

Donatas Zigmantas

List of Publications by Year in descending order

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70
papers

6,360
citations

101496

36
h-index

95218

68
g-index

72
all docs

72
docs citations

72
times ranked

4735
citing authors

#	ARTICLE	IF	CITATIONS
1	Carotenoid Cation Formation and the Regulation of Photosynthetic Light Harvesting. <i>Science</i> , 2005, 307, 433-436.	6.0	723
2	Quantum coherence in photosynthesis for efficient solar-energy conversion. <i>Nature Physics</i> , 2014, 10, 676-682.	6.5	481
3	Real-time observation of multiexcitonic states in ultrafast singlet fission using coherent 2D electronic spectroscopy. <i>Nature Chemistry</i> , 2016, 8, 16-23.	6.6	308
4	Direct observation of the (forbidden) S1 state in carotenoids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 4914-4917.	3.3	275
5	Quantum biology revisited. <i>Science Advances</i> , 2020, 6, eaaz4888.	4.7	266
6	Photoluminescence quenching at apolythiophene/C60heterojunction. <i>Physical Review B</i> , 2000, 61, 12957-12963.	1.1	225
7	Effect of a conjugated carbonyl group on the photophysical properties of carotenoids. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 3009-3016.	1.3	215
8	Vibrational vs. electronic coherences in 2D spectrum of molecular systems. <i>Chemical Physics Letters</i> , 2012, 545, 40-43.	1.2	202
9	Belt-Shaped π -Systems: Relating Geometry to Electronic Structure in a Six-Porphyrin Nanoring. <i>Journal of the American Chemical Society</i> , 2011, 133, 17262-17273.	6.6	201
10	Two-dimensional electronic spectroscopy of the B800-B820 light-harvesting complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 12672-12677.	3.3	197
11	Carotenoid to chlorophyll energy transfer in the peridinin-chlorophyll-a-protein complex involves an intramolecular charge transfer state. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 16760-16765.	3.3	193
12	Zeaxanthin Radical Cation Formation in Minor Light-harvesting Complexes of Higher Plant Antenna. <i>Journal of Biological Chemistry</i> , 2008, 283, 3550-3558.	1.6	193
13	Identification and characterization of diverse coherences in the Fenna-Matthews-Olson complex. <i>Nature Chemistry</i> , 2018, 10, 780-786.	6.6	177
14	Spectroscopic and Dynamic Properties of the Peridinin Lowest Singlet Excited States. <i>Journal of Physical Chemistry A</i> , 2001, 105, 10296-10306.	1.1	158
15	Carotenoid S1 State in a Recombinant Light-Harvesting Complex of Photosystem II. <i>Biochemistry</i> , 2002, 41, 439-450.	1.2	139
16	In situ mapping of the energy flow through the entire photosynthetic apparatus. <i>Nature Chemistry</i> , 2016, 8, 705-710.	6.6	139
17	Dynamics of Excited States of the Carotenoid Peridinin in Polar Solvents: Dependence on Excitation Wavelength, Viscosity, and Temperature. <i>Journal of Physical Chemistry B</i> , 2003, 107, 5339-5348.	1.2	138
18	Dynamics of vibrational relaxation in the S1 state of carotenoids having 11 conjugated C=C bonds. <i>Chemical Physics Letters</i> , 2002, 355, 465-470.	1.2	135

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19	Vibronic origin of long-lived coherence in an artificial molecular light harvester. <i>Nature Communications</i> , 2015, 6, 7755.	5.8	129
20	Two mechanisms for dissipation of excess light in monomeric and trimeric light-harvesting complexes. <i>Nature Plants</i> , 2017, 3, 17033.	4.7	121
21	Coherent Picosecond Exciton Dynamics in a Photosynthetic Reaction Center. <i>Journal of the American Chemical Society</i> , 2012, 134, 16484-16487.	6.6	112
22	Near-Infrared Time-Resolved Study of the S1 State Dynamics of the Carotenoid Spheroidene. <i>Journal of Physical Chemistry B</i> , 2001, 105, 1072-1080.	1.2	107
23	Two-Dimensional Electronic Spectroscopy Reveals Ultrafast Energy Diffusion in Chlorosomes. <i>Journal of the American Chemical Society</i> , 2012, 134, 11611-11617.	6.6	101
24	Two-dimensional electronic spectroscopy with double modulation lock-in detection: enhancement of sensitivity and noise resistance. <i>Optics Express</i> , 2011, 19, 13126.	1.7	99
25	Exciton Structure and Energy Transfer in the Fenna-Matthews-Olson Complex. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1653-1660.	2.1	97
26	Distinctive character of electronic and vibrational coherences in disordered molecular aggregates. <i>Chemical Physics Letters</i> , 2013, 587, 93-98.	1.2	96
27	The Carotenoid S1 State in LH2 Complexes from Purple Bacteria <i>Rhodobacter sphaeroides</i> and <i>Rhodospseudomonas acidophila</i> : S1 Energies, Dynamics, and Carotenoid Radical Formation. <i>Journal of Physical Chemistry B</i> , 2002, 106, 11016-11025.	1.2	93
28	Energy Transfer in the Major Intrinsic Light-Harvesting Complex from <i>Amphidinium carterae</i> . <i>Biochemistry</i> , 2006, 45, 8516-8526.	1.2	76
29	Quantum coherence as a witness of vibronically hot energy transfer in bacterial reaction center. <i>Science Advances</i> , 2017, 3, e1603141.	4.7	60
30	Mapping energy transfer channels in fucoxanthin-chlorophyll protein complex. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2015, 1847, 241-247.	0.5	59
31	A Near-Infrared Transient Absorption Study of the Excited-State Dynamics of the Carotenoid Spirilloxanthin in Solution and in the LH1 Complex of <i>Rhodospirillum rubrum</i> . <i>Journal of Physical Chemistry B</i> , 2003, 107, 11216-11223.	1.2	52
32	The nature of coherences in the B820 bacteriochlorophyll dimer revealed by two-dimensional electronic spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 9930.	1.3	50
33	Ultrafast coherence transfer in DNA-templated silver nanoclusters. <i>Nature Communications</i> , 2017, 8, 15577.	5.8	45
34	Discrimination of Diverse Coherences Allows Identification of Electronic Transitions of a Molecular Nanoring. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2344-2349.	2.1	43
35	Optical microscopy in photosynthesis. <i>Photosynthesis Research</i> , 2009, 102, 111-141.	1.6	38
36	Luminescence quenching by inter-chain aggregates in substituted polythiophenes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001, 144, 3-12.	2.0	36

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37	Hot electron and hole dynamics in thiol-capped CdSe quantum dots revealed by 2D electronic spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26199-26204.	1.3	35
38	2D Spectroscopy Study of Water-Soluble Chlorophyll-Binding Protein from <i>Lepidium virginicum</i> . <i>Journal of Physical Chemistry B</i> , 2014, 118, 3524-3531.	1.2	34
39	Inter-pigment interactions in the peridinin chlorophyll protein studied by global and target analysis of time resolved absorption spectra. <i>Chemical Physics</i> , 2009, 357, 70-78.	0.9	33
40	Ultrafast Energy Transfer from Chlorophyll 2 to Chlorophyll a in Fucoxanthin-Chlorophyll Protein Complex. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3590-3595.	2.1	33
41	Ultrafast light-induced charge pair formation dynamics in poly[3-(2-methoxy-5-octylphenyl)thiophene]. <i>Physical Review B</i> , 2004, 70, .	1.1	32
42	Coherence and population dynamics of chlorophyll excitations in FCP complex: Two-dimensional spectroscopy study. <i>Journal of Chemical Physics</i> , 2015, 142, 212414.	1.2	30
43	Beatings in electronic 2D spectroscopy suggest another role of vibrations in photosynthetic light harvesting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1148-1149.	3.3	29
44	Unraveling the nature of coherent beatings in chlorosomes. <i>Journal of Chemical Physics</i> , 2014, 140, 115103.	1.2	29
45	Origin of the Bathochromic Shift of Astaxanthin in Lobster Protein: 2D Electronic Spectroscopy Investigation of β -Crustacyanin. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11209-11219.	1.2	28
46	Understanding radiative transitions and relaxation pathways in plexcitons. <i>CheM</i> , 2021, 7, 1092-1107.	5.8	28
47	Spatially and spectrally resolved quantum path interference with chirped driving pulses. <i>New Journal of Physics</i> , 2016, 18, 123032.	1.2	27
48	2D Electronic Spectroscopy Reveals Excitonic Structure in the Baseplate of a Chlorosome. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1743-1747.	2.1	25
49	Potential pitfalls of the early-time dynamics in two-dimensional electronic spectroscopy. <i>Journal of Chemical Physics</i> , 2019, 151, 024201.	1.2	25
50	Kinetic Modeling of Charge-Transfer Quenching in the CP29 Minor Complex. <i>Journal of Physical Chemistry B</i> , 2008, 112, 13418-13423.	1.2	24
51	Unveiling the excited state energy transfer pathways in peridinin-chlorophyll a - protein by ultrafast multi-pulse transient absorption spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2017, 1858, 297-307.	0.5	21
52	Detector and dispersive delay calibration issues in broadband 2D electronic spectroscopy. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 1770.	0.9	20
53	Revealing vibronic coupling in chlorophyll $c1$ by polarization-controlled 2D electronic spectroscopy. <i>Chemical Physics</i> , 2020, 530, 110643.	0.9	19
54	Unraveling the Ultrafast Hot Electron Dynamics in Semiconductor Nanowires. <i>ACS Nano</i> , 2021, 15, 1133-1144.	7.3	18

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55	Transfer of vibrational coherence through incoherent energy transfer process in Förster limit. Canadian Journal of Chemistry, 2014, 92, 135-143.	0.6	13
56	Origin of the Two Bands in the B800 Ring and Their Involvement in the Energy Transfer Network of <i>Allochrocatium vinosum</i> . Journal of Physical Chemistry Letters, 2018, 9, 1340-1345.	2.1	13
57	Excited States and Their Dynamics in CdSe Quantum Dots Studied by Two-Color 2D Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 1266-1271.	2.1	11
58	Intraband dynamics and exciton trapping in the LH2 complex of Rhodospseudomonas acidophila. Journal of Chemical Physics, 2021, 154, 045102.	1.2	9
59	Dynamic band-shift signal in two-dimensional electronic spectroscopy: A case of bacterial reaction center. Journal of Chemical Physics, 2021, 154, 115102.	1.2	7
60	Generation and compression of 10-fs deep ultraviolet pulses at high repetition rate using standard optics. Optics Express, 2021, 29, 25593.	1.7	7
61	Correction of Fabry-Pérot interference effects in phase and amplitude pulse shapers based on liquid crystal spatial light modulators. Optics Express, 2019, 27, 22970.	1.7	6
62	Fully symmetric dispersionless stable transmission-grating Michelson interferometer. Optics Express, 2020, 28, 37752.	1.7	6
63	Beating signals in CdSe quantum dots measured by low-temperature 2D spectroscopy. Journal of Chemical Physics, 2022, 157, .	1.2	4
64	Picosecond z-scan measurements of the two-photon absorption in beta-carotene solution over the 590-790 nm wavelength range. , 2005, , .		3
65	Nonlinear Femtosecond Optical Spectroscopy Techniques in Photosynthesis. Advances in Photosynthesis and Respiration, 2008, , 201-222.	1.0	3
66	Compressive imaging of transient absorption dynamics on the femtosecond timescale. Optics Express, 2019, 27, 10234.	1.7	3
67	Vibrational Coherence Reveals the Role of Dark Multiexciton States in Ultrafast Singlet Exciton Fission. , 2014, , .		2
68	Double-crossed polarization transient grating for distinction and characterization of coherences. Optics Express, 2018, 26, 32900.	1.7	2
69	Vibrational Coherence Reveals the Role of Dark Multiexciton States in Ultrafast Singlet Exciton Fission. Springer Proceedings in Physics, 2015, , 226-229.	0.1	1
70	Phase relationships of spectral oscillations in 2D molecular spectroscopy. EPJ Web of Conferences, 2013, 41, 05021.	0.1	0