Devens Gust

List of Publications by Year
in descending order

92 papers	10,778 citations	50170 46 h-index	45213 90 g-index
95 all docs	95 docs citations	95 times ranked	9049 citing authors

#	Article	IF	Citations
1	Dual Singlet Excited-State Quenching Mechanisms in an Artificial Caroteno-Phthalocyanine Light Harvesting Antenna. ACS Physical Chemistry Au, 2022, 2, 59-67.	1.9	3
2	Advanced Nonvolatile Organic Optical Memory Using Self-Assembled Monolayers of Porphyrinâ€“Fullerene Dyads. ACS Applied Materials & Interfaces, 2022, 14, 15461-15467.	4.0	15
3	Electronâ€“Nuclear Dynamics Accompanying Proton-Coupled Electron Transfer. Journal of the American Chemical Society, 2021, 143, 3104-3112.	6.6	21
4	Proton-coupled electron transfer across benzimidazole bridges in bioinspired proton wires. Chemical Science, 2020, 11, 3820-3828.	3.7	23
5	Ultrafast Dynamics of Nonrigid Zinc-Porphyrin Arrays Mimicking the Photosynthetic â€œSpecial Pairâ€. Journal of Physical Chemistry Letters, 2020, 11, 3443-3450.	2.1	11
6	Proton-Coupled Electron Transfer Drives Long-Range Proton Translocation in Bioinspired Systems. Journal of the American Chemical Society, 2019, 141, 14057-14061.	6.6	33
7	Chemical compass behaviour at microtesla magnetic fields strengthens the radical pair hypothesis of avian magnetoreception. Nature Communications, 2019, 10, 3707.	5.8	38
8	Design and synthesis of benzimidazole phenol-porphyrin dyads for the study of bioinspired photoinduced proton-coupled electron transfer. Journal of Porphyrins and Phthalocyanines, 2019, 23, 1336-1345.	0.4	7
9	Proton-Coupled Electron Transfer in Artificial Photosynthetic Systems. Accounts of Chemical Research, 2018, 51, 445-453.	7.6	114
10	Controlling Proton-Coupled Electron Transfer in Bioinspired Artificial Photosynthetic Relays. Journal of the American Chemical Society, 2018, 140, 15450-15460.	6.6	52
11	Concerted One-Electron Two-Proton Transfer Processes in Models Inspired by the Tyr-His Couple of Photosystem II. ACS Central Science, 2017, 3, 372-380.	5.3	80
12	Artificial photosynthetic antennas and reaction centers. Comptes Rendus Chimie, 2017, 20, 296-313.	0.2	41
13	Local Intermolecular Order Controls Photoinduced Charge Separation at Donor/Acceptor Interfaces in Organic Semiconductors. Advanced Energy Materials, 2016, 6, 1502176.	10.2	31
14	Supramolecular photochemistry applied to artificial photosynthesis and molecular logic devices. Faraday Discussions, 2015, 185, 9-35.	1.6	18
15	Kinetic isotope effect of proton-coupled electron transfer in a hydrogen bonded phenolâ€”pyrrolidino[60]fullerene. Photochemical and Photobiological Sciences, 2015, 14, 2147-2150.	1.6	7
16	Metal-free organic sensitizers for use in water-splitting dye-sensitized photoelectrochemical cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1681-1686.	3.3	133
17	Building and testing correlations for the estimation of oneâ€electron reduction potentials of a diverse set of organic molecules. Journal of Physical Organic Chemistry, 2015, 28, 320-328.	0.9	24
18	Design, synthesis and photophysical studies of phenylethynyl-bridged phthalocyanine-fullerene dyads. Journal of Porphyrins and Phthalocyanines, 2015, 19, 934-945.	0.4	6

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19	Spectroscopic Analysis of a Biomimetic Model of Tyr_Z Function in PSII. Journal of Physical Chemistry B, 2015, 119, 12156-12163.	1.2	10
20	Multiporphyrin Arrays with Ï€â€"Ï€ Interchromophore Interactions. Journal of the American Chemical Society, 2015, 137, 245-258.	6.6	32
21	A bioinspired redox relay that mimics radical interactions of the Tyrâ€"His pairs of photosystem II. Nature Chemistry, 2014, 6, 423-428.	6.6	133
22	Carotenoids as electron or excited-state energy donors in artificial photosynthesis: an ultrafast investigation of a carotenoporphyrin and a carotenofullerene dyad. Physical Chemistry Chemical Physics, 2013, 15, 4775.	1.3	31
23	Selective oxidative synthesis of <i>meso</i>-beta fused porphyrin dimers. Journal of Porphyrins and Phthalocyanines, 2013, 17, 247-251.	0.4	15
24	Spin-selective recombination reactions of radical pairs: Experimental test of validity of reaction operators. Journal of Chemical Physics, 2013, 139, 234309.	1.2	18
25	New light-harvesting roles of hot and forbidden carotenoid states in artificial photosynthetic constructs. Chemical Science, 2012, 3, 2052.	3.7	21
26	Data and signal processing using photochromic molecules. Chemical Communications, 2012, 48, 1947-1957.	2.2	175
27	Porphyrins as ITO photosensitizers: substituents control photo-induced electron transfer direction. Journal of Materials Chemistry, 2012, 22, 20334.	6.7	19
28	Improving the efficiency of water splitting in dye-sensitized solar cells by using a biomimetic electron transfer mediator. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15612-15616.	3.3	280
29	Mimicking the electron transfer chain in photosystem II with a molecular triad thermodynamically capable of water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15578-15583.	3.3	110
30	Realizing artificial photosynthesis. Faraday Discussions, 2012, 155, 9-26.	1.6	194
31	On the role of excitonic interactions in carotenoidâ€"phthalocyanine dyads and implications for photosynthetic regulation. Photosynthesis Research, 2012, 111, 237-243.	1.6	22
32	A porphyrin-stabilized iridium oxide water oxidation catalyst. Canadian Journal of Chemistry, 2011, 89, 152-157.	0.6	18
33	Carotenoid Photoprotection in Artificial Photosynthetic Antennas. Journal of the American Chemical Society, 2011, 133, 7007-7015.	6.6	70
34	Conformationally Constrained Macrocyclic Diporphyrinâ^'Fullerene Artificial Photosynthetic Reaction Center. Journal of the American Chemical Society, 2011, 133, 2944-2954.	6.6	79
35	Optical Modulation of Molecular Conductance. Nano Letters, 2011, 11, 2709-2714.	4.5	78
36	Effects of Protonation State on a Tyrosineâ^'Histidine Bioinspired Redox Mediatorâ€. Journal of Physical Chemistry B, 2010, 114, 14450-14457.	1.2	61

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37	Solar Fuels via Artificial Photosynthesis. Accounts of Chemical Research, 2009, 42, 1890-1898.	7.6	1,845
38	A Bioinspired Construct That Mimics the Proton Coupled Electron Transfer between P680^{â€¢+} and the Tyr_Z-His190 Pair of Photosystem II. Journal of the American Chemical Society, 2008, 130, 10466-10467.	6.6	156
39	Porphyrin-Based Hole Conducting Electropolymer. Chemistry of Materials, 2008, 20, 135-142.	3.2	65
40	Mimicking Photosynthetic Electron and Energy Transfer. Advances in Photochemistry, 2007, , 1-65.	0.4	66
41	Energy Transfer, Excited-State Deactivation, and Exciplex Formation in Artificial Caroteno-Phthalocyanine Light-Harvesting Antennasâ€. Journal of Physical Chemistry B, 2007, 111, 6868-6877.	1.2	62
42	Driving Force and Electronic Coupling Effects on Photoinduced Electron Transfer in a Fullerene-based Molecular TriadÂ¶. Photochemistry and Photobiology, 2007, 72, 598-611.	1.3	8
43	High-efficiency Energy Transfer from Carotenoids to a Phthalocyanine in an Artificial Photosynthetic AntennaÂ¶. Photochemistry and Photobiology, 2007, 76, 116-121.	1.3	0
44	Molecular switches controlled by light. Chemical Communications, 2006, , 1169-1178.	2.2	274
45	Charge separation and energy transfer in a carotenoâ€"C60dyad: photoinduced electron transfer from the carotenoid excited states. Photochemical and Photobiological Sciences, 2006, 5, 1142-1149.	1.6	21
46	Tetrapyrrole Singlet Excited State Quenching by Carotenoids in an Artificial Photosynthetic Antennaâ€. Journal of Physical Chemistry B, 2006, 110, 25411-25420.	1.2	14
47	Mimicking Bacterial Photosynthesis. , 2006, , 187-210.		2
48	A simple artificial light-harvesting dyad as a model for excess energy dissipation in oxygenic photosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5343-5348.	3.3	125
49	Discrete magnetic microfluidics. Applied Physics Letters, 2006, 89, 034106.	1.5	78
50	Bioinspired energy conversion. Pure and Applied Chemistry, 2005, 77, 1001-1008.	0.9	14
51	Enzymeâ€assisted Reforming of Glucose to Hydrogen in a Photoelectrochemical Cell^{Â¶}. Photochemistry and Photobiology, 2005, 81, 1015-1020.	1.3	0
52	Synthesis and photochemistry of a caroteneâ€"porphyrinâ€"fullerene model photosynthetic reaction center. Journal of Physical Organic Chemistry, 2004, 17, 724-734.	0.9	86
53	Artificial Photosynthetic Reaction Centers with Porphyrins as Primary Electron Acceptorsâ€. Journal of Physical Chemistry B, 2004, 108, 10566-10580.	1.2	53
54	Light Harvesting and Photoprotective Functions of Carotenoids in Compact Artificial Photosynthetic Antenna Designs. Journal of Physical Chemistry B, 2004, 108, 414-425.	1.2	86

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55	Hybrid Photoelectrochemical-Fuel Cell. ACS Symposium Series, 2004, , 361-367.	0.5	1
56	Photoinduced electron transfer in a symmetrical diporphyrinâ€"fullerene triad. Physical Chemistry Chemical Physics, 2004, 6, 5509-5515.	1.3	22
57	Solvatochromic Study of the Microenvironment of Surface-Bound Spiropyrans. Langmuir, 2003, 19, 8801-8806.	1.6	82
58	Stepwise Sequential and Parallel Photoinduced Charge Separation in a Porphyrinâ^'Triquinone Tetradâ€. Journal of Physical Chemistry A, 2003, 107, 3567-3575.	1.1	32
59	Correlation of fluorescence quenching in carotenoporphyrin dyads with the energy of intramolecular charge transfer states. Effect of the number of conjugated double bonds of the carotenoid moiety. Physical Chemistry Chemical Physics, 2003, 5, 469-475.	1.3	32
60	Reaction Center Models in Liquid Crystals: Identification of Paramagnetic Intermediates. Molecular Crystals and Liquid Crystals, 2003, 394, 19-30.	0.4	9
61	Efficient Energy Transfer and Electron Transfer in an Artificial Photosynthetic Antennaâ^'Reaction Center Complexâ€. Journal of Physical Chemistry A, 2002, 106, 2036-2048.	1.1	175
62	Excited state acidity of bifunctional compounds. Physical Chemistry Chemical Physics, 2002, 4, 3383-3389.	1.3	8
63	Photoinduced electron transfer in Ï€-extended tetrathiafulvaleneâ€"porphyrinâ€"fullerene triad molecules. Journal of Materials Chemistry, 2002, 12, 2100-2108.	6.7	71
64	The Gold Porphyrin First Excited Singlet StateÂ¶. Photochemistry and Photobiology, 2002, 76, 47-50.	1.3	6
65	Mimicking Photosynthetic Solar Energy Transduction. Accounts of Chemical Research, 2001, 34, 40-48.	7.6	2,052
66	Photoinduced Electron Transfer in Tetrathiafulvaleneâ^'Porphyrinâ^'Fullerene Molecular Triads. Helvetica Chimica Acta, 2001, 84, 2765.	1.0	77
67	Photon-Controlled Phase Partitioning of Spiropyrans. Journal of Physical Chemistry A, 2000, 104, 6103-6107.	1.1	40
68	Photoinduced Electron Transfer in Carotenoporphyrinâ^'Fullerene Triads:Â Temperature and Solvent Effects. Journal of Physical Chemistry B, 2000, 104, 4307-4321.	1.2	167
69	Photoinduced Electron and Proton Transfer in a Molecular Triad. Advances in Chemistry Series, 1998, , 177-218.	0.6	2
70	Light-driven production of ATP catalysed by F0F1-ATP synthase in an artificial photosynthetic membrane. Nature, 1998, 392, 479-482.	13.7	488
71	Carotenohematoporphyrins as Tumor-Imaging Dyes. Synthesis and In Vitro Photophysical Characterization. Photochemistry and Photobiology, 1998, 68, 459-466.	1.3	25
72	Magnetic Switching of Charge Separation Lifetimes in Artificial Photosynthetic Reaction Centers. Journal of the American Chemical Society, 1998, 120, 10880-10886.	6.6	115

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73	STM Contrast, Electron-Transfer Chemistry, and Conduction in Molecules. Journal of Physical Chemistry B, 1997, 101, 10719-10725.	1.2	127
74	Photoinduced Charge Separation and Charge Recombination to a Triplet State in a Caroteneâˆ’Porphyrinâˆ’Fullerene Triad. Journal of the American Chemical Society, 1997, 119, 1400-1405.	6.6	356
75	Conversion of light energy to proton potential in liposomes by artificial photosynthetic reaction centres. Nature, 1997, 385, 239-241.	13.7	404
76	Very small arrays. Nature, 1997, 386, 21-22.	13.7	49
77	Fullerenes linked to photosynthetic pigments. Research on Chemical Intermediates, 1997, 23, 621-651.	1.3	71
78	Photoelectrochemistry of Langmuirâˆ’Blodgett Films of Carotenoid Pigments on ITO Electrodes. The Journal of Physical Chemistry, 1996, 100, 814-821.	2.9	84
79	PHOTOINDUCED ELECTRON TRANSFER IN A CAROTENOBUCKMINSTERFULLERENE DYAD. Photochemistry and Photobiology, 1995, 62, 1009-1014.	1.3	99
80	Molecular wires and girders. Nature, 1994, 372, 133-134.	13.7	22
81	PREPARATION AND PHOTOPHYSICAL STUDIES OF PORPHYRINâ€C₆₀ DYADS. Photochemistry and Photobiology, 1994, 60, 537-541.	1.3	249
82	The Photochemistry of Carotenoids: Some Photosynthetic and Photomedical Aspects. Annals of the New York Academy of Sciences, 1993, 691, 32-47.	1.8	26
83	Triplet and singlet energy transfer in carotene-porphyrin dyads: role of the linkage bonds.. Journal of the American Chemical Society, 1992, 114, 3590-3603.	6.6	148
84	Mimicking Photosynthetic Electron Transfer. Materials Research Society Symposia Proceedings, 1990, 218, 141.	0.1	1
85	PHOTOPHYSICAL PROPERTIES OF 2â€NITROâ€5,10,15,20â€TETRAâ€pâ€TOLYLPORPHYRINS. Photochemistry and Photobiology, 1990, 51, 419-426.	1.3	79
86	Photoinitiated Electron Transfer in Carotenoporphyrinâ€Quinone Triads: Enhanced Quantum Yields via Control of Reaction Exergonicity. Israel Journal of Chemistry, 1988, 28, 87-95.	1.0	20
87	Digital back off for computer controlled flash spectrometers. Review of Scientific Instruments, 1987, 58, 1629-1631.	0.6	35
88	Ultrafast carotenoid to pheophorbide energy transfer in a biomimetic model for antenna function in photosynthesis. Nature, 1986, 322, 570-572.	13.7	56
89	Photodriven transmembrane charge separation and electron transfer by a carotenoporphyrinâ€“quinone triad. Nature, 1985, 316, 653-655.	13.7	109
90	Photodriven charge separation in a carotenoporphyrinâ€“quinone triad. Nature, 1984, 307, 630-632.	13.7	290

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91	Mimicry of antenna and photo-protective carotenoid functions by a synthetic carotenoporphyrin. Nature, 1981, 290, 329-332.	13.7	83
92	ENERGY TRANSFER FROM CAROTENOID POLYENES TO PORPHYRINS: A LIGHTâ€HARVESTING ANTENNA. Photochemistry and Photobiology, 1980, 32, 691-695.	1.3	82