

R Brian Dyer

List of Publications by Year in descending order

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73
papers

4,375
citations

94269

37
h-index

106150

65
g-index

76
all docs

76
docs citations

76
times ranked

3740
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Efficient, Light-Driven Reduction of CO ₂ to CO by a Carbon Monoxide Dehydrogenase-CdSe/CdS Nanorod Photosystem. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5553-5556. | 2.1 | 4 |
| 2 | Acceleration of catalysis in dihydrofolate reductase by transient, site-specific photothermal excitation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 9 |
| 3 | Stability of HA2 Prefusion Structure and pH-Induced Conformational Changes in the HA2 Domain of H3N2 Hemagglutinin. <i>Biochemistry</i> , 2021, 60, 2623-2636. | 1.2 | 1 |
| 4 | The Laser-Induced Potential Jump: A Method for Rapid Electron Injection into Oxidoreductase Enzymes. <i>Journal of Physical Chemistry B</i> , 2020, 124, 8750-8760. | 1.2 | 8 |
| 5 | Investigating the Kinetic Competency of CrHydA1 [FeFe] Hydrogenase Intermediate States via Time-Resolved Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , 2019, 141, 16064-16070. | 6.6 | 38 |
| 6 | Optimizing electron transfer from CdSe QDs to hydrogenase for photocatalytic H ₂ production. <i>Chemical Communications</i> , 2019, 55, 5579-5582. | 2.2 | 46 |
| 7 | Localized Nanoscale Heating Leads to Ultrafast Hydrogel Volume-Phase Transition. <i>ACS Nano</i> , 2019, 13, 515-525. | 7.3 | 28 |
| 8 | Activity-Related Microsecond Dynamics Revealed by Temperature-Jump Förster Resonance Energy Transfer Measurements on Thermophilic Alcohol Dehydrogenase. <i>Journal of the American Chemical Society</i> , 2018, 140, 900-903. | 6.6 | 25 |
| 9 | A quantitative connection of experimental and simulated folding landscapes by vibrational spectroscopy. <i>Chemical Science</i> , 2018, 9, 9002-9011. | 3.7 | 20 |
| 10 | Heterogeneity in the Folding of Villin Headpiece Subdomain HP36. <i>Journal of Physical Chemistry B</i> , 2018, 122, 11640-11648. | 1.2 | 14 |
| 11 | Pre-Steady-State Kinetics of Catalytic Intermediates of an [FeFe]-Hydrogenase. <i>ACS Catalysis</i> , 2017, 7, 2145-2150. | 5.5 | 29 |
| 12 | Dual time-resolved temperature-jump fluorescence and infrared spectroscopy for the study of fast protein dynamics. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 178, 185-191. | 2.0 | 9 |
| 13 | Resolution of Submillisecond Kinetics of Multiple Reaction Pathways for Lactate Dehydrogenase. <i>Biophysical Journal</i> , 2017, 112, 1852-1862. | 0.2 | 11 |
| 14 | Applications of Photogating and Time Resolved Spectroscopy to Mechanistic Studies of Hydrogenases. <i>Accounts of Chemical Research</i> , 2017, 50, 2718-2726. | 7.6 | 40 |
| 15 | Balancing electron transfer rate and driving force for efficient photocatalytic hydrogen production in CdSe/CdS nanorod-NiFe hydrogenase assemblies. <i>Energy and Environmental Science</i> , 2017, 10, 2245-2255. | 15.6 | 90 |
| 16 | Glutamate Gated Proton-Coupled Electron Transfer Activity of a [NiFe]-Hydrogenase. <i>Journal of the American Chemical Society</i> , 2016, 138, 13013-13021. | 6.6 | 48 |
| 17 | Proton Inventory and Dynamics in the Ni ^a -S to Ni ^a -C Transition of a [NiFe] Hydrogenase. <i>Biochemistry</i> , 2016, 55, 1813-1825. | 1.2 | 59 |
| 18 | Ligand-Dependent Conformational Dynamics of Dihydrofolate Reductase. <i>Biochemistry</i> , 2016, 55, 1485-1493. | 1.2 | 7 |

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|----|--|-----|-----------|
| 19 | The Dynamical Nature of Enzymatic Catalysis. <i>Accounts of Chemical Research</i> , 2015, 48, 407-413. | 7.6 | 106 |
| 20 | Submillisecond mixing in a continuous-flow, microfluidic mixer utilizing mid-infrared hyperspectral imaging detection. <i>Lab on A Chip</i> , 2014, 14, 584-591. | 3.1 | 25 |
| 21 | Direct Evidence of Catalytic Heterogeneity in Lactate Dehydrogenase by Temperature Jump Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2014, 118, 10854-10862. | 1.2 | 28 |
| 22 | Energy Landscape of the Michaelis Complex of Lactate Dehydrogenase: Relationship to Catalytic Mechanism. <i>Biochemistry</i> , 2014, 53, 1849-1857. | 1.2 | 32 |
| 23 | A simple three-dimensional-focusing, continuous-flow mixer for the study of fast protein dynamics. <i>Lab on A Chip</i> , 2013, 13, 2912. | 3.1 | 20 |
| 24 | Dynamics of an Ultrafast Folding Subdomain in the Context of a Larger Protein Fold. <i>Journal of the American Chemical Society</i> , 2013, 135, 19260-19267. | 6.6 | 18 |
| 25 | Temperature Dependence of Water Interactions with the Amide Carbonyls of α -Helices. <i>Biochemistry</i> , 2012, 51, 5293-5299. | 1.2 | 25 |
| 26 | Raising the Speed Limit for β -Hairpin Formation. <i>Journal of the American Chemical Society</i> , 2012, 134, 14476-14482. | 6.6 | 42 |
| 27 | Early Turn Formation and Chain Collapse Drive Fast Folding of the Major Cold Shock Protein CspA of <i>Escherichia coli</i> . <i>Biochemistry</i> , 2012, 51, 9104-9111. | 1.2 | 20 |
| 28 | Dynamics of the Gel to Fluid Phase Transformation in Unilamellar DPPC Vesicles. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13749-13756. | 1.2 | 33 |
| 29 | Direct Evidence of Active-Site Reduction and Photodriven Catalysis in Sensitized Hydrogenase Assemblies. <i>Journal of the American Chemical Society</i> , 2012, 134, 11108-11111. | 6.6 | 113 |
| 30 | Differential Ordering of the Protein Backbone and Side Chains during Protein Folding Revealed by Site-Specific Recombinant Infrared Probes. <i>Journal of the American Chemical Society</i> , 2011, 133, 20335-20340. | 6.6 | 42 |
| 31 | Conformational Heterogeneity within the Michaelis Complex of Lactate Dehydrogenase. <i>Journal of Physical Chemistry B</i> , 2011, 115, 7670-7678. | 1.2 | 25 |
| 32 | Implementation of Time-Resolved Step-Scan Fourier Transform Infrared (FT-IR) Spectroscopy Using a kHz Repetition Rate Pump Laser. <i>Applied Spectroscopy</i> , 2011, 65, 535-542. | 1.2 | 7 |
| 33 | Formation and Stabilization of Fluorescent Gold Nanoclusters Using Small Molecules. <i>Journal of Physical Chemistry C</i> , 2010, 114, 15879-15882. | 1.5 | 88 |
| 34 | On the Pathway of Forming Enzymatically Productive Ligand-Protein Complexes in Lactate Dehydrogenase. <i>Biophysical Journal</i> , 2008, 95, 804-813. | 0.2 | 30 |
| 35 | The helix turn helix motif as an ultrafast independently folding domain: The pathway of folding of Engrailed homeodomain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 9272-9277. | 3.3 | 71 |
| 36 | Nanoparticle-Free Synthesis of Fluorescent Gold Nanoclusters at Physiological Temperature. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12194-12198. | 1.5 | 152 |

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|----|---|------|-----------|
| 37 | Microfluidic Flow-Flash: A Method for Investigating Protein Dynamics. <i>Analytical Chemistry</i> , 2007, 79, 122-128. | 3.2 | 20 |
| 38 | Residue Specific Resolution of Protein Folding Dynamics Using Isotope-Edited Infrared Temperature Jump Spectroscopy. <i>Biochemistry</i> , 2007, 46, 3279-3285. | 1.2 | 115 |
| 39 | Ultrafast and downhill protein folding. <i>Current Opinion in Structural Biology</i> , 2007, 17, 38-47. | 2.6 | 62 |
| 40 | Advances in Time-Resolved Approaches To Characterize the Dynamical Nature of Enzymatic Catalysis. <i>Chemical Reviews</i> , 2006, 106, 3031-3042. | 23.0 | 87 |
| 41 | Nonequilibrium protein folding dynamics: laser-induced pH-jump studies of the helix-coil transition. <i>Chemical Physics</i> , 2006, 323, 2-10. | 0.9 | 63 |
| 42 | A two-dimensional view of the folding energy landscape of cytochrome c. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 11130-11135. | 3.3 | 40 |
| 43 | Studies of helix fraying and solvation using ^{13}C isotopomers. <i>Protein Science</i> , 2005, 14, 2324-2332. | 3.1 | 29 |
| 44 | Effect of modulating unfolded state structure on the folding kinetics of the villin headpiece subdomain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 16662-16667. | 3.3 | 82 |
| 45 | Hairpin Folding Dynamics: The Cold-Denatured State Is Predisposed for Rapid Refolding. <i>Biochemistry</i> , 2005, 44, 10406-10415. | 1.2 | 43 |
| 46 | Time-Resolved Infrared Spectroscopy of RNA Folding. <i>Biophysical Journal</i> , 2005, 89, 3523-3530. | 0.2 | 26 |
| 47 | Structural Transformations in the Dynamics of Michaelis Complex Formation in Lactate Dehydrogenase. <i>Biophysical Journal</i> , 2005, 89, L07-L09. | 0.2 | 25 |
| 48 | The Mechanism of β^2 -Hairpin Formation. <i>Biochemistry</i> , 2004, 43, 11560-11566. | 1.2 | 80 |
| 49 | Probing the Folding and Unfolding Dynamics of Secondary and Tertiary Structures in a Three-Helix Bundle Protein. <i>Biochemistry</i> , 2004, 43, 3582-3589. | 1.2 | 57 |
| 50 | Experimental Resolution of Early Steps in Protein Folding: Testing Molecular Dynamics Simulations. <i>Journal of the American Chemical Society</i> , 2004, 126, 6546-6547. | 6.6 | 24 |
| 51 | Primary Folding Dynamics of Sperm Whale Apomyoglobin: Core Formation. <i>Biophysical Journal</i> , 2003, 84, 1909-1918. | 0.2 | 26 |
| 52 | Nanosecond Temperature Jump Relaxation Dynamics of Cyclic β^2 -Hairpin Peptides. <i>Biophysical Journal</i> , 2003, 84, 3874-3882. | 0.2 | 51 |
| 53 | Dynamics of the Primary Processes of Protein Folding: Helix Nucleation. <i>Journal of Physical Chemistry B</i> , 2002, 106, 487-494. | 1.2 | 82 |
| 54 | Toward an Understanding of the Role of Dynamics on Enzymatic Catalysis in Lactate Dehydrogenase. <i>Biochemistry</i> , 2002, 41, 3353-3363. | 1.2 | 50 |

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| 55 | Probing protein dynamics using temperature jump relaxation spectroscopy. <i>Current Opinion in Structural Biology</i> , 2002, 12, 628-633. | 2.6 | 97 |
| 56 | Structures of Apomyoglobin's Various Acid-Destabilized Forms. <i>Biochemistry</i> , 2001, 40, 5127-5136. | 1.2 | 34 |
| 57 | Core Formation in Apomyoglobin: Probing the Upper Reaches of the Folding Energy Landscape. <i>Biochemistry</i> , 2001, 40, 5137-5143. | 1.2 | 44 |
| 58 | There Is Communication between All Four Ca ²⁺ -Binding Sites of Calcineurin. <i>Biochemistry</i> , 2001, 40, 12094-12102. | 1.2 | 33 |
| 59 | Effect of Hexafluoroisopropanol on the Thermodynamics of Peptide Secondary Structure Formation. <i>Journal of the American Chemical Society</i> , 1999, 121, 9879-9880. | 6.6 | 76 |
| 60 | Dependence of NO Recombination Dynamics in Horse Myoglobin on Solution Glycerol Content. <i>Journal of Physical Chemistry B</i> , 1999, 103, 7969-7975. | 1.2 | 33 |
| 61 | The core of apomyoglobin E-form folds at the diffusion limit. <i>Nature Structural Biology</i> , 1998, 5, 363-365. | 9.7 | 38 |
| 62 | Infrared Studies of Fast Events in Protein Folding. <i>Accounts of Chemical Research</i> , 1998, 31, 709-716. | 7.6 | 194 |
| 63 | Time-Resolved Infrared Studies on Two Isomeric Ruthenium(II)/Rhenium(I) Complexes Containing a Nonsymmetric Quaterpyridine Bridging Ligand. <i>Inorganic Chemistry</i> , 1998, 37, 2598-2601. | 1.9 | 15 |
| 64 | FAST EVENTS IN PROTEIN FOLDING: The Time Evolution of Primary Processes. <i>Annual Review of Physical Chemistry</i> , 1998, 49, 173-202. | 4.8 | 202 |
| 65 | Mid-Infrared Spectrum of [Ru(bpy) ₃] ²⁺ . <i>Journal of the American Chemical Society</i> , 1997, 119, 7013-7018. | 6.6 | 88 |
| 66 | Fast Events in Protein Folding: Relaxation Dynamics and Structure of the I Form of Apomyoglobin. <i>Biochemistry</i> , 1997, 36, 15006-15012. | 1.2 | 69 |
| 67 | Fast Events in Protein Folding: Helix Melting and Formation in a Small Peptide. <i>Biochemistry</i> , 1996, 35, 691-697. | 1.2 | 604 |
| 68 | Time-Resolved, Step-Scan FTIR Spectroscopy of Excited States of Transition Metal Complexes. <i>Comments on Inorganic Chemistry</i> , 1996, 18, 165-188. | 3.0 | 66 |
| 69 | Application of Time-Resolved, Step-Scan Fourier Transform Infrared Spectroscopy to Excited-State Electronic Structure in Polypyridyl Complexes of Rhenium(I). <i>Inorganic Chemistry</i> , 1996, 35, 273-274. | 1.9 | 97 |
| 70 | Application of Time-Resolved Vibrational Spectroscopy to the Study of Excited-State Intercomponent Processes in Supramolecular Systems. <i>Comments on Inorganic Chemistry</i> , 1996, 18, 77-100. | 3.0 | 17 |
| 71 | Application of transient infrared spectroscopy to intramolecular energy transfer in [(phen)(CO) ₃ ReI(NC)RuII(CN)(bpy) ₂] ⁺ . <i>Journal of the American Chemical Society</i> , 1993, 115, 10996-10997. | 6.6 | 67 |
| 72 | Ultrafast electron transfer and coupled vibrational dynamics in cyanide bridged mixed-valence transition-metal dimers. <i>Journal of the American Chemical Society</i> , 1993, 115, 6398-6405. | 6.6 | 109 |

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|----|---|-----|-----------|
| 73 | Electronic coupling in cyano-bridged ruthenium polypyridine complexes and role of electronic effects on cyanide stretching frequencies. <i>Inorganic Chemistry</i> , 1992, 31, 5260-5267. | 1.9 | 164 |