Darius Abramavicius

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

140 papers	4,126 citations	34 h-index	60 g-index
164 ext. papers	4,540 ext. citations	5.3 avg, IF	5.62 L-index

#	Paper	IF	Citations
140	Coherent multidimensional optical spectroscopy of excitons in molecular aggregates; quasiparticle versus supermolecule perspectives. *Chemical Reviews*, **2009**, 109, 2350-408	68.1	386
139	Vibronic coherence in oxygenic photosynthesis. *Nature Chemistry*, **2014**, 6, 706-11	17.6	287
138	Many-body approaches for simulating coherent nonlinear spectroscopies of electronic and vibrational excitons. *Chemical Reviews*, **2004**, 104, 2073-98	68.1	234
137	Direct evidence of quantum transport in photosynthetic light-harvesting complexes. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 20908-12	11.5	176
136	Vibrational vs. electronic coherences in 2D spectrum of molecular systems. *Chemical Physics Letters*, **2012**, 545, 40-43	2.5	172
135	Visualizing charge separation in bulk heterojunction organic solar cells. *Nature Communications*, **2013**, 4, 2334	17.4	140
134	Simulation protocols for coherent femtosecond vibrational spectra of peptides. *Journal of Physical Chemistry B*, **2006**, 110, 3362-74	3.4	123
133	**2013**,		123
132	Lindblad equations for strongly coupled populations and coherences in photosynthetic complexes. *Journal of Chemical Physics*, **2009**, 130, 204512	3.9	89
131	Distinctive character of electronic and vibrational coherences in disordered molecular aggregates. *Chemical Physics Letters*, **2013**, 587, 93-98	2.5	86
130	Vibronic phenomena and exciton-vibrational interference in two-dimensional spectra of molecular aggregates. *Journal of Chemical Physics*, **2014**, 140, 034306	3.9	79
129	Coherent multidimensional optical probes for electron correlations and exciton dynamics: from NMR to X-rays. *Accounts of Chemical Research*, **2009**, 42, 553-62	24.3	78
128	Quantum oscillatory exciton migration in photosynthetic reaction centers. *Journal of Chemical Physics*, **2010**, 133, 064510	3.9	74
127	Exciton dynamics in chromophore aggregates with correlated environment fluctuations. *Journal of Chemical Physics*, **2011**, 134, 174504	3.9	61
126	Ultraviolet spectroscopy of protein backbone transitions in aqueous solution: combined QM and MM simulations. *Journal of Physical Chemistry B*, **2010**, 114, 8270-7	3.4	51
125	Molecular vibrations-induced quantum beats in two-dimensional electronic spectroscopy. *Journal of Chemical Physics*, **2012**, 137, 044513	3.9	51
124	Double-quantum resonances and exciton-scattering in coherent 2D spectroscopy of photosynthetic complexes. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 8525-30	11.5	50

123	Unravelling coherent dynamics and energy dissipation in photosynthetic complexes by 2D spectroscopy. *Biophysical Journal*, **2008**, 94, 3613-9	2.9	49
122	Excitons and disorder in molecular nanotubes: a 2D electronic spectroscopy study and first comparison to a microscopic model. *Journal of Physical Chemistry A*, **2010**, 114, 8179-89	2.8	46
121	Mapping energy transfer channels in fucoxanthin-chlorophyll protein complex. *Biochimica Et Biophysica Acta - Bioenergetics*, **2015**, 1847, 241-247	4.6	45
120	Energy-transfer and charge-separation pathways in the reaction center of photosystem II revealed by coherent two-dimensional optical spectroscopy. *Journal of Chemical Physics*, **2010**, 133, 184501	3.9	45
119	Extracting single and two-exciton couplings in photosynthetic complexes by coherent two-dimensional electronic spectra. *Chemical Physics*, **2008**, 357, 79-84	2.3	45
118	Role of coherent vibrations in energy transfer and conversion in photosynthetic pigment-protein complexes. *Photosynthesis Research*, **2016**, 127, 33-47	3.7	42
117	Tight-binding model of the photosystem II reaction center: application to two-dimensional electronic spectroscopy. *New Journal of Physics*, **2013**, 15, 075013	2.9	42
116	Non-Markovian effects in time-resolved fluorescence spectrum of molecular aggregates: Tracing polaron formation. *Physical Review B*, **2011**, 84,	3.3	42
115	Excitonic couplings and interband energy transfer in a double-wall molecular aggregate imaged by coherent two-dimensional electronic spectroscopy. *Journal of Chemical Physics*, **2009**, 131, 054510	3.9	42
114	Transport and correlated fluctuations in the nonlinear optical response of excitons. *Europhysics Letters*, **2007**, 80, 17005	1.6	42
113	Coherent third-order spectroscopic probes of molecular chirality. *Journal of Chemical Physics*, **2005**, 122, 134305	3.9	41
112	Static and Dynamic Disorder in Bacterial Light-Harvesting Complex LH2: A 2DES Simulation Study. *Journal of Physical Chemistry B*, **2014**, 118, 7533-7540	3.4	40
111	Discrimination of Diverse Coherences Allows Identification of Electronic Transitions of a Molecular Nanoring. *Journal of Physical Chemistry Letters*, **2017**, 8, 2344-2349	6.4	36
110	A Unified Picture of S* in Carotenoids. *Journal of Physical Chemistry Letters*, **2016**, 7, 3347-52	6.4	36
109	Tracing exciton dynamics in molecular nanotubes with 2D electronic spectroscopy. *Chemical Physics Letters*, **2009**, 469, 130-134	2.5	34
108	Peptide Secondary Structure Determination by Three-Pulse Coherent Vibrational Spectroscopies: A Simulation Study. *Journal of Physical Chemistry B*, **2004**, 108, 18034-18045	3.4	34
107	Dissecting coherent vibrational spectra of small proteins into secondary structural elements by sensitivity analysis. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 7443-8	11.5	34
106	Chirality-induced signals in coherent multidimensional spectroscopy of excitons. *Journal of Chemical Physics*, **2006**, 124, 034113	3.9	33

105	Role of coherence and delocalization in photo-induced electron transfer at organic interfaces. *Scientific Reports*, **2016**, 6, 32914	4.9	31
104	Simulation study of chiral two-dimensional ultraviolet spectroscopy of the protein backbone. *Journal of the American Chemical Society*, **2010**, 132, 7769-75	16.4	31
103	Disentangling multidimensional femtosecond spectra of excitons by pulse shaping with coherent control. *Journal of Chemical Physics*, **2004**, 120, 8373-8	3.9	29
102	Ultrafast Energy Transfer from Chlorophyll c2 to Chlorophyll a in Fucoxanthin□Chlorophyll Protein Complex. *Journal of Physical Chemistry Letters*, **2013**, 4, 3590-3595	6.4	28
101	Manipulation of two-dimensional spectra of excitonically coupled molecules by narrow-bandwidth laser pulses. *Chemical Physics*, **2010**, 372, 22-32	2.3	28
100	Two-dimensional vibrational optical probes for peptide fast folding investigation. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 18934-8	11.5	28
99	Sum-over-states versus quasiparticle pictures of coherent correlation spectroscopy of excitons in semiconductors: Femtosecond analogs of multidimensional NMR. *Physical Review B*, **2007**, 75,	3.3	28
98	Vibronic energy relaxation approach highlighting deactivation pathways in carotenoids. *Physical Chemistry Chemical Physics*, **2015**, 17, 19491-9	3.6	27
97	Probing electron correlations in molecules by two-dimensional coherent optical spectroscopy. *Journal of the American Chemical Society*, **2008**, 130, 3509-15	16.4	27
96	Two Dimensional Electronic Correlation Spectroscopy of the npi* and pipi* Protein Backbone Transitions: A Simulation Study. *Chemical Physics*, **2007**, 341, 29-36	2.3	27
95	Simulation of two-dimensional infrared spectroscopy of amyloid fibrils. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 14233-6	11.5	27
94	Manipulating multidimensional electronic spectra of excitons by polarization pulse shaping. *Journal of Chemical Physics*, **2007**, 126, 044508	3.9	26
93	Absorption lineshapes of molecular aggregates revisited. *Journal of Chemical Physics*, **2015**, 142, 154107	3.9	25
92	Simulations of the two-dimensional electronic spectroscopy of the photosystem II reaction center. *Journal of Physical Chemistry A*, **2013**, 117, 34-41	2.8	25
91	Excitation dynamics and relaxation in a molecular heterodimer. *Chemical Physics*, **2012**, 404, 94-102	2.3	25
90	Advancing Hierarchical Equations of Motion for Efficient Evaluation of Coherent Two-dimensional Spectroscopy. *Chinese Journal of Chemical Physics*, **2011**, 24, 497-506	0.9	25
89	Coherence and population dynamics of chlorophyll excitations in FCP complex: Two-dimensional spectroscopy study. *Journal of Chemical Physics*, **2015**, 142, 212414	3.9	24
88	Carrier motion in as-spun and annealed P3HT:PCBM blends revealed by ultrafast optical electric field probing and Monte Carlo simulations. *Physical Chemistry Chemical Physics*, **2014**, 16, 2686-92	3.6	24

87	Insight into the structure of photosynthetic LH2 aggregate from spectroscopy simulations. *Journal of Physical Chemistry B*, **2012**, 116, 7803-14	3.4	23
86	Vibronic models for nonlinear spectroscopy simulations. *Photosynthesis Research*, **2014**, 121, 95-106	3.7	22
85	Weak exciton scattering in molecular nanotubes revealed by double-quantum two-dimensional electronic spectroscopy. *Physical Review Letters*, **2012**, 108, 067401	7.4	22
84	Coherent control of pump-probe signals of helical structures by adaptive pulse polarizations. *Journal of Chemical Physics*, **2006**, 124, 034104	3.9	22
83	Polaronic effects at finite temperatures in the B850 ring of the LH2 complex. *Physical Chemistry Chemical Physics*, **2016**, 18, 7966-77	3.6	21
82	Exciton delocalization and transport in photosystem I of cyanobacteria Synechococcus elongates: simulation study of coherent two-dimensional optical signals. *Journal of Physical Chemistry B*, **2009**, 113, 6097-108	3.4	21
81	Ultrafast energy transfer within the photosystem II core complex. *Physical Chemistry Chemical Physics*, **2017**, 19, 15356-15367	3.6	20
80	Dynamics of exciton-polaron transition in molecular assemblies: the variational approach. *Journal of Chemical Physics*, **2014**, 140, 244108	3.9	20
79	Exciton dynamics in ring-like photosynthetic light-harvesting complexes: a hopping model. *Physical Chemistry Chemical Physics*, **2004**, 6, 3097	3.6	20
78	The full dynamics of energy relaxation in large organic molecules: from photo-excitation to solvent heating. *Chemical Science*, **2019**, 10, 4792-4804	9.4	19
77	Absorption and Fluorescence Lineshape Theory for Polynomial Potentials. *Journal of Chemical Theory and Computation*, **2016**, 12, 5979-5989	6.4	19
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73	Excitation energy transfer and quenching in a heterodimer: applications to the carotenoid-phthalocyanine dyads. *Journal of Physical Chemistry B*, **2013**, 117, 11031-41	3.4	18
72	Simulation of two-dimensional ultraviolet spectroscopy of amyloid fibrils. *Journal of Physical Chemistry B*, **2010**, 114, 12150-6	3.4	18
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70	Time-domain chirally-sensitive three-pulse coherent probes of vibrational excitons in proteins. *Chemical Physics*, **2005**, 318, 50-70	2.3	17

69	Excitation transfer pathways in excitonic aggregates revealed by the stochastic Schrödinger equation. *Journal of Chemical Physics*, **2014**, 140, 065103	3.9	14
68	Two-dimensional electronic spectroscopy of anharmonic molecular potentials. *Physical Chemistry Chemical Physics*, **2018**, 20, 1642-1652	3.6	13
67	Excitons in the LH3 complexes from purple bacteria. *Journal of Physical Chemistry B*, **2013**, 117, 11058-68	3.4	13
66	Exchange narrowing and exciton delocalization in disordered J aggregates: simulated peak shapes in the two dimensional spectra. *Journal of Chemical Physics*, **2013**, 139, 034313	3.9	13
65	Geminate charge pair recombination in sensitized photoconducting polymer. *Journal of Chemical Physics*, **1999**, 111, 5611-5616	3.9	13
64	Two-dimensional optical spectroscopy of molecular aggregates. *Lithuanian Journal of Physics*, **2010**, 50, 267-303	1.1	13
63	Spectroscopic properties of photosystem II reaction center revisited. *Journal of Chemical Physics*, **2017**, 147, 115102	3.9	12
62	Band Structure of the Rhodobacter sphaeroides Photosynthetic Reaction Center from Low-Temperature Absorption and Hole-Burned Spectra. *Journal of Physical Chemistry B*, **2016**, 120, 5601-16	3.4	12
61	Interplay of slow bath fluctuations and energy transfer in 2D spectroscopy of the FMO light-harvesting complex: benchmarking of simulation protocols. *Physical Chemistry Chemical Physics*, **2010**, 12, 108-14	3.6	12
60	Chirality-based signatures of local protein environments in two-dimensional optical spectroscopy of two species photosynthetic complexes of green sulfur bacteria: simulation study. *Biophysical Journal*, **2008**, 95, 4896-907	2.9	11
59	Molecular Twisting and Relaxation in the Excited State of Triarylpyrylium Cations. *Journal of Physical Chemistry A*, **2002**, 106, 8864-8869	2.8	11
58	Manifestation of protein conformations in the B850 absorption band of light-harvesting complex LH2. *Chemical Physics*, **2013**, 423, 9-14	2.3	9
57	Coherent control protocol for separating energy-transfer pathways in photosynthetic complexes by chiral multidimensional signals. *Journal of Physical Chemistry A*, **2011**, 115, 4624-9	2.8	9
56	Acceleration of charge separation by oscillations of the environment polarization. *Chemical Physics Letters*, **2003**, 368, 480-485	2.5	9
55	Origin of non-Gaussian site energy disorder in molecular aggregates. *Chemical Physics Letters*, **2017**, 674, 120-124	2.5	8
54	Multistep Photoluminescence Decay Reveals Dissociation of Geminate Charge Pairs in Organolead Trihalide Perovskites. *Advanced Energy Materials*, **2017**, 7, 1700405	21.8	8
53	Temporal dynamics of excitonic states with nonlinear electron-vibrational coupling. *Journal of Chemical Physics*, **2017**, 147, 074114	3.9	8
52	Benchmarking the stochastic time-dependent variational approach for excitation dynamics in molecular aggregates. *Chemical Physics*, **2016**, 481, 108-116	2.3	8

51	Exciton-exciton scattering in a one-dimensional J aggregate. *Europhysics Letters*, **2013**, 101, 57007	1.6	7
50	Quartic Interband Exciton Couplings in Pump-Probe Spectroscopy of Light Harvesting Complexes. *Journal of Physical Chemistry B*, **2004**, 108, 10295-10300	3.4	7
49	Role of Bath Fluctuations in the Double-Excitation Manifold in Shaping the 2DES of Bacterial Reaction Centers at Low Temperature. *Journal of Physical Chemistry B*, **2018**, 122, 1348-1366	3.4	7
48	Modeling of ultrafast time-resolved fluorescence applied to a weakly coupled chromophore pair. *Journal of Chemical Physics*, **2015**, 143, 074101	3.9	6
47	Disorder-Induced Quantum Beats in Two-Dimensional Spectra of Excitonically Coupled Molecules. *Journal of Physical Chemistry Letters*, **2016**, 7, 277-82	6.4	6
46	Tracing feed-back driven exciton dynamics in molecular aggregates. *Physical Chemistry Chemical Physics*, **2018**, 20, 21225-21240	3.6	6
45	Mutation-Induced Changes in the Protein Environment and Site Energies in the (M)L214G Mutant of the Rhodobacter sphaeroides Bacterial Reaction Center. *Journal of Physical Chemistry B*, **2016**, 120, 7859-71	3.4	6
44	Interplay of Exciton Coherence and Dissipation in Molecular Aggregates. *Semiconductors and Semimetals*, **2011**, 3-46	0.6	5
43	Charge separation and geminate recombination in sensitized photoconducting polymers. *Synthetic Metals*, **2000**, 109, 39-42	3.6	5
42	Vibrational damping effects on electronic energy relaxation in molecular aggregates. *Chemical Physics*, **2018**, 515, 193-202	2.3	4
41	Many-body effects in two-dimensional optical spectra of semiconductor quantum dot pairs; time-dependent Hartree-Fock approximation and beyond. *Journal of Physics Condensed Matter*, **2008**, 20, 045206	1.8	4
40	Geminate pair recombination in molecular systems with correlated disorder. *Physical Review B*, **2003**, 68,	3.3	4
39	Excitonic structure and charge separation in the heliobacterial reaction center probed by multispectral multidimensional spectroscopy. *Nature Communications*, **2021**, 12, 2801	17.4	4
38	Effects of tunable excitation in carotenoids explained by the vibrational energy relaxation approach. *Photosynthesis Research*, **2018**, 135, 55-64	3.7	4
37	Two-dimensional electronic Stark spectroscopy of a photosynthetic dimer. *Journal of Chemical Physics*, **2020**, 153, 144203	3.9	3
36	Signatures of three-exciton correlations in the coherent and incoherent nonlinear optical response of photosynthetic complexes. *New Journal of Physics*, **2010**, 12, 065046	2.9	3
35	Geminate Pair Recombination in Sensitized Polymers (Monte-Carlo simulations). *Molecular Crystals and Liquid Crystals*, **1998**, 324, 275-283		3
34	Characterization of thymine microcrystals by CARS and SHG microscopy. *Scientific Reports*, **2020**, 10, 17027	4.9	3

33	The Role of the Initial Charge Separation in the Geminate Pair Recombination in Disordered Molecular Systems. *Molecular Crystals and Liquid Crystals*, **2001**, 355, 127-148		2
32	Modeling irreversible molecular internal conversion using the time-dependent variational approach with sD ansatz. *Physical Chemistry Chemical Physics*, **2020**, 22, 8952-8962	3.6	2
31	Unusual temperature dependence of the fluorescence decay in heterostructured stilbene. *Physical Chemistry Chemical Physics*, **2021**, 23, 3447-3454	3.6	2
30	Long memory effects in excitonic systems dynamics: Spectral relations and excitation transport. *Journal of Chemical Physics*, **2020**, 152, 244114	3.9	1
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28	Coherent electronic and vibrational dynamics in the electronic 2D spectra of molecular dimers **2013** ,		1
27	Excitation dynamics of two level quantum systems coupled to Morse vibrations. *Lithuanian Journal of Physics*, **2019**, 58,	1.1	1
26	Double-Quantum Coherence Spectroscopy of Chromophore Aggregates. *Springer Series in Chemical Physics*, **2009**, 412-414	0.3	1
25	Coherent Control of Chirality-Induced 2D Electronic Spectroscopy Signals. *Springer Series in Chemical Physics*, **2009**, 550-552	0.3	1
24	Artificial Photosynthesis: Theoretical Background. *Advances in Botanical Research*, **2016**, 79, 129-167	2.2	1
23	Second harmonic generation theory for a helical macromolecule with high sensitivity to structural disorder. *Physical Chemistry Chemical Physics*, **2021**, 23, 20201-20217	3.6	1
22	An Oscillator Coupled to a Harmonic Bath **2014**, 189-208		
21	Nonclassical energy transfer in photosynthetic FMO complex. *EPJ Web of Conferences*, **2013**, 41, 08014	0.3	
20	Charge separation in molecular compounds from the charge transfer states: density matrix approach **2003**, 5122, 244		
19	Manipulating Multidimensional Nonlinear Spectra of Excitons by Coherent Control with Polarization Pulse Shaping. *Springer Series in Chemical Physics*, **2007**, 383-385	0.3	
18	Coherent Infrared Pulse Sequences for Probing Molecular Chirality. *Springer Series in Chemical Physics*, **2007**, 252-254	0.3	
17	Dissecting Exciton Dynamics Pathways in Electronic Multidimensional Spectroscopy by Pulse Polarizations. *Springer Series in Chemical Physics*, **2009**, 601-603	0.3	
16	Phase relationships of spectral oscillations in 2D molecular spectroscopy. *EPJ Web of Conferences*, **2013**, 41, 05021	0.3	

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1 Vibration-mediated energy transport in bacterial reaction center: Simulation study. *Journal of Chemical Physics*, **2021**, 154, 214115 3.9