

Mark A Berg

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6732566/publications.pdf>

Version: 2024-02-01

68
papers

2,157
citations

201385

27
h-index

223531

46
g-index

71
all docs

71
docs citations

71
times ranked

1780
citing authors

#	ARTICLE	IF	CITATIONS
1	Jump-precursor state emerges below the crossover temperature in supercooled α -terphenyl. Physical Review E, 2021, 103, L050601.	0.8	2
2	Nonlinear measurements of kinetics and generalized dynamical modes. II. Application to a simulation of solvation dynamics in an ionic liquid. Journal of Chemical Physics, 2021, 155, 024123.	1.2	2
3	Nonlinear measurements of kinetics and generalized dynamical modes. I. Extracting the one-dimensional Green's function from a time series. Journal of Chemical Physics, 2021, 155, 024122.	1.2	2
4	Micelle Heterogeneity from the 2D Kinetics of Solute Rotation. Journal of Physical Chemistry Letters, 2019, 10, 6885-6891.	2.1	4
5	Biphasic rate exchange in supercooled α -terphenyl from an ensemble analysis of single-molecule data. Physical Review E, 2018, 98, .	0.8	10
6	Nonparametric analysis of nonexponential and multidimensional kinetics. I. Quantifying rate dispersion, rate heterogeneity, and exchange dynamics. Journal of Chemical Physics, 2017, 146, 054104.	1.2	14
7	Measuring a hidden coordinate: Rate-exchange kinetics from 3D correlation functions. Journal of Chemical Physics, 2016, 145, 054119.	1.2	12
8	Rate and Amplitude Heterogeneity in the Solvation Response of an Ionic Liquid. Journal of Physical Chemistry Letters, 2016, 7, 504-508.	2.1	22
9	When is a single molecule heterogeneous? A multidimensional answer and its application to dynamics near the glass transition. Journal of Chemical Physics, 2015, 143, 024110.	1.2	18
10	Two-Dimensional Anisotropy Measurements Showing Local Heterogeneity in a Polymer Melt. Journal of Physical Chemistry Letters, 2014, 5, 2608-2612.	2.1	6
11	Multiple Population-Period Transient Spectroscopy (MUPPETS) of CdSe/ZnS Nanoparticles. II. Effects of High Fluence and Solvent Heating. Journal of Physical Chemistry B, 2013, 117, 15272-15284.	1.2	3
12	Rate Dispersion in the Biexciton Decay of CdSe/ZnS Nanoparticles from Multiple Population-Period Transient Spectroscopy. Journal of the American Chemical Society, 2013, 135, 1002-1005.	6.6	14
13	Multiple Population-Period Transient Spectroscopy (MUPPETS) of CdSe/ZnS Nanoparticles. I. Exciton and Biexciton Dynamics. Journal of Physical Chemistry B, 2013, 117, 15257-15271.	1.2	6
14	Multiple population-period transient spectroscopy (MUPPETS) in excitonic systems. Journal of Chemical Physics, 2013, 138, 034201.	1.2	11
15	Heterogeneity of the Electron-Trapping Kinetics in CdSe Nanoparticles. Nano Letters, 2011, 11, 3493-3498.	4.5	44
16	Heterogeneous Reaction Rates in an Ionic Liquid: Quantitative Results from Two-Dimensional Multiple Population-Period Transient Spectroscopy. Journal of Physical Chemistry A, 2011, 115, 7984-7993.	1.1	28
17	Thermal gratings and phase in high-order, transient-grating spectroscopy. Journal of Chemical Physics, 2011, 134, 144502.	1.2	8
18	Hilbert-space treatment of incoherent, time-resolved spectroscopy. I. Formalism, a tensorial classification of high-order orientational gratings and generalized MUPPETS. Journal of Chemical Physics, 2010, 132, 144105.	1.2	11

#	ARTICLE	IF	CITATIONS
19	Hilbert-space treatment of incoherent, time-resolved spectroscopy. II. Pathway description of optical multiple population-period transient spectroscopy. <i>Journal of Chemical Physics</i> , 2010, 132, 144106.	1.2	11
20	Dispersed Kinetics without Rate Heterogeneity in an Ionic Liquid Measured with Multiple Population-Period Transient Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 161-164.	2.1	29
21	Separating Sub-Ensembles on Ultrafast Timescales: Multiple-Population Period Transient Spectroscopy (MUPPETS). , 2010, , .		0
22	Dynamics of Water and Ions Near DNA: Comparison of Simulation to Time-Resolved Stokes-Shift Experiments. <i>Journal of the American Chemical Society</i> , 2009, 131, 1724-1735.	6.6	86
23	Differential heterodyne detection with diffractive optics for multidimensional transient-grating spectroscopy. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, 2357.	0.9	9
24	Nanoscale structure and dynamics of DNA. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 1229-1242.	1.3	47
25	Analyzing Nonexponential Kinetics with Multiple Population-Period Transient Spectroscopy (MUPPETS). <i>Journal of Physical Chemistry A</i> , 2008, 112, 3364-3375.	1.1	23
26	Parallels between multiple population-period transient spectroscopy and multidimensional coherence spectroscopies. <i>Journal of Chemical Physics</i> , 2008, 129, 064504.	1.2	27
27	Simultaneous time and frequency detection in femtosecond coherent Raman spectroscopy. I. Theory and model calculations. <i>Journal of Chemical Physics</i> , 2007, 127, 044306.	1.2	15
28	Simultaneous time and frequency detection in femtosecond coherent Raman spectroscopy. II. Application to acetonitrile. <i>Journal of Chemical Physics</i> , 2007, 127, 044307.	1.2	11
29	Electron-Phonon Coupling in Phenyleneethynylene Oligomers: A Nonlinear One-Dimensional Configuration-Coordinate Model. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5770-5782.	1.5	32
30	Time-Resolved Optical Spectroscopy with Multiple Population Dimensions: A General Method for Resolving Dynamic Heterogeneity. <i>ChemPhysChem</i> , 2007, 8, 1761-1765.	1.0	37
31	Coumarin base-pair replacement as a fluorescent probe of ultrafast DNA dynamics. <i>Tetrahedron</i> , 2007, 63, 3450-3456.	1.0	42
32	Well-Resolved Coherent Raman Spectra from Femtosecond Pulses. <i>Springer Series in Chemical Physics</i> , 2007, , 386-388.	0.2	1
33	Multidimensional Population Distinguishes Between Homogeneous and Heterogeneous Dynamics. <i>Springer Series in Chemical Physics</i> , 2007, , 329-331.	0.2	1
34	Role of Monovalent Counterions in the Ultrafast Dynamics of DNA. <i>Journal of Physical Chemistry B</i> , 2006, 110, 13248-13255.	1.2	30
35	Modeling the Effects of Torsional Disorder on the Spectra of Poly- and Oligo-(p-phenyleneethynylenes). <i>Journal of Physical Chemistry B</i> , 2006, 110, 18844-18852.	1.2	66
36	Ultrafast Dynamics in DNA: Fraying at the End of the Helix. <i>Journal of the American Chemical Society</i> , 2006, 128, 6885-6892.	6.6	130

#	ARTICLE	IF	CITATIONS
37	High-Resolution Raman Spectra with Femtosecond Pulses: An Example of Combined Time- and Frequency-Domain Spectroscopy. <i>Physical Review Letters</i> , 2006, 97, 267401.	2.9	16
38	Power-Law Solvation Dynamics in DNA over Six Decades in Time. <i>Journal of the American Chemical Society</i> , 2005, 127, 7270-7271.	6.6	141
39	Effect of Protein Binding on Ultrafast DNA Dynamics: Characterization of a DNA:APE1 Complex. <i>Biophysical Journal</i> , 2005, 89, 4129-4138.	0.2	32
40	Effect of lesions on the dynamics of DNA on the picosecond and nanosecond timescales using a polarity sensitive probe. <i>Nucleic Acids Research</i> , 2004, 32, 2494-2507.	6.5	55
41	Ultrafast dynamics of normal and damaged DNA. , 2004, , 479-482.		0
42	Torsional Relaxation and Friction on the Nanometer Length Scale: Comparison of Small-Molecule Rotation in Poly(dimethylsiloxane) and Poly(isobutylene). <i>Macromolecules</i> , 2003, 36, 2721-2732.	2.2	28
43	Sodium-Ion Binding to DNA: Detection by Ultrafast Time-Resolved Stokes-Shift Spectroscopy. <i>Journal of the American Chemical Society</i> , 2003, 125, 11812-11813.	6.6	33
44	Ultrafast dichroism spectroscopy of anthracene in solution. IV. Merging of inertial and diffusive motions in toluene. <i>Journal of Chemical Physics</i> , 2003, 118, 7534.	1.2	7
45	Nanoscale versus Macroscale Friction in Polymers and Small-Molecule Liquids: Anthracene Rotation in PIB and PDMS. <i>ACS Symposium Series</i> , 2003, , 177-190.	0.5	0
46	Friction on Small Objects and the Breakdown of Hydrodynamics in Solution: Rotation of Anthracene in Poly(isobutylene) from the Small-Molecule to Polymer Limits. <i>Journal of Physical Chemistry B</i> , 2002, 106, 7385-7397.	1.2	26
47	Complex Local Dynamics in DNA on the Picosecond and Nanosecond Time Scales. <i>Physical Review Letters</i> , 2002, 88, 158101.	2.9	129
48	BREAKDOWN OF HYDRODYNAMIC BEHAVIOR: SOLUTE ROTATIONAL DYNAMICS FROM THE SMALL-MOLECULE TO THE POLYMER LIMIT. , 2002, , .		0
49	Some Comparisons of LIBS Measurements Using Nanosecond and Picosecond Laser Pulses. <i>Applied Spectroscopy</i> , 2001, 55, 279-285.	1.2	80
50	Effects of Solvent Viscosity on Protein Dynamics: Infrared Vibrational Echo Experiments and Theory. <i>Journal of Physical Chemistry B</i> , 2001, 105, 1081-1092.	1.2	79
51	Excited-State Dynamics of Oligo(p-phenyleneethynylene): Quadratic Coupling and Torsional Motions. <i>Journal of the American Chemical Society</i> , 2001, 123, 6447-6448.	6.6	167
52	LIBS using dual- and ultra-short laser pulses. <i>Fresenius' Journal of Analytical Chemistry</i> , 2001, 369, 320-327.	1.5	125
53	Ultrafast dichroism spectroscopy of anthracene in solution. I. Inertial versus diffusive rotation in benzyl alcohol. <i>Journal of Chemical Physics</i> , 2001, 115, 4212-4222.	1.2	23
54	Ultrafast dichroism spectroscopy of anthracene in solution. III. Nonpolar solvation dynamics in benzyl alcohol. <i>Journal of Chemical Physics</i> , 2001, 115, 4231-4238.	1.2	13

#	ARTICLE	IF	CITATIONS
55	Ultrafast dichroism spectroscopy of anthracene in solution. II. Solvation dynamics from a one-dimensional experiment. <i>Journal of Chemical Physics</i> , 2001, 115, 4223-4230.	1.2	13
56	Raman free-induction-decay measurements in low viscosity and supercooled toluene: Vibrational dephasing by shear fluctuations. <i>Journal of Chemical Physics</i> , 2001, 114, 3662-3673.	1.2	12
57	Separating Inertial and Diffusive Rotation and Solvation for a Nonpolar Solute. <i>Springer Series in Chemical Physics</i> , 2001, , 557-559.	0.2	0
58	Ultrafast Dynamics in DNA. <i>Springer Series in Chemical Physics</i> , 2001, , 563-565.	0.2	0
59	Two-pulse echo experiments in the spectral diffusion regime. <i>Journal of Chemical Physics</i> , 2000, 113, 3233-3242.	1.2	32
60	Ultrafast dynamics in DNA. , 2000, , .		0
61	A viscoelastic continuum model of nonpolar solvation. III. Electron solvation and nonlinear coupling effects. <i>Journal of Chemical Physics</i> , 1999, 110, 8577-8588.	1.2	32
62	Measurement of Local DNA Reorganization on the Picosecond and Nanosecond Time Scales. <i>Journal of the American Chemical Society</i> , 1999, 121, 11644-11649.	6.6	158
63	A viscoelastic continuum model of non-polar solvation.. <i>Chemical Physics</i> , 1998, 233, 257-266.	0.9	27
64	Local Dynamics in DNA by Temperature-Dependent Stokes Shifts of an Intercalated Dye. <i>Journal of the American Chemical Society</i> , 1998, 120, 2449-2456.	6.6	86
65	<title>Mechanical mechanism for the ultrafast perturbation of electronic states in solution</title>. , 1994, , .		0
66	Ultrafast Raman echo experiments in the liquid phase. , 1992, , .		0
67	Structural relaxation in liquids and glasses by transient hole burning. , 1992, 1638, 12.		0
68	Reactions of vinylcyclopropane induced by multiphoton absorption of infrared radiation. <i>Journal of the American Chemical Society</i> , 1979, 101, 6468-6470.	6.6	14