , 1993, 47, 4498-4507.	1.1	16
31	Coherent interband effects in quantum kinetics. <i>Physica Status Solidi (B): Basic Research</i> , 1995, 188, 387-394.	0.7	16
32	Real-Time Bose-Einstein Condensation in a Finite Volume with a Discrete Spectrum. <i>Physical Review Letters</i> , 2002, 88, 210404.	2.9	14
33	Exciton-dephasing kinetics after coherent pulse excitation. <i>Physical Review B</i> , 1999, 60, 16506-16512.	1.1	10
34	The Pulsed Nonresonant Optical Stark Effect and the Urbach Tail in Semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 1990, 159, 309-315.	0.7	9
35	The \hat{t}^4 Vertex in Chiral Dynamics. <i>Physical Review</i> , 1969, 184, 1903-1905.	2.7	7
36	Semi-classical and quantum-mechanical theory of hopping conduction. <i>Physica Status Solidi (B): Basic Research</i> , 1977, 79, 365-377.	0.7	7

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37	Excitation induced dephasing in four-wave mixing and Coulomb quantum kinetics. <i>Physical Review B</i> , 1998, 58, R13341-R13342.	1.1	7
38	On the connection between the macroscopical and microscopical evolution in an exactly soluble hopping model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1980, 102, 357-369.	1.2	6
39	One-Particle-Exchange Model for Bootstrap. <i>Physical Review</i> , 1966, 146, 1035-1041.	2.7	5
40	Time Reversal and Many-Body Non-equilibrium Green Functions. <i>Annals of Physics</i> , 1994, 233, 165-181.	1.0	5
41	Exciton and biexciton correlations for weakly confined semiconductor quantum wires. <i>Solid State Communications</i> , 1999, 111, 741-745.	0.9	5
42	Macroscopic behaviour of a charged Boltzmann gas. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1981, 107, 166-178.	1.2	4
43	Irreducible tensors for the group SU_3 . <i>Communications in Mathematical Physics</i> , 1966, 2, 121-132.	1.0	3
44	Null-Plane Field Algebra. <i>Physical Review D</i> , 1973, 8, 417-423.	1.6	3
45	On the connection between the macroscopical and microscopical evolution in an exactly soluble hopping model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1980, 103, 119-139.	1.2	3
46	Kinetics of the Dephasing and the Condensation of Excitons. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 221, 221-225.	0.7	3
47	The macroscopic electrodynamic behaviour of a soluble hopping model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1982, 115, 169-184.	1.2	2
48	Virtual carrier-LO phonon interaction in the intermediate coupling region: the quantum dynamical formation of polarons. <i>Physica B: Condensed Matter</i> , 2002, 314, 76-80.	1.3	2
49	Dissipation and irreversibility in a solvable classical open system. <i>European Physical Journal B</i> , 2019, 92, 1.	0.6	2
50	A Compendium of Solid State Theory. , 2020, , .		2
51	Mean-field BCS theory of the Meissner effect in bulk revisited. <i>European Physical Journal B</i> , 2021, 94, 1.	0.6	2
52	On the Change of Energy Gap by Phonon Interaction. <i>Physica Status Solidi (B): Basic Research</i> , 1965, 10, K15.	0.7	1
53	One-particle-exchange model for low-energy scattering I. The one-channel problem. <i>Annals of Physics</i> , 1968, 46, 435-452.	1.0	1
54	Effective Lagrangians, Field Algebra, and Vector-Meson Dominance with Unstable Particles. <i>Physical Review D</i> , 1971, 3, 571-576.	1.6	1

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55	Modified Maxwell-Bloch equations for systems under strong optical excitation. Journal of Luminescence, 1985, 34, 189-199.	1.5	1
56	The Non-Relativistic Many-Body Quantum-Mechanical Hamiltonian with Diamagnetic Current-Current Interaction. International Journal of Theoretical Physics, 2021, 60, 2236-2243.	0.5	1
57	Thermal Fluctuations and Electromagnetic Noise Spectra in Quantum Statistical Mechanics. International Journal of Theoretical Physics, 2022, 61, .	0.5	1
58	Representation of Green's Functions by path Integrals. Physica Status Solidi (B): Basic Research, 1965, 10, K17.	0.7	0
59	Random walk on a chain with dynamic disorder due to correlations. Physical Review B, 1987, 35, 5226-5234.	1.1	0
60	Banyai and Koch reply. Physical Review Letters, 1988, 60, 1206-1206.	2.9	0
61	Coherent spectroscopy of semiconductor quantum wires. , 1998, 3277, 119.		0
62	Valence Band Structure of a GaAs Superlattice. Physica Status Solidi (B): Basic Research, 1999, 211, 651-659.	0.7	0
63	Current Relaxation Kinetics in Crossed Magnetic and Electric Fields. Physica Status Solidi (B): Basic Research, 2000, 221, 481-484.	0.7	0
64	About the c-Number Approximation of the Macroscopical Boson Degrees of Freedom within a Solvable Model. Physica Status Solidi (B): Basic Research, 2002, 234, 14-16.	0.7	0