Nenad Vukmirovic

List of Publications by Year
in descending order

98 papers	2,726 citations	218677 26 h-index	197818 49 g-index
100 all docs	100 docs citations	100 times ranked	3429 citing authors

#	Article	IF	Citations
1	Spectral and thermodynamic properties of the Holstein polaron: Hierarchical equationsÂ of motion approach. Physical Review B, 2022, 105, .	3.2	10
2	High-Resolution Doppler and Azimuth Estimation and Target Detection in HFSWR: Experimental Study. Sensors, 2022, 22, 3558.	3.8	0
3	Performance Limits of Direct Wideband Coherent 3D Localization in Distributed Massive MIMO Systems. Sensors, 2021, 21, 3401.	3.8	1
4	Nonequilibrium Thermodynamics of Charge Separation in Organic Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 6389-6397.	4.6	3
5	Calculations of electron mobility in II-VI semiconductors. Physical Review B, 2021, 104, .	3.2	8
6	Coherent Wideband Direct Localization: Challenges and Recent Results. , 2021, , .		0
7	Aerosol Synthesis and Gas-Phase Photoelectron Spectroscopy of Ag-Bi-I Nanosystems. Journal of Physical Chemistry C, 2020, 124, 23930-23937.	3.1	13
8	Ab initio construction of symmetry-adapted <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">k</mml:mi><mml:mo>Â·</mml:mo><mml:mi mathvariant="normal">p</mml:mi></mml:mrow></mml:math> Hamiltonians for the electronic structure of semiconductors. Physical Review B, 2020, 102, .	3.2	7
9	Energy-Temporal Pathways of Free-Charge Formation at Organic Bilayers: Competition of Delocalization, Disorder, and Polaronic Effects. Journal of Physical Chemistry C, 2020, 124, 4378-4392.	3.1	6
10	Naturally safe: Cellular noise for document security. Journal of Biophotonics, 2019, 12, e201900218.	2.3	4
11	Charge carrier mobility in systems with local electron-phonon interaction. Physical Review B, 2019, 99, .	3.2	22
12	Direct Wideband Coherent Localization by Distributed Antenna Arrays. Sensors, 2019, 19, 4582.	3.8	10
13	Combination of Charge Delocalization and Disorder Enables Efficient Charge Separation at Photoexcited Organic Bilayers. Journal of Physical Chemistry C, 2018, 122, 10343-10359.	3.1	15
14	Gaussian basis implementation of the charge patching method. Journal of Computational Physics, 2018, 368, 196-209.	3.8	0
15	Polaron mobility obtained by a variational approach for lattice FrÃ¶hlich models. Annals of Physics, 2018, 391, 183-202.	2.8	3
16	Dynamics of Photoexcited Charges in Organic Heterojunctions - Insights from Theory and Simulation. , 2018, , .		0
17	Position estimation with a millimeter-wave massive MIMO system based on distributed steerable phased antenna arrays. Eurasip Journal on Advances in Signal Processing, 2018, 2018, 33.	1.7	13
18	Effects of thermal disorder on the electronic structure of halide perovskites: insights from MD simulations. Physical Chemistry Chemical Physics, 2018, 20, 25693-25700.	2.8	17

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19	Investigation of carrier confinement in direct bandgap GeSn/SiGeSn 2D and 0D heterostructures. Scientific Reports, 2018, 8, 15557.	3.3	36
20	Effective Refractive-Index Approximation: A Link between Structural and Optical Disorder of Planar Resonant Optical Structures. Physical Review Applied, 2018, 9, .	3.8	5
21	Electronic Properties of Free-Standing Surfactant-Capped Lead Halide Perovskite Nanocrystals Isolated in Vacuo. Journal of Physical Chemistry Letters, 2018, 9, 3604-3611.	4.6	18
22	Origin of space-separated charges in photoexcited organic heterojunctions on ultrafast time scales. Physical Review B, 2017, 95, .	3.2	17
23	Identification of Ultrafast Photophysical Pathways in Photoexcited Organic Heterojunctions. Journal of Physical Chemistry C, 2017, 121, 19602-19618.	3.1	9
24	Stochastic analysis of flood series. Hydrological Sciences Journal, 2017, 62, 1721-1735.	2.6	2
25	Spontaneous Polarization Induced by Side Chains in Ordered Poly(3-hexylthiophene). Journal of Physical Chemistry C, 2016, 120, 18895-18900.	3.1	3
26	Towards the High Performance Method for Large-Scale Electronic Structure Calculations. Lecture Notes in Computer Science, 2016, , 90-99.	1.3	1
27	Influence of composition, strain, and electric field anisotropy on different emission colors and recombination dynamics from InGaN nanodisks in pencil-like GaN nanowires. Physical Review B, 2016, 93, .	3.2	18
28	Dynamics of exciton formation and relaxation in photoexcited semiconductors. Physical Review B, 2015, 92, .	3.2	11
29	Visible Spectrum Quantum Light Sources Based on In_xGa_{1â€“x}N/GaN Quantum Dots. ACS Photonics, 2015, 2, 958-963.	6.6	20
30	Electronic States at the Interface between Crystalline and Amorphous Domains in Conjugated Polymers. Journal of Physical Chemistry C, 2015, 119, 23329-23333.	3.1	10
31	Charge Carrier Localization and Transport in Organic Semiconductors: Insights from Atomistic Multiscale Simulations. Advanced Functional Materials, 2015, 25, 1915-1932.	14.9	45
32	Effects of thermal disorder on the electronic properties of ordered polymers. Physical Chemistry Chemical Physics, 2014, 16, 25950-25958.	2.8	15
33	Importance of Polaronic Effects for Charge Transport in CdSe Quantum Dot Solids. Journal of Physical Chemistry Letters, 2014, 5, 1335-1340.	4.6	21
34	Nonequilibrium optical conductivity in materials with localized electronic states. Physical Review B, 2014, 90, .	3.2	1
35	Toward an Ideal Polymer Binder Design for High-Capacity Battery Anodes. Journal of the American Chemical Society, 2013, 135, 12048-12056.	13.7	332
36	A comparative study of electronic properties of disordered conjugated polymers. Physical Chemistry Chemical Physics, 2013, 15, 3543.	2.8	17

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37	Electronic States at Low-Angle Grain Boundaries in Polycrystalline Naphthalene. Journal of Physical Chemistry C, 2013, 117, 15741-15748.	3.1	18
38	Nonadiabatic molecular dynamics simulation for carrier transport in a pentathiophene butyric acid monolayer. Physical Review B, 2013, 87, .	3.2	51
39	Atomic and electronic structure of grain boundaries in crystalline organic semiconductors. Physica Scripta, 2013, T157, 014061.	2.5	0
40	Excitonic properties of GaN/AlN quantum dot single photon sources. , 2012, , .		0
41	Electron-Phonon Coupling in Crystalline Organic Semiconductors: Microscopic Evidence for Nonpolaronic Charge Carriers. Physical Review Letters, 2012, 109, 126407.	7.8	33
42	Electronic properties calculation of Ge1â^'xâ^'ySixSny ternary alloy and nanostructure. Journal of Non-Crystalline Solids, 2012, 358, 2096-2098.	3.1	23
43	Electronic states and intraband terahertz optical transitions in InGaAs quantum rods. Journal of Applied Physics, 2012, 111, 073110.	2.5	5
44	Electron and Hole Contributions to the Terahertz Photoconductivity of a Conjugated Polymer:Fullerene Blend Identified. Journal of Physical Chemistry Letters, 2012, 3, 2442-2446.	4.6	32
45	Insights into the Charge Carrier Terahertz Mobility in Polyfluorenes from Large-Scale Atomistic Simulations and Time-Resolved Terahertz Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 19665-19672.	3.1	26
46	Spin relaxation in CdTe quantum dots with a single Mn atom. Physical Review B, 2012, 85, .	3.2	8
47	The role of disorder on the electronic structure of conjugated polymers. The case of poly-2,5-bis(phenylethynyl)-1,3,4-thiadiazole. Physical Chemistry Chemical Physics, 2011, 13, 14500.	2.8	14
48	Overlapping fragments method for electronic structure calculation of large systems. Journal of Chemical Physics, 2011, 134, 094119.	3.0	18
49	Density of States and Wave Function Localization in Disordered Conjugated Polymers: A Large Scale Computational Study. Journal of Physical Chemistry B, 2011, 115, 1792-1797.	2.6	46
50	Charge Transport in a Quantum Dot Supercrystal. Journal of Physical Chemistry C, 2011, 115, 21409-21415.	3.1	73
51	Electrical Transport Properties of Oligothiophene-Based Molecular Films Studied by Current Sensing Atomic Force Microscopy. Nano Letters, 2011, 11, 4107-4112.	9.1	34
52	Polymers with Tailored Electronic Structure for High Capacity Lithium Battery Electrodes. Advanced Materials, 2011, 23, 4679-4683.	21.0	505
53	Symmetry reduction in multiband Hamiltonians for semiconductor quantum dots: The role of interfaces and higher energy bands. Journal of Applied Physics, 2011, 110, .	2.5	29
54	Theoretical modelling of InGaAs quantum rods: Terahertz intraband absorption and its dependence on rod height. Journal of Physics: Conference Series, 2010, 242, 012012.	0.4	2

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55	SnGe Asymmetric Quantum Well Electroabsorption Modulators for Long-Wave Silicon Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 100-105.	2.9	22
56	Electron-phonon coupling in graphene antidot lattices: An indication of polaronic behavior. Physical Review B, 2010, 81, .	3.2	19
57	Carrier heating in disordered conjugated polymers in electric field. Physical Review B, 2010, 81, .	3.2	13
58	Carrier hopping in disordered semiconducting polymers: How accurate is the Millerâ€“Abrahams model?. Applied Physics Letters, 2010, 97, .	3.3	46
59	Polaronic signatures and spectral properties of graphene antidot lattices. Physical Review B, 2010, 82, .	3.2	26
60	Excitonic and biexcitonic properties of single GaN quantum dots modeled by 8-band<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="bold">k</mml:mi><mml:mo>â‹…</mml:mo><mml:mi mathvariant="bold">p</mml:mi></mml:mrow></mml:math>theory and configuration-interaction method. Physical Review B, 2009, 79, .	3.2	42
61	Electronic structure and optical transitions in Sn and SnGe quantum dots in a Si matrix. Microelectronics Journal, 2009, 40, 483-485.	2.0	5
62	Electronic Structure of Disordered Conjugated Polymers: Polythiophenes. Journal of Physical Chemistry B, 2009, 113, 409-415.	2.6	92
63	Charge Carrier Motion in Disordered Conjugated Polymers: A Multiscale Ab Initio Study. Nano Letters, 2009, 9, 3996-4000.	9.1	83
64	An efficient method for multi-band plane wave CI calculations in semiconductor QD's. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1924-1925.	2.7	0
65	Plane wave methodology for single quantum dot electronic structure calculations. Journal of Applied Physics, 2008, 103, .	2.5	43
66	Electron Transport and Terahertz Gain in Quantum-Dot Cascades. IEEE Photonics Technology Letters, 2008, 20, 129-131.	2.5	18
67	Charge patching method for electronic structure of organic systems. Journal of Chemical Physics, 2008, 128, 121102.	3.0	37
68	On the coherence/incoherence of electron transport in semiconductor heterostructure optoelectronic devices. Proceedings of SPIE, 2008, , .	0.8	3
69	Electronic structure and optical properties of Sn and SnGe quantum dots. Journal of Applied Physics, 2008, 103, .	2.5	28
70	Stark shift of the spectral response in quantum dots-in-a-well infrared photodetectors. Journal Physics D: Applied Physics, 2007, 40, 5537-5540.	2.8	22
71	Effect of GaP strain compensation layers on rapid thermally annealed InGaAsâˆ•GaAs quantum dot infrared photodetectors grown by metal-organic chemical-vapor deposition. Applied Physics Letters, 2007, 91, .	3.3	5
72	Quantum transport in semiconductor quantum dot superlattices: Electron-phonon resonances and polaron effects. Physical Review B, 2007, 76, .	3.2	26

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73	Intraband magneto-optical properties of magnetic quantum dots. Physical Review B, 2007, 76, .	3.2	11
74	Density matrix theory of transport and gain in quantum cascade lasers in a magnetic field. Physical Review B, 2007, 76, .	3.2	40
75	A microscopic model of electron transport in quantum dot infrared photodetectors. Journal of Applied Physics, 2006, 100, 074502.	2.5	23
76	Design of a ZnMnSeâˆ•ZnMgSe spin-polarized terahertz quantum cascade laser tunable by magnetic field. Applied Physics Letters, 2006, 89, 011109.	3.3	8
77	Quantum dots-in-a-well infrared photodetectors grown by MOCVD. , 2006, , .		1
78	Symmetry-based calculation of single-particle states and intraband absorption in hexagonal GaN/AlN quantum dot superlattices. Journal of Physics Condensed Matter, 2006, 18, 6249-6262.	1.8	19
79	On the incoherence of quantum transport in semiconductor heterostructure optoelectronic devices. International Biennial Baltic Electronics Conference, 2006, , .	0.0	0
80	Intraband absorption in InAs/GaAs quantum dot infrared photodetectorsâ€"effective mass versuskÃ—pmodelling. Semiconductor Science and Technology, 2006, 21, 1098-1104.	2.0	38
81	Electron transport in quantum cascade lasers in a magnetic field. Physical Review B, 2006, 73, .	3.2	23
82	Influence of doping density on electron dynamics in GaAsâˆ•AlGaAs quantum cascade lasers. Journal of Applied Physics, 2006, 99, 103106.	2.5	47
83	Influence of injector doping density and electron confinement on the properties of GaAs/Al0.45Ga0.55As quantum cascade lasers. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 411-414.	0.8	4
84	Symmetry based calculation of electronic structure and intraband absorption in GaN/AlN hexagonal quantum dot superlattices. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3939-3942.	0.8	0
85	Theoretical modelling of electron transport in InAs/GaAs quantum dot superlattices. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3770-3773.	0.8	0
86	Lasing in spin-polarized terahertz quantum cascade structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4401-4404.	0.8	0
87	Origin of detection wavelength tuning in quantum dots-in-a-well infrared photodetectors. Applied Physics Letters, 2006, 88, 251107.	3.3	20
88	Selective wavelength tuning of self-assembled InAs quantum dots grown on InP. Applied Physics Letters, 2006, 88, 193112.	3.3	18
89	Effects of rapid thermal annealing on device characteristics of InGaAsâˆ•GaAs quantum dot infrared photodetectors. Journal of Applied Physics, 2006, 99, 114517.	2.5	45
90	Dependence of saturation effects on electron confinement and injector doping in GaAsâˆ•Al0.45Ga0.55As quantum-cascade lasers. Applied Physics Letters, 2006, 88, 251109.	3.3	16

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91	Optically pumped intersublevel MidInfrared lasers based on InAs-GaAs quantum dots. IEEE Journal of Quantum Electronics, 2005, 41, 1361-1368.	1.9	19
92	A physical model of quantum cascade lasers: Application to GaAs, GaN and SiGe devices. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 980-986.	1.8	14
93	Optically pumped terahertz laser based on intersubband transitions in a GaNâˆ•AlGaN double quantum well. Journal of Applied Physics, 2005, 97, 103106.	2.5	51
94	Magnetic-field tunable terahertz quantum well infrared photodetector. Journal of Applied Physics, 2005, 98, 084509.	2.5	15
95	Mechanisms of dynamic range limitations in GaAsâˆ•AlGaAs quantum-cascade lasers: Influence of injector doping. Applied Physics Letters, 2005, 86, 211117.	3.3	69
96	Symmetry ofkâ^™pHamiltonian in pyramidalInAsâˆ•GaAsquantum dots: Application to the calculation of electronic structure. Physical Review B, 2005, 72, .	3.2	43
97	Relationship between carrier dynamics and temperature in terahertz quantum cascade structures: simulation of GaAs/AlGaAs, SiGe/Si and GaN/AlGaN devices. Semiconductor Science and Technology, 2005, 20, S237-S245.	2.0	32
98	Physical Model and Scattering Dynamics Engineering for Intersubband Lasers and Photodetectors. , 0, , .		0