Gary Hastings

List of Publications by Year
in descending order

55 papers	1,488 citations	279798 23 h-index	330143 37 g-index
55 all docs	55 docs citations	55 times ranked	874 citing authors

#	Article	IF	Citations
1	Observation of the Reduction and Reoxidation of the Primary Electron Acceptor in Photosystem I. Biochemistry, 1994, 33, 3193-3200.	2.5	104
2	Observation of pheophytin reduction in photosystem two reaction centers using femtosecond transient absorption spectroscopy. Biochemistry, 1992, 31, 7638-7647.	2.5	100
3	Universality of Energy and Electron Transfer Processes in Photosystem I. Biochemistry, 1995, 34, 15512-15522.	2.5	93
4	Time-Resolved Fluorescence and Absorption Spectroscopy of Photosystem I. Biochemistry, 1994, 33, 3185-3192.	2.5	91
5	Ultrafast and long-lived photoinduced charge separation in MEH-PPV/nanoporous semiconductor thin film composites. Chemical Physics Letters, 2001, 347, 304-310.	2.6	85
6	Delayed Fluorescence from Fe-S Type Photosynthetic Reaction Centers at Low Redox Potential. Biochemistry, 1994, 33, 3096-3105.	2.5	53
7	Photoinhibition of Photosystem I electron transfer activity in isolated Photosystem I preparations with different chlorophyll contents. Photosynthesis Research, 1996, 47, 121-130.	2.9	52
8	Rate of oxidation of P680 in isolated photosystem 2 reaction centers monitored by loss of chlorophyll stimulated emission. Biochemistry, 1993, 32, 8259-8267.	2.5	50
9	Determination of P680 singlet state lifetimes in photosystem two reaction centres. Chemical Physics Letters, 1992, 188, 54-60.	2.6	45
10	Mutation of the Putative Hydrogen-Bond Donor to P700of Photosystem Iâ€. Biochemistry, 2004, 43, 12634-12647.	2.5	43
11	Directionality of electron transfer in cyanobacterial photosystem I at 298 and 77 K. FEBS Letters, 2015, 589, 1412-1417.	2.8	40
12	Inverted-region electron transfer as a mechanism for enhancing photosynthetic solar energy conversion efficiency. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9267-9272.	7.1	39
13	Modeling electron transfer in photosystem I. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 723-733.	1.0	38
14	Time-Resolved Step-Scan Fourier Transform Infrared and Visible Absorption Difference Spectroscopy for the Study of Photosystem I. Applied Spectroscopy, 2001, 55, 894-900.	2.2	31
15	Photo-Oxidation of P740, the Primary Electron Donor in Photosystem I from Acaryochloris marina. Biophysical Journal, 2003, 85, 3162-3172.	0.5	31
16	FTIR Difference Spectroscopy in Combination with Isotope Labeling for Identification of the Carbonyl Modes of P700 and P700+ in Photosystem I. Biophysical Journal, 2004, 86, 1061-1073.	0.5	31
17	A1 Reduction in Intact Cyanobacterial Photosystem I Particles Studied by Time-Resolved Step-Scan Fourier Transform Infrared Difference Spectroscopy and Isotope Labeling. Biochemistry, 2005, 44, 1880-1893.	2.5	31
18	Probing structural changes in single enveloped virus particles using nano-infrared spectroscopic imaging. PLoS ONE, 2018, 13, e0199112.	2.5	31

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19	Primary Donor Photo-Oxidation in Photosystem I:Â A Re-Evaluation of (P700+â˙ P700) Fourier Transform Infrared Difference Spectraâ€. Biochemistry, 2001, 40, 12943-12949.	2.5	30
20	A Fourier Transform Infrared Absorption Difference Spectrum Associated with the Reduction of A1in Photosystem I:Â Are Both Phylloquinones Involved in Electron Transfer?â€. Biochemistry, 2001, 40, 3681-3689.	2.5	29
21	Time-Resolved FTIR Difference Spectroscopy in Combination with Specific Isotope Labeling for the Study of A1, the Secondary Electron Acceptor in Photosystem 1. Biophysical Journal, 2008, 94, 4383-4392.	0.5	29
22	Subpicosecond photoinduced electron transfer from a conjugated polymer to SnO2 semiconductor nanocrystals. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 215-218.	2.7	25
23	Infrared microscopy for the study of biological cell monolayers. I. Spectral effects of acetone and formalin fixation. Biopolymers, 2008, 89, 921-930.	2.4	24
24	Time-resolved visible and infrared difference spectroscopy for the study of photosystem I with different quinones incorporated into the A1 binding site. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 343-354.	1.0	24
25	Vibrational spectroscopy of photosystem I. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 55-68.	1.0	23
26	Density functional theory based calculations of the vibrational properties of chlorophyll-a. Vibrational Spectroscopy, 2007, 44, 357-368.	2.2	22
27	Modeling the A1 binding site in photosystem. Vibrational Spectroscopy, 2006, 42, 78-87.	2.2	21
28	Modification of the Phylloquinone in the A1Binding Site in Photosystem I Studied Using Time-Resolved FTIR Difference Spectroscopy and Density Functional Theoryâ€. Biochemistry, 2006, 45, 4121-4127.	2.5	19
29	Mutation Induced Modulation of Hydrogen Bonding to P700 Studied Using FTIR Difference Spectroscopyâ€. Biochemistry, 2003, 42, 9889-9897.	2.5	18
30	Calculated vibrational properties of pigments in protein binding sites. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10526-10531.	7.1	17
31	Calculation of the Vibrational Properties of Chlorophyll a in Solution. Journal of Physical Chemistry B, 2008, 112, 14056-14062.	2.6	16
32	Fourier transform visible and infrared difference spectroscopy for the study of P700 in photosystem I from Fischerella thermalis PCC 7521 cells grown under white light and far-red light: Evidence that the Aâ€“1 cofactor is chlorophyll f. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 452-460.	1.0	16
33	Quinones in the A1 binding site in photosystem I studied using time-resolved FTIR difference spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 804-813.	1.0	15
34	Time-Resolved FTIR Difference Spectroscopy for the Study of Photosystem I Particles with Plastoquinone-9 Occupying the A1Binding Siteâ€. Biochemistry, 2006, 45, 12733-12740.	2.5	14
35	Introduction of a Hydrogen Bond between Phylloquinone PhQ_A and a Threonine Side-Chain OH Group in Photosystem I. Journal of Physical Chemistry B, 2012, 116, 14008-14016.	2.6	13
36	Time-resolved visible and infrared absorption spectroscopy data obtained using photosystem I particles with non-native quinones incorporated into the A1 binding site. Data in Brief, 2016, 7, 1463-1468.	1.0	13

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37	Comparison of calculated and experimental FTIR spectra of specifically labeled ubiquinones. Vibrational Spectroscopy, 2011, 55, 279-286.	2.2	12
38	Comparison of calculated and experimental isotope edited FTIR difference spectra for purple bacterial photosynthetic reaction centers with different quinones incorporated into the QA binding site. Frontiers in Plant Science, 2013, 4, 328.	3.6	12
39	Vibrational mode frequency calculations of chlorophyll-d for assessing (P740+-P740) FTIR difference spectra obtained using photosystem I particles from Acaryochloris marina. Photosynthesis Research, 2007, 95, 55-62.	2.9	11
40	Modelling electron transfer in photosystem I: limits and perspectives. Physiologia Plantarum, 2019, 166, 73-87.	5.2	11
41	Reversible inhibition and reactivation of electron transfer in photosystem I. Photosynthesis Research, 2020, 145, 97-109.	2.9	10
42	Viral infection of cells in culture detected using infrared microscopy. Analyst, The, 2009, 134, 1462.	3.5	9
43	On the Nature of the Hydrogen Bonds to Neutral Ubiquinone in the QA Binding Site in Purple Bacterial Photosynthetic Reaction Centers. Journal of Physical Chemistry B, 2013, 117, 8705-8713.	2.6	8
44	Time-resolved step-scan FTIR difference spectroscopy for the study of photosystem I with different benzoquinones incorporated into the A1 binding site. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 1199-1206.	1.0	8
45	Calculated vibrational properties of semiquinones in the A1 binding site in photosystem I. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 699-707.	1.0	8
46	Time-resolved FTIR difference spectroscopy for the study of quinones in the A1 binding site in photosystem I: Identification of neutral state quinone bands. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148173.	1.0	8
47	The effect of hydrogen-bonding on flavinâ€™s infrared absorption spectrum. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 262, 120110.	3.9	8
48	Temperature-Induced Formation of a Non-Native Intermediate State of the All - Î²Sheet Protein CD2. Cell Biochemistry and Biophysics, 2002, 36, 01-18.	1.8	7
49	Photosystem I with benzoquinone analogues incorporated into the A1 binding site. Photosynthesis Research, 2018, 137, 85-93.	2.9	5
50	Assessment of the orientation and conformation of pigments in protein binding sites from infrared difference spectra. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148366.	1.0	5
51	Experimental and calculated infrared spectra of disubstituted naphthoquinones. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 268, 120674.	3.9	5
52	Calculated Vibrational Properties of Ubisemiquinones. Computational Biology Journal, 2013, 2013, 1-11.	0.6	2
53	Fourier Transform Infrared Studies of the Secondary Electron Acceptor, A1. , 2006, , 301-318.		2
54	Quinone Anion Bands in A1 â˜/A1 FTIR Difference Spectra Investigated Using Photosystem I Particles with Specifically Labeled Naphthoquinones Incorporated into the A1 Binding Site. , 2008, , 73-76.		1

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55	Integrating a partial least squares model with an artificial neural network to discriminate FTIR spectra of virus infected vero cells at 6 hours post exposure. , 2011, , .		0