

Alexander Eisfeld

List of Publications by Year in descending order

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69
papers

2,665
citations

159585

30
h-index

182427

51
g-index

69
all docs

69
docs citations

69
times ranked

2637
citing authors

#	ARTICLE	IF	CITATIONS
1	The J- and H-bands of organic dye aggregates. <i>Chemical Physics</i> , 2006, 324, 376-384.	1.9	367
2	Photonics meets excitonics: natural and artificial molecular aggregates. <i>Nanophotonics</i> , 2013, 2, 21-38.	6.0	195
3	Hierarchy of Stochastic Pure States for Open Quantum System Dynamics. <i>Physical Review Letters</i> , 2014, 113, 150403.	7.8	145
4	On the alternatives for bath correlators and spectral densities from mixed quantum-classical simulations. <i>Journal of Chemical Physics</i> , 2012, 137, 224103.	3.0	121
5	The J-band of organic dyes: lineshape and coherence length. <i>Chemical Physics</i> , 2002, 281, 61-70.	1.9	96
6	Influence of Complex Exciton-Phonon Coupling on Optical Absorption and Energy Transfer of Quantum Aggregates. <i>Physical Review Letters</i> , 2009, 103, 058301.	7.8	92
7	Absence of Quantum Oscillations and Dependence on Site Energies in Electronic Excitation Transfer in the Fenna-Matthews-Olson Trimer. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 2912-2917.	4.6	83
8	Equivalence of quantum and classical coherence in electronic energy transfer. <i>Physical Review E</i> , 2011, 83, 051911.	2.1	80
9	Quantum simulator of an open quantum system using superconducting qubits: exciton transport in photosynthetic complexes. <i>New Journal of Physics</i> , 2012, 14, 105013.	2.9	79
10	An efficient method to calculate excitation energy transfer in light-harvesting systems: application to the Fenna-Matthews-Olson complex. <i>New Journal of Physics</i> , 2011, 13, 113034.	2.9	75
11	Vibronic energies and spectra of molecular dimers. <i>Journal of Chemical Physics</i> , 2005, 122, 134103.	3.0	74
12	Exchange narrowing of the J band of molecular dye aggregates. <i>Journal of Chemical Physics</i> , 2008, 128, 044505.	3.0	71
13	Newton's Cradle and Entanglement Transport in a Flexible Rydberg Chain. <i>Physical Review Letters</i> , 2010, 105, 053004.	7.8	70
14	Quantum Simulation of Energy Transport with Embedded Rydberg Aggregates. <i>Physical Review Letters</i> , 2015, 114, 123005.	7.8	51
15	Motion of Rydberg atoms induced by resonant dipole-dipole interactions. <i>New Journal of Physics</i> , 2008, 10, 045030.	2.9	49
16	Excitation transport through Rydberg dressing. <i>New Journal of Physics</i> , 2011, 13, 073044.	2.9	49
17	Analytic representations of bath correlation functions for ohmic and superohmic spectral densities using simple poles. <i>Journal of Chemical Physics</i> , 2014, 141, 094101.	3.0	49
18	Theory of the absorption and circular dichroism spectra of helical molecular aggregates. <i>Journal of Chemical Physics</i> , 2007, 126, 104904.	3.0	46

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19	Non-Markovian quantum state diffusion for absorption spectra of molecular aggregates. Journal of Chemical Physics, 2011, 134, 034902.	3.0	46
20	Accounting for intra-molecular vibrational modes in open quantum system description of molecular systems. Journal of Chemical Physics, 2012, 137, 204110.	3.0	45
21	Finite size line broadening and superradiance of optical transitions in two dimensional long-range ordered molecular aggregates. Journal of Chemical Physics, 2013, 139, 044302.	3.0	45
22	Vibronic line shapes of PTCDA oligomers in helium nanodroplets. Journal of Chemical Physics, 2011, 134, 054907.	3.0	44
23	Electronic energy transfer on a vibronically coupled quantum aggregate. Journal of Chemical Physics, 2009, 131, 044909.	3.0	43
24	Non-Markovian Quantum State Diffusion for temperature-dependent linear spectra of light harvesting aggregates. Journal of Chemical Physics, 2015, 142, 034115.	3.0	42
25	Conical Intersections in an Ultracold Gas. Physical Review Letters, 2011, 106, 153002.	7.8	41
26	On-chip non-reciprocal optical devices based on quantum inspired photonic lattices. Applied Physics Letters, 2013, 103, .	3.3	41
27	Hierarchical Equations for Open System Dynamics in Fermionic and Bosonic Environments. Journal of Statistical Physics, 2015, 159, 1408-1423.	1.2	39
28	Classical master equation for excitonic transport under the influence of an environment. Physical Review E, 2012, 85, 046118.	2.1	34
29	Coherent quantum states from classical oscillator amplitudes. Physical Review A, 2012, 85, .	2.5	33
30	Delocalized excitons and interaction effects in extremely dilute thermal ensembles. Physical Chemistry Chemical Physics, 2019, 21, 2276-2282.	2.8	31
31	Superradiance from Two Dimensional Brick-Wall Aggregates of Dye Molecules: The Role of Size and Shape for the Temperature Dependence. Physical Review Letters, 2017, 119, 097402.	7.8	30
32	Adiabatic entanglement transport in Rydberg aggregates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 184011.	1.5	29
33	Open quantum system parameters for light harvesting complexes from molecular dynamics. Physical Chemistry Chemical Physics, 2015, 17, 25629-25641.	2.8	28
34	Emulation of complex open quantum systems using superconducting qubits. Quantum Information Processing, 2017, 16, 1.	2.2	23
35	Quantum dynamics simulation with classical oscillators. Physical Review A, 2013, 88, .	2.5	20
36	Breakup of Rydberg-blockaded atom clouds via dipole-dipole interactions. Physical Review A, 2013, 88, .	2.5	16

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37	Singlet Fission in Weakly Interacting Acene Molecules. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2068-2073.	4.6	16
38	Probing weak dipole-dipole interaction using phase-modulated nonlinear spectroscopy. <i>Physical Review A</i> , 2017, 95, .	2.5	16
39	Non-Perturbative Calculation of Two-Dimensional Spectra Using the Stochastic Hierarchy of Pure States. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4488-4494.	4.6	15
40	SPECTRAL PROPERTIES OF MOLECULAR OLIGOMERS: A NON-MARKOVIAN QUANTUM STATE DIFFUSION APPROACH. <i>International Journal of Modern Physics B</i> , 2010, 24, 5060-5067.	2.0	13
41	Near-Field Spectroscopy of Nanoscale Molecular Aggregates. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6003-6010.	4.6	13
42	Excitonic Wave Function Reconstruction from Near-Field Spectra Using Machine Learning Techniques. <i>Physical Review Letters</i> , 2019, 123, 163202.	7.8	13
43	Extended quantum jump description of vibronic two-dimensional spectroscopy. <i>Journal of Chemical Physics</i> , 2015, 142, 212440.	3.0	12
44	Tunable superradiance in porphyrin chains on insulating surfaces. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 305301.	2.8	11
45	Cooperative lifetime reduction of single acene molecules attached to the surface of neon clusters. <i>Physical Review B</i> , 2015, 92, .	3.2	11
46	Flexible scheme to truncate the hierarchy of pure states. <i>Journal of Chemical Physics</i> , 2018, 148, 134103.	3.0	11
47	Pseudomodes and the corresponding transformation of the temperature-dependent bath correlation function. <i>Physical Review A</i> , 2015, 91, .	2.5	9
48	Non-Markovian dynamics in ultracold Rydberg aggregates. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 134001.	1.5	9
49	Extended Coherently Delocalized States in a Frozen Rydberg Gas. <i>Physical Review Letters</i> , 2020, 124, 193401.	7.8	9
50	Non-Markovian stochastic Schrödinger equation: Matrix-product-state approach to the hierarchy of pure states. <i>Physical Review A</i> , 2022, 105, .	2.5	9
51	Phase directed excitonic transport and its limitations due to environmental influence. <i>Chemical Physics</i> , 2011, 379, 33-38.	1.9	8
52	Closures of the functional expansion hierarchy in the non-Markovian quantum state diffusion approach. <i>Journal of Chemical Physics</i> , 2017, 147, 064113.	3.0	8
53	Charge and energy transfer in large molecular assemblies: Quantum state diffusion with an adaptive basis. <i>Journal of Chemical Physics</i> , 2019, 150, 234115.	3.0	8
54	Tuning Nonradiative Lifetimes via Molecular Aggregation. <i>Journal of Physical Chemistry A</i> , 2017, 121, 5948-5953.	2.5	7

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55	Dye Aggregates in Luminescent Solar Concentrators. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700634.	1.8	6
56	Anomalous strong exchange narrowing in excitonic systems. <i>Journal of Chemical Physics</i> , 2011, 134, 034901.	3.0	5
57	Tailoring Bose-Einstein-condensate environments for a Rydberg impurity. <i>Physical Review A</i> , 2021, 103, .	2.5	5
58	The influence of geometry on the vibronic spectra of quantum aggregates. <i>Journal of Luminescence</i> , 2011, 131, 2555-2564.	3.1	4
59	Gaussian processes for choosing laser parameters for driven, dissipative Rydberg aggregates. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 205003.	1.5	4
60	Simulation of absorption spectra of molecular aggregates: A hierarchy of stochastic pure state approach. <i>Journal of Chemical Physics</i> , 2022, 156, 124109.	3.0	4
61	Hierarchy of equations to calculate the linear spectra of molecular aggregates: Time-dependent and frequency domain formulation. <i>International Journal of Quantum Chemistry</i> , 2017, 117, e25386.	2.0	3
62	Delocalization in two and three-dimensional Rydberg gases. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 124003.	1.5	3
63	Excitation dynamics in polyacene molecules on rare-gas clusters. <i>Journal of Chemical Physics</i> , 2022, 156, 034305.	3.0	3
64	Coherently delocalized states in dipole interacting Rydberg ensembles: The role of internal degeneracies. <i>Physical Review A</i> , 2021, 104, .	2.5	2
65	Imaging the interface of a qubit and its quantum-many-body environment. <i>Physical Review A</i> , 2021, 104, .	2.5	2
66	Gaussian process regression for absorption spectra analysis of molecular dimers. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 275, 121091.	3.9	2
67	Two-dimensional spectroscopy of Rydberg gases. <i>New Journal of Physics</i> , 2020, 22, 073040.	2.9	1
68	Fano resonances in quantum transport with vibrations. <i>Physical Review A</i> , 2021, 104, .	2.5	1
69	Near-field scanning optical microscopy of molecular aggregates: The role of light polarization. <i>Journal of Chemical Physics</i> , 2021, 155, 134701.	3.0	0