

Eric Bittner

List of Publications by Year in descending order

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117
papers

3,498
citations

126708

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155451

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121
all docs

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docs citations

121
times ranked

2560
citing authors

#	ARTICLE	IF	CITATIONS
1	Homogeneous Optical Line Widths in Hybrid Ruddlesden-Popper Metal Halides Can Only Be Measured Using Nonlinear Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2022, 126, 5378-5387.	1.5	7
2	Concerning the stability of biexcitons in hybrid HJ aggregates of π -conjugated polymers. <i>Journal of Chemical Physics</i> , 2022, 156, 181101.	1.2	1
3	Stochastic exciton-scattering theory of optical line shapes: Renormalized many-body contributions. <i>Journal of Chemical Physics</i> , 2022, 157, .	1.2	1
4	Quantum Light Emission from Coupled Defect States in DNA-Functionalized Carbon Nanotubes. <i>ACS Nano</i> , 2021, 15, 10406-10414.	7.3	22
5	Frenkel biexcitons in hybrid HJ photophysical aggregates. <i>Science Advances</i> , 2021, 7, eabi5197.	4.7	10
6	Stochastic scattering theory for excitation-induced dephasing: Time-dependent nonlinear coherent exciton lineshapes. <i>Journal of Chemical Physics</i> , 2020, 153, 164706.	1.2	12
7	Stochastic scattering theory for excitation-induced dephasing: Comparison to the Anderson-Kubo lineshape. <i>Journal of Chemical Physics</i> , 2020, 153, 154115.	1.2	7
8	Probing exciton/exciton interactions with entangled photons: Theory. <i>Journal of Chemical Physics</i> , 2020, 152, 071101.	1.2	9
9	Mixed Quantum Classical Simulations of Charge-Transfer Dynamics in a Model Light-Harvesting Complex. I. Charge-Transfer Dynamics. <i>Journal of Physical Chemistry B</i> , 2020, 124, 2149-2157.	1.2	3
10	Mixed Quantum Classical Simulations of Charge-Transfer Dynamics in a Model Light-Harvesting Complex. II. Transient Vibrational Analysis. <i>Journal of Physical Chemistry B</i> , 2020, 124, 2158-2167.	1.2	2
11	Nonequilibrium states of a plasmonic Dicke model with coherent and dissipative surface-plasmon-quantum-emitter interactions. <i>Physical Review Research</i> , 2020, 2, .	1.3	3
12	Electron-Phonon Couplings Inherent in Polarons Drive Exciton Dynamics in Two-Dimensional Metal-Halide Perovskites. <i>Chemistry of Materials</i> , 2019, 31, 7085-7091.	3.2	40
13	Photovoltaics and bio-inspired light harvesting: general discussion. <i>Faraday Discussions</i> , 2019, 216, 269-300.	1.6	0
14	Energy and charge-transfer in natural photosynthesis: general discussion. <i>Faraday Discussions</i> , 2019, 216, 133-161.	1.6	1
15	How charges separate: correlating disorder, free energy, and open-circuit voltage in organic photovoltaics. <i>Faraday Discussions</i> , 2019, 216, 236-251.	1.6	4
16	Photon entanglement entropy as a probe of many-body correlations and fluctuations. <i>Journal of Chemical Physics</i> , 2019, 150, 184106.	1.2	12
17	Spectroscopic Investigation of the Effect of Microstructure and Energetic Offset on the Nature of Interfacial Charge Transfer States in Polymer: Fullerene Blends. <i>Journal of the American Chemical Society</i> , 2019, 141, 4634-4643.	6.6	34
18	Relating free energy and open-circuit voltage to disorder in organic photovoltaic systems. <i>Journal of Chemical Physics</i> , 2018, 149, 244123.	1.2	6

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19	Probing dynamical symmetry breaking using quantum-entangled photons. <i>Quantum Science and Technology</i> , 2018, 3, 015003.	2.6	14
20	Quantum Simulations of Charge Separation at a Model Donor-Acceptor Interface: Role of Delocalization and Local Packing. <i>Advances in Condensed Matter Physics</i> , 2018, 2018, 1-10.	0.4	3
21	Identifying electron transfer coordinates in donor-bridge-acceptor systems using mode projection analysis. <i>Nature Communications</i> , 2017, 8, 14554.	5.8	27
22	Tripodal amine ligands for accelerating Cu-catalyzed azide-alkyne cycloaddition: efficiency and stability against oxidation and dissociation. <i>Catalysis Science and Technology</i> , 2017, 7, 2474-2485.	2.1	17
23	Excitonic coupling dominates the homogeneous photoluminescence excitation linewidth in semicrystalline polymeric semiconductors. <i>Physical Review B</i> , 2017, 95, .	1.1	17
24	Probing polaron excitation spectra in organic semiconductors by photoinduced-absorption-detected two-dimensional coherent spectroscopy. <i>Chemical Physics</i> , 2016, 481, 281-286.	0.9	12
25	Ultrafast decoherence dynamics govern photocarrier generation efficiencies in polymer solar cells. <i>Scientific Reports</i> , 2016, 6, 29437.	1.6	52
26	Quantum Symmetry Breaking of Exciton/Polaritons in a Metal-Nanorod Plasmonic Array. <i>Journal of Physical Chemistry A</i> , 2016, 120, 3109-3116.	1.1	7
27	Computing intramolecular charge and energy transfer rates using optimal modes. <i>Journal of Chemical Physics</i> , 2015, 142, 244114.	1.2	8
28	The role of structural fluctuations and environmental noise in the electron/hole separation kinetics at organic polymer bulk-heterojunction interfaces. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28853-28859.	1.3	13
29	Role of dark excitations in the nonequilibrium condensation of exciton polaritons in optically-pumped organic single crystal microcavities. <i>International Journal of Modern Physics B</i> , 2015, 29, 1550157.	1.0	1
30	Noise-induced quantum coherence drives photo-carrier generation dynamics at polymeric semiconductor heterojunctions. <i>Nature Communications</i> , 2014, 5, 3119.	5.8	111
31	How disorder controls the kinetics of triplet charge recombination in semiconducting organic polymer photovoltaics. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 20321-20328.	1.3	37
32	Intramolecular Charge- and Energy-Transfer Rates with Reduced Modes: Comparison to Marcus Theory for Donor-Bridge-Acceptor Systems. <i>Journal of Physical Chemistry A</i> , 2014, 118, 5196-5203.	1.1	19
33	Competing role of quantum localization and interfacial disorder in determining triplet exciton fission and recombination dynamics in polymer/fullerene photovoltaics. <i>Proceedings of SPIE</i> , 2014, , .	0.8	0
34	Quantum origins of molecular recognition and olfaction in drosophila. <i>Journal of Chemical Physics</i> , 2012, 137, 22A551.	1.2	34
35	Exciton Dynamics in Disordered Poly(<i>p</i> -phenylenevinylene). 2. Exciton Diffusion. <i>Journal of Physical Chemistry A</i> , 2012, 116, 10319-10327.	1.1	41
36	Thermodynamics of exciton/polaritons in one and two dimensional organic single-crystal microcavities. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 3226.	1.3	9

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37	Estimating the conditions for polariton condensation in organic thin-film microcavities. Journal of Chemical Physics, 2012, 136, 034510.	1.2	19
38	Adaptive Quantum Monte Carlo Approach States for High-Dimensional Systems. , 2012, , 303-373.		2
39	Reply to "Comment on 'New Generalization of Supersymmetric Quantum Mechanics to Arbitrary Dimensionality or Number of Distinguishable Particles'" Journal of Physical Chemistry A, 2011, 115, 950-950.	1.1	7
40	Mixed quantum classical simulations of excitons in peptide helices. Journal of Chemical Physics, 2011, 134, 205103.	1.2	13
41	Drift-diffusion of a localized quantum state along a thermal gradient in a model $\hat{\pm}$ -helix. Chemical Physics, 2010, 370, 137-142.	0.9	9
42	Isotopic effect and temperature dependent intramolecular excitation energy transfer in a model donor-acceptor dyad. Physical Chemistry Chemical Physics, 2010, 12, 7418.	1.3	6
43	New Generalization of Supersymmetric Quantum Mechanics to Arbitrary Dimensionality or Number of Distinguishable Particles. Journal of Physical Chemistry A, 2010, 114, 8202-8216.	1.1	13
44	Energy and charge-transfer dynamics using projected modes. Journal of Chemical Physics, 2009, 131, 034104.	1.2	22
45	Ultrafast Electronic Processes At Semiconductor Polymer Heterojunctions: A Molecular-Level, Quantum-Dynamical Analysis. , 2009, ,		1
46	Fluorescence depolarization in poly[2-methoxy-5-((2-ethylhexyl)oxy)-1,4-phenylenevinylene]: Sites versus eigenstates hopping. Journal of Chemical Physics, 2009, 131, 194905.	1.2	41
47	Supersymmetric Approach to Excited States. Journal of Physical Chemistry A, 2009, 113, 15276-15280.	1.1	14
48	Does interchain stacking morphology contribute to the singlet-triplet interconversion dynamics in polymer heterojunctions?. Chemical Physics, 2009, 357, 159-162.	0.9	3
49	Supersymmetric Quantum Mechanics, Excited State Energies and Wave Functions, and the Rayleigh-Ritz Variational Principle: A Proof of Principle Study. Journal of Physical Chemistry A, 2009, 113, 15257-15264.	1.1	20
50	Conformational Disorder and Ultrafast Exciton Relaxation in PPV-family Conjugated Polymers. Journal of Physical Chemistry B, 2009, 113, 656-667.	1.2	143
51	Hamiltonian approach for wave packet dynamics: Beyond Gaussian wave functions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2215-2218.	0.9	3
52	Quantum Mechanics in Biology: Photoexcitations in DNA. Springer Series in Chemical Physics, 2009, , 103-126.	0.2	1
53	Ultrafast Photophysics of Organic Semiconductor Junctions. Springer Series in Chemical Physics, 2009, , 183-212.	0.2	8
54	Phonon-Driven Exciton Dissociation at Donor-Acceptor Polymer Heterojunctions: Direct versus Bridge-Mediated Vibronic Coupling Pathways. Journal of Physical Chemistry B, 2008, 112, 495-506.	1.2	39

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55	Calculations of the exciton coupling elements between the DNA bases using the transition density cube method. <i>Journal of Chemical Physics</i> , 2008, 128, 035101.	1.2	51
56	Phonon-Driven Ultrafast Exciton Dissociation at Donor-Acceptor Polymer Heterojunctions. <i>Physical Review Letters</i> , 2008, 100, 107402.	2.9	89
57	Theory of non-Condon emission from the interchain exciton in conjugated polymer aggregates. <i>Journal of Chemical Physics</i> , 2007, 126, 191102.	1.2	24
58	Excited state calculations on fluorene-based polymer blends: Effect of stacking orientation and solvation. <i>Journal of Chemical Physics</i> , 2007, 126, 181101.	1.2	14
59	Exciton dissociation at donor-acceptor polymer heterojunctions: Quantum nonadiabatic dynamics and effective-mode analysis. <i>Journal of Chemical Physics</i> , 2007, 126, 021103.	1.2	63
60	Thermodynamics of Atomic Clusters Using Variational Quantum Hydrodynamics. <i>Journal of Physical Chemistry A</i> , 2007, 111, 10345-10352.	1.1	12
61	Nonadiabatic quantum dynamics based on a hierarchical electron-phonon model: Exciton dissociation in semiconducting polymers. <i>Journal of Chemical Physics</i> , 2007, 127, 034706.	1.2	52
62	Frenkel exciton model of ultrafast excited state dynamics in AT DNA double helices. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2007, 190, 328-334.	2.0	42
63	Quantum dynamics of ultrafast photoinduced processes in organic semiconductors: exciton dissociation at polymer heterojunctions. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007, 7, 1130601-1130602.	0.2	2
64	Exciton and Charge-Transfer Dynamics in Polymer Semiconductors. <i>Springer Series in Chemical Physics</i> , 2007, , 57-85.	0.2	5
65	Exactly solvable approximating models for Rabi Hamiltonian dynamics. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 1378.	1.3	10
66	Exciton Regeneration Dynamics in Model Donor-Acceptor Polymer Heterojunctions. <i>Journal of Physical Chemistry B</i> , 2006, 110, 21001-21009.	1.2	18
67	A Self-Consistent Field Quantum Hydrodynamic Approach for Molecular Clusters. <i>Journal of Physical Chemistry A</i> , 2006, 110, 5333-5341.	1.1	11
68	Simplifying organic complexity. <i>Nature Physics</i> , 2006, 2, 591-592.	6.5	7
69	Time-convolutionless master equation for mesoscopic electron-phonon systems. <i>Journal of Chemical Physics</i> , 2006, 125, 104906.	1.2	57
70	Lattice theory of ultrafast excitonic and charge-transfer dynamics in DNA. <i>Journal of Chemical Physics</i> , 2006, 125, 094909.	1.2	49
71	Photoconductivity and current producing states in molecular semiconductors. <i>Journal of Chemical Physics</i> , 2005, 122, 034707.	1.2	9
72	Quantum hydrodynamics: Capturing a reactive scattering resonance. <i>Journal of Chemical Physics</i> , 2005, 123, 054107.	1.2	19

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73	Exciton dissociation dynamics in model donor-acceptor polymer heterojunctions. I. Energetics and spectra. <i>Journal of Chemical Physics</i> , 2005, 122, 214719.	1.2	56
74	Quantum transport in chains with noisy off-diagonal couplings. <i>Journal of Chemical Physics</i> , 2005, 123, 244903.	1.2	8
75	Quantum hydrodynamics: Mixed states, dissipation, and a new hybrid quantum-classical approach. <i>International Journal of Quantum Chemistry</i> , 2004, 100, 1153-1162.	1.0	16
76	Electroluminescence Yield in Donor-Acceptor Copolymers and Diblock Polymers: A Comparative Theoretical Study. <i>Journal of Physical Chemistry B</i> , 2004, 108, 10219-10225.	1.2	30
77	Energy relaxation dynamics and universal scaling laws in organic light-emitting diodes. <i>International Journal of Quantum Chemistry</i> , 2003, 95, 521-531.	1.0	11
78	Excitation Transfer in Aggregated and Linearly Confined Poly(p-phenylene vinylene) Chains. <i>Journal of Physical Chemistry A</i> , 2003, 107, 7092-7100.	1.1	19
79	Estimating Bohm's quantum force using Bayesian statistics. <i>Journal of Chemical Physics</i> , 2003, 119, 6465-6474.	1.2	35
80	Using quantum trajectories and adaptive grids to solve quantum dynamical problems. <i>Computing in Science and Engineering</i> , 2003, 5, 22-30.	1.2	13
81	Polaron-excitons and electron-vibrational band shapes in conjugated polymers. <i>Journal of Chemical Physics</i> , 2003, 118, 4291-4296.	1.2	58
82	Spin-Dependent Electron-Hole Capture Kinetics in Luminescent Conjugated Polymers. <i>Physical Review Letters</i> , 2003, 90, 057402.	2.9	90
83	Quantum initial value representations using approximate Bohmian trajectories. <i>Journal of Chemical Physics</i> , 2003, 119, 1358-1364.	1.2	36
84	Dissipative dynamics of spin-dependent electron-hole capture in conjugated polymers. <i>Journal of Chemical Physics</i> , 2003, 119, 3988-3995.	1.2	33
85	Publisher's Note: Spin-Dependent Electron-Hole Capture Kinetics in Luminescent Conjugated Polymers [Phys. Rev. Lett. PRLTAO0031-900790, 057402 (2003)]. <i>Physical Review Letters</i> , 2003, 90, .	2.9	2
86	Interplay Between the Repulsive and Attractive Interaction and the Spatial Dimensionality of an Excess Electron in a Simple Fluid. <i>Journal of Theoretical and Computational Chemistry</i> , 2003, 02, 129-138.	1.8	0
87	Quantum dissipation in unbounded systems. <i>Physical Review E</i> , 2002, 65, 026143.	0.8	31
88	Quantum Dissipation in the Hydrodynamic Moment Hierarchy: A Semiclassical Truncation Strategy. <i>Journal of Physical Chemistry B</i> , 2002, 106, 7981-7990.	1.2	20
89	Ground-state potential energy curves of phenylenevinylene oligomers. <i>Chemical Physics</i> , 2002, 276, 81-91.	0.9	14
90	Relaxation of quantum hydrodynamic modes. <i>International Journal of Quantum Chemistry</i> , 2002, 89, 313-321.	1.0	33

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91	Polaron recombination dynamics in linear polyenes. <i>Synthetic Metals</i> , 2001, 121, 1635-1636.	2.1	1
92	The Cis \rightarrow Trans Isomerization of 1,2,5,6-Tetrasilacycloocta-3,7-dienes: A Analysis by Mechanistic Probes and Density Functional Theory. <i>Journal of Organic Chemistry</i> , 2001, 66, 5275-5283.	1.7	7
93	Quantum relaxation dynamics using Bohmian trajectories. <i>Journal of Chemical Physics</i> , 2001, 115, 6309-6316.	1.2	44
94	Random growth statistics of long-chain single molecule poly-(p-phenylene vinylene). <i>Journal of Chemical Physics</i> , 2001, 115, 9585-9593.	1.2	21
95	Franck-Condon spectra and electron-libration coupling in para-polyphenyls. <i>Journal of Chemical Physics</i> , 2001, 114, 5863-5870.	1.2	90
96	Quantum molecular dynamics study of polaron recombination in conjugated polymers. <i>Physical Review B</i> , 2000, 62, 11473-11486.	1.1	55
97	A quantum molecular dynamics study of exciton self-trapping in conjugated polymers: Temperature dependence and spectroscopy. <i>Journal of Chemical Physics</i> , 2000, 112, 7684-7692.	1.2	5
98	A dynamic model for exciton self-trapping in conjugated polymers. II. Implementation. <i>Journal of Chemical Physics</i> , 2000, 112, 5410-5419.	1.2	10
99	Quantum wave packet dynamics with trajectories: Implementation with adaptive Lagrangian grids. <i>Journal of Chemical Physics</i> , 2000, 113, 8898-8907.	1.2	111
100	A dynamic model for exciton self-trapping in conjugated polymers. I. Theory. <i>Journal of Chemical Physics</i> , 2000, 112, 5399-5409.	1.2	19
101	Integrating the quantum Hamilton-Jacobi equations by wavefront expansion and phase space analysis. <i>Journal of Chemical Physics</i> , 2000, 113, 8888-8897.	1.2	65
102	Rigorous Franck-Condon absorption and emission spectra of conjugated oligomers from quantum chemistry. <i>Journal of Chemical Physics</i> , 2000, 113, 11372-11381.	1.2	104
103	Quantum tunneling dynamics using hydrodynamic trajectories. <i>Journal of Chemical Physics</i> , 2000, 112, 9703-9710.	1.2	80
104	Car-Parrinello molecular dynamics on excited state surfaces. <i>Journal of Chemical Physics</i> , 1999, 110, 6645-6656.	1.2	16
105	Unexpected Cis,Cis to Trans,Trans Isomerization of a Disilanyl Analogue of 1,5-Cyclooctadiene. <i>Journal of Organic Chemistry</i> , 1998, 63, 8624-8625.	1.7	4
106	Decoherent histories and nonadiabatic quantum molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 1997, 107, 8611-8618.	1.2	81
107	Quantum decoherence: a consistent histories treatment of condensed-phase non-adiabatic quantum molecular dynamics. <i>Computational and Theoretical Chemistry</i> , 1997, 389, 203-216.	1.5	24
108	Quantum decoherence and the isotope effect in condensed phase nonadiabatic molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 1996, 104, 5942-5955.	1.2	331

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109	Quantum decoherence in mixed quantum-classical systems: Nonadiabatic processes. Journal of Chemical Physics, 1995, 103, 8130-8143.	1.2	350
110	Many-body effects and resonances in universal quantum sticking of cold atoms to surfaces. Journal of Chemical Physics, 1995, 102, 2614-2621.	1.2	7
111	Quantum stochastic approach for molecule/surface scattering. II. Adsorption resonances of He atoms on Xe overlayers. Journal of Chemical Physics, 1994, 101, 2446-2454.	1.2	12
112	On the low energy limits of inelastic molecule-surface scattering. Journal of Chemical Physics, 1994, 100, 5314-5322.	1.2	7
113	Quantum stochastic approach for molecule/surface scattering. I. Atom-phonon interactions. Journal of Chemical Physics, 1993, 99, 8229-8237.	1.2	7
114	The microwave spectrum and structure of krypton-phosphorus trifluoride. Journal of Molecular Structure, 1988, 189, 105-110.	1.8	10
115	The chlorine nuclear quadrupole coupling tensor in chlorotrifluoroethylene. Journal of Molecular Spectroscopy, 1988, 132, 369-379.	0.4	20
116	Hyperfine Structure in the Microwave Spectrum of Trifluorophosphine Oxide and Sulfide. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1987, 42, 1415-1417.	0.7	8
117	Quantum Dynamics. , 0, , .		8