R Brian Dyer

List of Publications by Year
in descending order

		87888	106344
73	4,375	38	65
papers	citations	h-index	g-index

76	76	76	3740
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fast Events in Protein Folding:Â Helix Melting and Formation in a Small Peptideâ€. Biochemistry, 1996, 35, 691-697.	2.5	604
2	FAST EVENTS IN PROTEIN FOLDING: The Time Evolution of Primary Processes. Annual Review of Physical Chemistry, 1998, 49, 173-202.	10.8	202
3	Infrared Studies of Fast Events in Protein Folding. Accounts of Chemical Research, 1998, 31, 709-716.	15.6	194
4	Electronic coupling in cyano-bridged ruthenium polypyridine complexes and role of electronic effects on cyanide stretching frequencies. Inorganic Chemistry, 1992, 31, 5260-5267.	4.0	164
5	Nanoparticle-Free Synthesis of Fluorescent Gold Nanoclusters at Physiological Temperature. Journal of Physical Chemistry C, 2007, 111, 12194-12198.	3.1	152
6	Residue Specific Resolution of Protein Folding Dynamics Using Isotope-Edited Infrared Temperature Jump Spectroscopyâ€. Biochemistry, 2007, 46, 3279-3285.	2.5	115
7	Direct Evidence of Active-Site Reduction and Photodriven Catalysis in Sensitized Hydrogenase Assemblies. Journal of the American Chemical Society, 2012, 134, 11108-11111.	13.7	113
8	Ultrafast electron transfer and coupled vibrational dynamics in cyanide bridged mixed-valence transition-metal dimers. Journal of the American Chemical Society, 1993, 115, 6398-6405.	13.7	109
9	The Dynamical Nature of Enzymatic Catalysis. Accounts of Chemical Research, 2015, 48, 407-413.	15.6	106
10	Application of Time-Resolved, Step-Scan Fourier Transform Infrared Spectroscopy to Excited-State Electronic Structure in Polypyridyl Complexes of Rhenium(I). Inorganic Chemistry, 1996, 35, 273-274.	4.0	97
11	Probing protein dynamics using temperature jump relaxation spectroscopy. Current Opinion in Structural Biology, 2002, 12, 628-633.	5.7	97
12	Balancing electron transfer rate and driving force for efficient photocatalytic hydrogen production in CdSe/CdS nanorodâ€"[NiFe] hydrogenase assemblies. Energy and Environmental Science, 2017, 10, 2245-2255.	30.8	90
13	Mid-Infrared Spectrum of [Ru(bpy)3]2+*. Journal of the American Chemical Society, 1997, 119, 7013-7018.	13.7	88
14	Formation and Stabilization of Fluorescent Gold Nanoclusters Using Small Molecules. Journal of Physical Chemistry C, 2010, 114, 15879-15882.	3.1	88
15	Advances in Time-Resolved Approaches To Characterize the Dynamical Nature of Enzymatic Catalysis. Chemical Reviews, 2006, 106, 3031-3042.	47.7	87
16	Dynamics of the Primary Processes of Protein Folding:Â Helix Nucleation. Journal of Physical Chemistry B, 2002, 106, 487-494.	2.6	82
17	Effect of modulating unfolded state structure on the folding kinetics of the villin headpiece subdomain. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16662-16667.	7.1	82
18	The Mechanism of Î²-Hairpin Formationâ€. Biochemistry, 2004, 43, 11560-11566.	2.5	80

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19	Effect of Hexafluoroisopropanol on the Thermodynamics of Peptide Secondary Structure Formation. Journal of the American Chemical Society, 1999, 121, 9879-9880.	13.7	76
20	The helix turn helix motif as an ultrafast independently folding domain: The pathway of folding of Engrailed homeodomain. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9272-9277.	7.1	71
21	Fast Events in Protein Folding:Â Relaxation Dynamics and Structure of the I Form of Apomyoglobinâ€. Biochemistry, 1997, 36, 15006-15012.	2.5	69
22	Application of transient infrared spectroscopy to intramolecular energy transfer in [(phen)(CO)3ReI(NC)RuII(CN)(bpy)2]+. Journal of the American Chemical Society, 1993, 115, 10996-10997.	13.7	67
23	Time-Resolved, Step-Scan FTIR Spectroscopy of Excited States of Transition Metal Complexes. Comments on Inorganic Chemistry, 1996, 18, 165-188.	5.2	66
24	Nonequilibrium protein folding dynamics: laser-induced pH-jump studies of the helixâ€"coil transition. Chemical Physics, 2006, 323, 2-10.	1.9	63
25	Ultrafast and downhill protein folding. Current Opinion in Structural Biology, 2007, 17, 38-47.	5.7	62
26	Proton Inventory and Dynamics in the Ni_a-S to Ni_a-C Transition of a [NiFe] Hydrogenase. Biochemistry, 2016, 55, 1813-1825.	2.5	59
27	Probing the Folding and Unfolding Dynamics of Secondary and Tertiary Structures in a Three-Helix Bundle Proteinâ€. Biochemistry, 2004, 43, 3582-3589.	2.5	57
28	Nanosecond Temperature Jump Relaxation Dynamics of Cyclic Î²-Hairpin Peptides. Biophysical Journal, 2003, 84, 3874-3882.	0.5	51
29	Toward an Understanding of the Role of Dynamics on Enzymatic Catalysis in Lactate Dehydrogenaseâ€. Biochemistry, 2002, 41, 3353-3363.	2.5	50
30	Glutamate Gated Proton-Coupled Electron Transfer Activity of a [NiFe]-Hydrogenase. Journal of the American Chemical Society, 2016, 138, 13013-13021.	13.7	48
31	Optimizing electron transfer from CdSe QDs to hydrogenase for photocatalytic H₂ production. Chemical Communications, 2019, 55, 5579-5582.	4.1	46
32	Core Formation in Apomyoglobin:Â Probing the Upper Reaches of the Folding Energy Landscapeâ€. Biochemistry, 2001, 40, 5137-5143.	2.5	44
33	Hairpin Folding Dynamics:â€‰ The Cold-Denatured State Is Predisposed for Rapid Refolding. Biochemistry, 2005, 44, 10406-10415.	2.5	43
34	Differential Ordering of the Protein Backbone and Side Chains during Protein Folding Revealed by Site-Specific Recombinant Infrared Probes. Journal of the American Chemical Society, 2011, 133, 20335-20340.	13.7	42
35	Raising the Speed Limit for Î²-Hairpin Formation. Journal of the American Chemical Society, 2012, 134, 14476-14482.	13.7	42
36	A two-dimensional view of the folding energy landscape of cytochrome c. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11130-11135.	7.1	40

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37	Applications of Photogating and Time Resolved Spectroscopy to Mechanistic Studies of Hydrogenases. Accounts of Chemical Research, 2017, 50, 2718-2726.	15.6	40
38	The core of apomyoglobin E-form folds at the diffusion limit. Nature Structural Biology, 1998, 5, 363-365.	9.7	38
39	Investigating the Kinetic Competency of <i>Cr</i>HydA1 [FeFe] Hydrogenase Intermediate States via Time-Resolved Infrared Spectroscopy. Journal of the American Chemical Society, 2019, 141, 16064-16070.	13.7	38
40	Structures of Apomyoglobin's Various Acid-Destabilized Formsâ€. Biochemistry, 2001, 40, 5127-5136.	2.5	34
41	Dependence of NO Recombination Dynamics in Horse Myoglobin on Solution Glycerol Content. Journal of Physical Chemistry B, 1999, 103, 7969-7975.	2.6	33
42	There Is Communication between All Four Ca2+-Bindings Sites of Calcineurin Bâ€. Biochemistry, 2001, 40, 12094-12102.	2.5	33
43	Dynamics of the Gel to Fluid Phase Transformation in Unilamellar DPPC Vesicles. Journal of Physical Chemistry B, 2012, 116, 13749-13756.	2.6	33
44	Energy Landscape of the Michaelis Complex of Lactate Dehydrogenase: Relationship to Catalytic Mechanism. Biochemistry, 2014, 53, 1849-1857.	2.5	32
45	On the Pathway of Forming Enzymatically Productive Ligand-Protein Complexes in Lactate Dehydrogenase. Biophysical Journal, 2008, 95, 804-813.	0.5	30
46	Studies of helix fraying and solvation using13Câ€² isotopomers. Protein Science, 2005, 14, 2324-2332.	7.6	29
47	Pre-Steady-State Kinetics of Catalytic Intermediates of an [FeFe]-Hydrogenase. ACS Catalysis, 2017, 7, 2145-2150.	11.2	29
48	Direct Evidence of Catalytic Heterogeneity in Lactate Dehydrogenase by Temperature Jump Infrared Spectroscopy. Journal of Physical Chemistry B, 2014, 118, 10854-10862.	2.6	28
49	Localized Nanoscale Heating Leads to Ultrafast Hydrogel Volume-Phase Transition. ACS Nano, 2019, 13, 515-525.	14.6	28
50	Primary Folding Dynamics of Sperm Whale Apomyoglobin: Core Formation. Biophysical Journal, 2003, 84, 1909-1918.	0.5	26
51	Time-Resolved Infrared Spectroscopy of RNA Folding. Biophysical Journal, 2005, 89, 3523-3530.	0.5	26
52	Structural Transformations in the Dynamics of Michaelis Complex Formation in Lactate Dehydrogenase. Biophysical Journal, 2005, 89, L07-L09.	0.5	25
53	Conformational Heterogeneity within the Michaelis Complex of Lactate Dehydrogenase. Journal of Physical Chemistry B, 2011, 115, 7670-7678.	2.6	25
54	Temperature Dependence of Water Interactions with the Amide Carbonyls of Î±-Helices. Biochemistry, 2012, 51, 5293-5299.	2.5	25

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55	Submillisecond mixing in a continuous-flow, microfluidic mixer utilizing mid-infrared hyperspectral imaging detection. Lab on A Chip, 2014, 14, 584-591.	6.0	25
56	Activity-Related Microsecond Dynamics Revealed by Temperature-Jump FÃ¶rster Resonance Energy Transfer Measurements on Thermophilic Alcohol Dehydrogenase. Journal of the American Chemical Society, 2018, 140, 900-903.	13.7	25
57	Experimental Resolution of Early Steps in Protein Folding:Â Testing Molecular Dynamics Simulations. Journal of the American Chemical Society, 2004, 126, 6546-6547.	13.7	24
58	Microfluidic Flow-Flash:Â Method for Investigating Protein Dynamics. Analytical Chemistry, 2007, 79, 122-128.	6.5	20
59	Early Turn Formation and Chain Collapse Drive Fast Folding of the Major Cold Shock Protein CspA of <i>Escherichia coli</i>. Biochemistry, 2012, 51, 9104-9111.	2.5	20
60	A simple three-dimensional-focusing, continuous-flow mixer for the study of fast protein dynamics. Lab on A Chip, 2013, 13, 2912.	6.0	20
61	A quantitative connection of experimental and simulated folding landscapes by vibrational spectroscopy. Chemical Science, 2018, 9, 9002-9011.	7.4	20
62	Dynamics of an Ultrafast Folding Subdomain in the Context of a Larger Protein Fold. Journal of the American Chemical Society, 2013, 135, 19260-19267.	13.7	18
63	Application of Time-Resolved Vibrational Spectroscopy to the Study of Excited-State Intercomponent Processes in Supramolecular Systems. Comments on Inorganic Chemistry, 1996, 18, 77-100.	5.2	17
64	Time-Resolved Infrared Studies on Two Isomeric Ruthenium(II)/Rhenium(I) Complexes Containing a Nonsymmetric Quaterpyridine Bridging Ligand. Inorganic Chemistry, 1998, 37, 2598-2601.	4.0	15
65	Heterogeneity in the Folding of Villin Headpiece Subdomain HP36. Journal of Physical Chemistry B, 2018, 122, 11640-11648.	2.6	14
66	Resolution of Submillisecond Kinetics of Multiple Reaction Pathways for Lactate Dehydrogenase. Biophysical Journal, 2017, 112, 1852-1862.	0.5	11
67	Dual time-resolved temperature-jump fluorescence and infrared spectroscopy for the study of fast protein dynamics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 178, 185-191.	3.9	9
68	Acceleration of catalysis in dihydrofolate reductase by transient, site-specific photothermal excitation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
69	The Laser-Induced Potential Jump: A Method for Rapid Electron Injection into Oxidoreductase Enzymes. Journal of Physical Chemistry B, 2020, 124, 8750-8760.	2.6	8
70	Implementation of Time-Resolved Step-Scan Fourier Transform Infrared (FT-IR) Spectroscopy Using a kHz Repetition Rate Pump Laser. Applied Spectroscopy, 2011, 65, 535-542.	2.2	7
71	Ligand-Dependent Conformational Dynamics of Dihydrofolate Reductase. Biochemistry, 2016, 55, 1485-1493.	2.5	7
72	Efficient, Light-Driven Reduction of CO₂ to CO by a Carbon Monoxide Dehydrogenaseâ€"CdSe/CdS Nanorod Photosystem. Journal of Physical Chemistry Letters, 2022, 13, 5553-5556.	4.6	4

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73	Stability of HA2 Prefusion Structure and pH-Induced Conformational Changes in the HA2 Domain of H3N2 Hemagglutinin. Biochemistry, 2021, 60, 2623-2636.	2.5	1