R Brian Dyer

List of Publications by Year
in descending order

73 papers	4,375 citations	87888 38 h-index	106344 65 g-index
76 all docs	76 docs citations	76 times ranked	3740 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	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
5	Investigating the Kinetic Competency of CrHydA1 [FeFe] Hydrogenase Intermediate States via Time-Resolved Infrared Spectroscopy. Journal of the American Chemical Society, 2019, 141, 16064-16070.	13.7	38
6	Optimizing electron transfer from CdSe QDs to hydrogenase for photocatalytic H₂ production. Chemical Communications, 2019, 55, 5579-5582.	4.1	46
7	Localized Nanoscale Heating Leads to Ultrafast Hydrogel Volume-Phase Transition. ACS Nano, 2019, 13, 515-525.	14.6	28
8	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
9	A quantitative connection of experimental and simulated folding landscapes by vibrational spectroscopy. Chemical Science, 2018, 9, 9002-9011.	7.4	20
10	Heterogeneity in the Folding of Villin Headpiece Subdomain HP36. Journal of Physical Chemistry B, 2018, 122, 11640-11648.	2.6	14
11	Pre-Steady-State Kinetics of Catalytic Intermediates of an [FeFe]-Hydrogenase. ACS Catalysis, 2017, 7, 2145-2150.	11.2	29
12	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
13	Resolution of Submillisecond Kinetics of Multiple Reaction Pathways for Lactate Dehydrogenase. Biophysical Journal, 2017, 112, 1852-1862.	0.5	11
14	Applications of Photogating and Time Resolved Spectroscopy to Mechanistic Studies of Hydrogenases. Accounts of Chemical Research, 2017, 50, 2718-2726.	15.6	40
15	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
16	Glutamate Gated Proton-Coupled Electron Transfer Activity of a [NiFe]-Hydrogenase. Journal of the American Chemical Society, 2016, 138, 13013-13021.	13.7	48
17	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
18	Ligand-Dependent Conformational Dynamics of Dihydrofolate Reductase. Biochemistry, 2016, 55, 1485-1493.	2.5	7

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19	The Dynamical Nature of Enzymatic Catalysis. Accounts of Chemical Research, 2015, 48, 407-413.	15.6	106
20	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
21	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
22	Energy Landscape of the Michaelis Complex of Lactate Dehydrogenase: Relationship to Catalytic Mechanism. Biochemistry, 2014, 53, 1849-1857.	2.5	32
23	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
24	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
25	Temperature Dependence of Water Interactions with the Amide Carbonyls of Î±-Helices. Biochemistry, 2012, 51, 5293-5299.	2.5	25
26	Raising the Speed Limit for Î²-Hairpin Formation. Journal of the American Chemical Society, 2012, 134, 14476-14482.	13.7	42
27	Early Turn Formation and Chain Collapse Drive Fast Folding of the Major Cold Shock Protein CspA of Escherichia coli. Biochemistry, 2012, 51, 9104-9111.	2.5	20
28	Dynamics of the Gel to Fluid Phase Transformation in Unilamellar DPPC Vesicles. Journal of Physical Chemistry B, 2012, 116, 13749-13756.	2.6	33
29	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
30	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
31	Conformational Heterogeneity within the Michaelis Complex of Lactate Dehydrogenase. Journal of Physical Chemistry B, 2011, 115, 7670-7678.	2.6	25
32	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
33	Formation and Stabilization of Fluorescent Gold Nanoclusters Using Small Molecules. Journal of Physical Chemistry C, 2010, 114, 15879-15882.	3.1	88
34	On the Pathway of Forming Enzymatically Productive Ligand-Protein Complexes in Lactate Dehydrogenase. Biophysical Journal, 2008, 95, 804-813.	0.5	30
35	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
36	Nanoparticle-Free Synthesis of Fluorescent Gold Nanoclusters at Physiological Temperature. Journal of Physical Chemistry C, 2007, 111, 12194-12198.	3.1	152

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37	Microfluidic Flow-Flash:Â Method for Investigating Protein Dynamics. Analytical Chemistry, 2007, 79, 122-128.	6.5	20
38	Residue Specific Resolution of Protein Folding Dynamics Using Isotope-Edited Infrared Temperature Jump Spectroscopyâ€. Biochemistry, 2007, 46, 3279-3285.	2.5	115
39	Ultrafast and downhill protein folding. Current Opinion in Structural Biology, 2007, 17, 38-47.	5.7	62
40	Advances in Time-Resolved Approaches To Characterize the Dynamical Nature of Enzymatic Catalysis. Chemical Reviews, 2006, 106, 3031-3042.	47.7	87
41	Nonequilibrium protein folding dynamics: laser-induced pH-jump studies of the helixâ€“coil transition. Chemical Physics, 2006, 323, 2-10.	1.9	63
42	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
43	Studies of helix fraying and solvation using13Câ€² isotopomers. Protein Science, 2005, 14, 2324-2332.	7.6	29
44	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
45	Hairpin Folding Dynamics:â€‰ The Cold-Denatured State Is Predisposed for Rapid Refolding. Biochemistry, 2005, 44, 10406-10415.	2.5	43
46	Time-Resolved Infrared Spectroscopy of RNA Folding. Biophysical Journal, 2005, 89, 3523-3530.	0.5	26
47	Structural Transformations in the Dynamics of Michaelis Complex Formation in Lactate Dehydrogenase. Biophysical Journal, 2005, 89, L07-L09.	0.5	25
48	The Mechanism of Î²-Hairpin Formationâ€. Biochemistry, 2004, 43, 11560-11566.	2.5	80
49	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
50	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
51	Primary Folding Dynamics of Sperm Whale Apomyoglobin: Core Formation. Biophysical Journal, 2003, 84, 1909-1918.	0.5	26
52	Nanosecond Temperature Jump Relaxation Dynamics of Cyclic Î²-Hairpin Peptides. Biophysical Journal, 2003, 84, 3874-3882.	0.5	51
53	Dynamics of the Primary Processes of Protein Folding:Â Helix Nucleation. Journal of Physical Chemistry B, 2002, 106, 487-494.	2.6	82
54	Toward an Understanding of the Role of Dynamics on Enzymatic Catalysis in Lactate Dehydrogenaseâ€. Biochemistry, 2002, 41, 3353-3363.	2.5	50

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55	Probing protein dynamics using temperature jump relaxation spectroscopy. Current Opinion in Structural Biology, 2002, 12, 628-633.	5.7	97
56	Structures of Apomyoglobin's Various Acid-Destabilized Formsâ€. Biochemistry, 2001, 40, 5127-5136.	2.5	34
57	Core Formation in Apomyoglobin:Â Probing the Upper Reaches of the Folding Energy Landscapeâ€. Biochemistry, 2001, 40, 5137-5143.	2.5	44
58	There Is Communication between All Four Ca2+-Bindings Sites of Calcineurin Bâ€. Biochemistry, 2001, 40, 12094-12102.	2.5	33
59	Effect of Hexafluoroisopropanol on the Thermodynamics of Peptide Secondary Structure Formation. Journal of the American Chemical Society, 1999, 121, 9879-9880.	13.7	76
60	Dependence of NO Recombination Dynamics in Horse Myoglobin on Solution Glycerol Content. Journal of Physical Chemistry B, 1999, 103, 7969-7975.	2.6	33
61	The core of apomyoglobin E-form folds at the diffusion limit. Nature Structural Biology, 1998, 5, 363-365.	9.7	38
62	Infrared Studies of Fast Events in Protein Folding. Accounts of Chemical Research, 1998, 31, 709-716.	15.6	194
63	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
64	FAST EVENTS IN PROTEIN FOLDING: The Time Evolution of Primary Processes. Annual Review of Physical Chemistry, 1998, 49, 173-202.	10.8	202
65	Mid-Infrared Spectrum of [Ru(bpy)3]2+*. Journal of the American Chemical Society, 1997, 119, 7013-7018.	13.7	88
66	Fast Events in Protein Folding:Â Relaxation Dynamics and Structure of the I Form of Apomyoglobinâ€. Biochemistry, 1997, 36, 15006-15012.	2.5	69
67	Fast Events in Protein Folding:Â Helix Melting and Formation in a Small Peptideâ€. Biochemistry, 1996, 35, 691-697.	2.5	604
68	Time-Resolved, Step-Scan FTIR Spectroscopy of Excited States of Transition Metal Complexes. Comments on Inorganic Chemistry, 1996, 18, 165-188.	5.2	66
69	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
70	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
71	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
72	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

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73	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