

Erich Kr Runge

List of Publications by Year in descending order

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121
papers

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citations

159358

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all docs

124
docs citations

124
times ranked

9664
citing authors

#	ARTICLE	IF	CITATIONS
1	Reconstructions of the As-Terminated GaAs(001) Surface Exposed to Atomic Hydrogen. ACS Omega, 2022, 7, 5064-5068.	1.6	3
2	Programmable Multiple Plasmonic Resonances of Nanoparticle Superlattice for Enhancing Photoelectrochemical Activity. Advanced Functional Materials, 2020, 30, 2005170.	7.8	14
3	Nonlinear plasmon-exciton coupling enhances sum-frequency generation from a hybrid metal/semiconductor nanostructure. Nature Communications, 2020, 11, 1464.	5.8	39
4	Ultrafast Optical Dynamics of a Nonlinearly Coupled Au Plasmon-ZnO Exciton Nanostructure. , 2020, , .		0
5	Doubly Resonant Plasmonic Hot Spotâ€“Exciton Coupling Enhances Second Harmonic Generation from Au/ZnO Hybrid Porous Nanosponges. ACS Photonics, 2019, 6, 2779-2787.	3.2	22
6	Metalorganic vapor phase epitaxy of IIIâ€“V-on-silicon: Experiment and theory. Progress in Crystal Growth and Characterization of Materials, 2018, 64, 103-132.	1.8	48
7	Strong Spatial and Spectral Localization of Surface Plasmons in Individual Randomly Disordered Gold Nanosponges. Nano Letters, 2018, 18, 4957-4964.	4.5	20
8	Mechanism of twin-reduced III-V epitaxy on As-modified vicinal Si(111). Physical Review Materials, 2018, 2, .	0.9	2
9	Impact of Rotational Twin Boundaries and Lattice Mismatch on IIIâ€“V Nanowire Growth. ACS Nano, 2017, 11, 8679-8689.	7.3	7
10	Long-lived electron emission reveals localized plasmon modes in disordered nanosponge antennas. Light: Science and Applications, 2017, 6, e17075-e17075.	7.7	33
11	Towards Optimal Disorder in Gold Nanosponges for Longâ€“Lived Localized Plasmonic Modes. Annalen Der Physik, 2017, 529, 1600234.	0.9	6
12	Thermodynamic stability of mixed Pb:Sn methylâ€“ammonium halide perovskites. Physica Status Solidi (B): Basic Research, 2016, 253, 1907-1915.	0.7	28
13	Near-field-assisted localization: effect of size and filling factor of randomly distributed zinc oxide nanoneedles on multiple scattering and localization of light. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	1
14	Image excitons and plasmon-exciton strong coupling in two-dimensional perovskite semiconductors. Physical Review B, 2015, 91, .	1.1	27
15	Electronic and Vibrational States of Single Tinâ€“Phthalocyanine Molecules in Double Layers on Ag(111). Journal of Physical Chemistry C, 2015, 119, 15716-15722.	1.5	16
16	Smoothing and regularization strategies for optimization of hybrid dynamic systems. Optimization and Engineering, 2015, 16, 541-569.	1.3	5
17	Excitons and excitonâ€“phonon coupling in the optical response of GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 297-301.	0.8	4
18	Optical spectroscopy of photovoltaic systems based on low-bandgap polymers. Thin Solid Films, 2014, 560, 77-81.	0.8	1

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19	Sub-bandgap absorption in organic solar cells: experiment and theory. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 16494.	1.3	55
20	Multivalence-band calculation of the excitonic dielectric function for hexagonal GaN. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 175801.	0.7	1
21	Ultrafast dynamics of localized light modes. <i>Annalen Der Physik</i> , 2013, 525, 199-204.	0.9	0
22	Simulation, Parameter Estimation and Optimization of an Industrial-Scale Evaporation System. <i>Advances in Intelligent Systems and Computing</i> , 2013, , 71-84.	0.5	0
23	Entanglement enhancement in spatially inhomogeneous many-body systems. <i>Physical Review A</i> , 2013, 87, .	1.0	6
24	Sub-bandgap absorption in polymer-fullerene solar cells studied by temperature-dependent external quantum efficiency and absorption spectroscopy. <i>Chemical Physics Letters</i> , 2012, 542, 70-73.	1.2	25
25	Voltage-Induced Adsorbate Damping of Single Gold Nanorod Plasmons in Aqueous Solution. <i>Nano Letters</i> , 2012, 12, 1247-1252.	4.5	75
26	Observing the localization of light in space and time by ultrafast second-harmonic microscopy. <i>Nature Photonics</i> , 2012, 6, 293-298.	15.6	57
27	Influence of Phonon Scattering on Exciton and Charge Diffusion in Polymer-Fullerene Solar Cells. <i>Advanced Energy Materials</i> , 2012, 2, 999-1003.	10.2	15
28	Direct observation of optical excitation transfer based on resonant optical near-field interaction. <i>Applied Physics B: Lasers and Optics</i> , 2012, 107, 257-262.	1.1	3
29	First-principles GW calculations for DNA and RNA nucleobases. <i>Physical Review B</i> , 2011, 83, .	1.1	152
30	Electron-phonon coupling in the C60 fullerene within the many-body GW approach. <i>Physical Review B</i> , 2011, 84, .	1.1	82
31	Ultrafast manipulation of the Rabi splitting in metal-molecular aggregate hybrid nanostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 1113-1116.	0.8	0
32	The design of efficient surface-plasmon-enhanced ultra-thin polymer-based solar cells. <i>Applied Physics Letters</i> , 2011, 99, 093307.	1.5	25
33	Ultrafast manipulation of the large Rabi splitting in metal-J-aggregate hybrid nanostructures. , 2011, , .		0
34	Calculation of exciton wave functions in electric fields. <i>Journal of Physics: Conference Series</i> , 2010, 210, 012047.	0.3	5
35	Surface plasmon polaritons on square-lattice arrays of three-fold symmetric nanostructures. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2010, 8, 297-302.	1.0	2
36	German-Algerian University Exchange from the Perspective of Students and Teachers. <i>Journal of Studies in International Education</i> , 2010, 14, 240-258.	1.9	6

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37	Efficient optical excitation transfer in layered quantum dot nanostructures networked via optical near-field interactions. <i>Physical Review B</i> , 2010, 82, .	1.1	7
38	Subbandgap absorption in polymer-fullerene solar cells. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	31
39	Ultrafast Manipulation of Strong Coupling in Metal-Molecular Aggregate Hybrid Nanostructures. <i>ACS Nano</i> , 2010, 4, 7559-7565.	7.3	172
40	Surface plasmon polariton-exciton interaction in metal-semiconductor and metal-dye nanostructures. <i>Journal of Physics: Conference Series</i> , 2010, 210, 012001.	0.3	0
41	Surface plasmon polaritons on arrays of nanostructures with three-fold symmetry. , 2009, , .		0
42	Ultrafast optical nonlinearities in hybrid metal-J-aggregate nanostructures. , 2009, , .		0
43	Coherent exciton-surface plasmon polariton interactions in hybrid metal semiconductor nanostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, 466-469.	0.8	2
44	The influence of wire shape on surface plasmon mode distribution. <i>Applied Physics B: Lasers and Optics</i> , 2008, 93, 111-115.	1.1	8
45	Theory of the surface plasmon polariton-exciton interaction in multi-layer systems. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 1071-1075.	0.7	3
46	Coherent Exciton-Surface-Plasmon-Polariton Interaction in Hybrid Metal-Semiconductor Nanostructures. <i>Physical Review Letters</i> , 2008, 101, 116801.	2.9	202
47	CALCULATION AND INTERPRETATION OF SURFACE-PLASMON-POLARITON FEATURES IN THE REFLECTIVITY OF METALLIC NANOWIRE ARRAYS. <i>International Journal of Modern Physics B</i> , 2008, 22, 4442-4451.	1.0	2
48	CALCULATION AND INTERPRETATION OF SURFACE-PLASMON-POLARITON FEATURES IN THE REFLECTIVITY OF METALLIC NANOWIRE ARRAYS. , 2008, , .		0
49	FRACTIONALLY CHARGED EXCITATIONS ON FRUSTRATED LATTICES. <i>International Journal of Modern Physics B</i> , 2007, 21, 2215-2231.	1.0	2
50	Coherent exciton - surface plasmon polariton interactions in hybrid metal semiconductor nanostructures. , 2007, , .		1
51	Tunable nanowires: An additional degree of freedom in plasmonics. <i>Physical Review B</i> , 2007, 76, .	1.1	18
52	Charge degrees in the quarter-filled checkerboard lattice. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 966-968.	1.0	2
53	Interpretation of near-field images of semiconductor nanostructures. <i>Applied Physics B: Lasers and Optics</i> , 2006, 84, 103-110.	1.1	8
54	Classical correlations of defects in lattices with geometrical frustration in the motion of a particle. <i>Physical Review B</i> , 2006, 73, .	1.1	5

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55	Spectral functions and optical conductivity of spinless fermions on a checkerboard lattice. Physical Review B, 2006, 73, .	1.1	21
56	Spectral functions for strongly correlated electrons. Physical Review B, 2006, 73, .	1.1	10
57	Near-field wave-function spectroscopy of excitons and biexcitons. Physical Review B, 2005, 71, .	1.1	11
58	Dual nature of electrons: Effect of intra-atomic correlations on hopping anisotropies. Physical Review B, 2004, 69, .	1.1	33
59	Theory of Rayleigh scattering using finite-dimension random-matrix theory. Physical Review B, 2004, 69, .	1.1	15
60	Approximative treatment of f-systems with partial localization due to intra-atomic correlations. Physical Review B, 2004, 69, .	1.1	15
61	Charge degrees of freedom in frustrated lattice structures. Physical Review B, 2004, 70, .	1.1	35
62	Near-field autocorrelation spectroscopy of disordered semiconductor quantum wells. Physical Review B, 2004, 69, .	1.1	14
63	Excitons in disordered nanostructures: From the Schrödinger equation to random matrix theory. Physica Status Solidi A, 2004, 201, 389-397.	1.7	2
64	Random-matrix model of resonant Rayleigh scattering in systems with exciton fine-structure splitting. Physica Status Solidi (B): Basic Research, 2004, 241, 2065-2078.	0.7	0
65	Level repulsion of exciton states in disordered semiconductor nanostructures. Physica Status Solidi (B): Basic Research, 2003, 238, 478-485.	0.7	13
66	Excitons in Semiconductor Nanostructures. Solid State Physics, 2003, 57, 149-305.	1.3	30
67	Exact calculation of distributions for excitonic oscillator strength and inverse participation ratio in disordered quantum wires. Physical Review B, 2003, 67, .	1.1	8
68	Enhanced Resonant Backscattering of Excitons in Disordered Quantum Wells. Physical Review Letters, 2002, 89, 157401.	2.9	26
69	Thermoelectric properties of anisotropic semiconductors. Physical Review B, 2002, 65, .	1.1	42
70	Thermal conductivity reduction in HgTe/CdTe superlattices. Journal of Applied Physics, 2002, 91, 2033-2036.	1.1	8
71	Preface: phys. stat. sol. (b) 234/1. Physica Status Solidi (B): Basic Research, 2002, 234, 3-6.	0.7	2
72	Two Decades of Secondary Emission in Quantum Wells. Physica Status Solidi (B): Basic Research, 2002, 234, 96-106.	0.7	3

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73	Level Repulsion of Localized Excitons in Disordered Quantum Wells. <i>Physica Status Solidi A</i> , 2002, 190, 625-629.	1.7	5
74	Near-field spectroscopy of a coupled wire-dot nanostructure grown on (311)A GaAs. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 91-92, 105-114.	1.7	1
75	Quantum mechanical repulsion of exciton levels in a disordered quantum well evidenced by near-field spectroscopy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 13, 178-181.	1.3	1
76	Randomness in Optical Spectra of Semiconductor Nanostructures. , 2002, , 241-257.		0
77	Localized excitons in quantum wells show spin relaxation without coherence loss. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 40-44.	1.3	12
78	Theory of Trion Spectra in Semiconductor Nanostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2001, 227, 317-330.	0.7	75
79	Quantum Mechanical Repulsion of Exciton Levels in a Disordered Quantum Well. <i>Physical Review Letters</i> , 2001, 87, 076801.	2.9	88
80	Optical properties of trions in semiconductor nanostructures. <i>Springer Proceedings in Physics</i> , 2001, , 525-526.	0.1	0
81	Electron and Hole Trions in Wide GaAs Quantum Wells. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 221, 281-286.	0.7	16
82	Spin Relaxation without Coherence Loss: Fine-Structure Splitting of Localized Excitons. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 221, 349-353.	0.7	15
83	Theory of Ultrafast Rayleigh Scattering in Semiconductor Quantum Wells. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 221, 365-371.	0.7	4
84	Trions in GaAs Quantum Wells: Photoluminescence Lineshape Analysis. <i>Physica Status Solidi A</i> , 2000, 178, 489-494.	1.7	33
85	Quantum-wire exciton dispersion in a multiband real-space scheme. <i>Physical Review B</i> , 2000, 61, 16854-16861.	1.1	8
86	Enhanced resonant backscattering of light from quantum-well excitons. <i>Physical Review B</i> , 2000, 62, R4805-R4808.	1.1	22
87	Center-of-mass properties of the exciton in quantum wells. <i>Physical Review B</i> , 2000, 61, 10854-10867.	1.1	19
88	Statistical properties of speckle distributions in resonant secondary emission. <i>Physical Review B</i> , 2000, 61, 4786-4794.	1.1	11
89	Photoluminescence and radiative lifetime of trions in GaAs quantum wells. <i>Physical Review B</i> , 2000, 62, 8232-8239.	1.1	158
90	Competition between radiative decay and energy relaxation of carriers in disordered $\text{In}_x\text{Ga}_{1-x}\text{As}$ /GaAs quantum wells. <i>Physical Review B</i> , 2000, 61, 10985-10993.	1.1	44

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91	Exciton capture and losses in a stacked submicron array of sidewall quantum wires on patterned GaAs(311)A substrates. Physical Review B, 1999, 60, 11038-11044.	1.1	12
92	Optical properties of localized excitons in nanostructures: Theoretical aspects. , 1999, , 251-263.		28
93	Level repulsion in excitonic spectra of disordered systems and local relaxation kinetics. Annalen Der Physik, 1998, 7, 417-426.	0.9	11
94	Exciton dispersion in quantum wells. Annalen Der Physik, 1998, 7, 523-528.	0.9	4
95	Spatially Resolved Spectra, Effective Mobility Edge, and Level Repulsion in Narrow Quantum Wells. Physica Status Solidi (B): Basic Research, 1998, 206, 167-174.	0.7	40
96	Partial dephasing in interacting many-particle systems and current echo. Physical Review B, 1998, 57, 4299-4303.	1.1	4
97	<title>Radiative lifetime in semiconductors: influence of photon recycling</title>. , 1997, , .		7
98	Excitons in semiconductor nanostructures with disorder. Pure and Applied Chemistry, 1997, 69, 1179-1186.	0.9	102
99	Effective exciton mobility edge in narrow quantum wells. Physical Review B, 1997, 56, R4387-R4390.	1.1	48
100	Excitons in Narrow Quantum Wells: Disorder Localization and Luminescence Kinetics. Physica Status Solidi A, 1997, 164, 511-516.	1.7	92
101	Lateral variations of the quantum well confinement energy reflected by SEM-cathodoluminescence. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 42, 133-140.	1.7	2
102	Exciton localization, photoluminescence spectra, and interface roughness in thin quantum wells. Physical Review B, 1996, 54, 2733-2738.	1.1	48
103	Electronic structure calculations and strong correlations: A model study. Annalen Der Physik, 1996, 508, 333-354.	0.9	6
104	Cathodoluminescence microscopy of inhomogeneities in semiconductor heterostructures. Physica Status Solidi A, 1995, 150, 439-452.	1.7	7
105	Relaxation kinetics and photoluminescence lineshape of excitons in II-VI semiconductor quantum wells. Physica Status Solidi (B): Basic Research, 1995, 188, 547-555.	0.7	31
106	Electronic structure of CeRu ₂ Si ₂ . Physical Review B, 1995, 51, 10375-10385.	1.1	32
107	Roughness of heterointerfaces and averaging effects by excitons: Interpretation of cathodoluminescence images. Physical Review B, 1995, 52, 12207-12211.	1.1	13
108	Dynamics of Exciton Recombination in II-VI Semiconductor Quantum Wells. Japanese Journal of Applied Physics, 1995, 34, 155.	0.8	2

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109	Optical absorption and exciton linewidths of Zn _{1-x} CdxSe quantum wells. Physical Review B, 1994, 49, 7424-7431.	1.1	42
110	Band structure of femtosecond-laser-pulse excited GaAs. Solid State Communications, 1994, 89, 119-122.	0.9	26
111	Exciton lineshape in semiconductor quantum structures with interface roughness. Journal of Luminescence, 1994, 60-61, 320-323.	1.5	40
112	<title>Luminescence kinetics and lifetime of excitons in quantum wells with interface roughness</title>. , 1994, , .		2
113	Noise in alloy-based resonant-tunneling structures. Physical Review B, 1993, 47, 2003-2009.	1.1	12
114	Response and transit times in quantum-well structures. Physical Review B, 1992, 45, 9145-9148.	1.1	36
115	Non-equilibrium transport in alloy based resonant tunneling systems. Annals of Physics, 1992, 219, 55-77.	1.0	17
116	Low-energy excitations in heavy fermion systems. Physica B: Condensed Matter, 1990, 163, 97-99.	1.3	50
117	QUASIPARTICLE BAND STRUCTURE OF Ce-BASED HEAVY-FERMION COMPOUNDS. Journal De Physique Colloque, 1988, 49, C8-753-C8-754.	0.2	4
118	Density-Functional Theory for Time-Dependent Systems. Physical Review Letters, 1984, 52, 997-1000.	2.9	7,180
119	Functionals of fractional form in variational scattering theory. Physical Review A, 1982, 26, 3004-3007.	1.0	12
120	Coherence of excitonic secondary emission quantified by time resolved speckle analysis. , 0, , .		0
121	Near-field imaging and spectroscopy of localized and delocalized excitons in semiconductor nanostructures. , 0, , .		0