Andrew H Marcus

List of Publications by Year
in descending order

68 papers	2,855 citations	186265 28 h-index	175258 52 g-index
72 all docs	72 docs citations	72 times ranked	2424 citing authors

#	Article	IF	Citations
1	Jaspamide, a modified peptide from a Jaspis sponge, with insecticidal and antifungal activity. Journal of the American Chemical Society, 1986, 108, 3123-3124.	13.7	288
2	Fluorescence-detected two-dimensional electronic coherence spectroscopy by acousto-optic phase modulation. Journal of Chemical Physics, 2007, 127, 214307.	3.0	268
3	Observations of First-Order Liquid-to-Hexatic and Hexatic-to-Solid Phase Transitions in a Confined Colloid Suspension. Physical Review Letters, 1996, 77, 2577-2580.	7.8	164
4	Coherent two-dimensional photocurrent spectroscopy in a PbS quantum dot photocell. Nature Communications, 2014, 5, 5869.	12.8	141
5	Experimental observations of non-Gaussian behavior and stringlike cooperative dynamics in concentrated quasi-two-dimensional colloidal liquids. Physical Review E, 1999, 60, 5725-5736.	2.1	137
6	Phase transitions in a confined quasi-two-dimensional colloid suspension. Physical Review E, 1997, 55, 637-656.	2.1	120
7	Conformation of self-assembled porphyrin dimers in liposome vesicles by phase-modulation 2D fluorescence spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16521-16526.	7.1	112
8	Fifty years of DNA â€œBreathingâ€: Reflections on old and new approaches. Biopolymers, 2013, 99, 923-954.	2.4	105
9	Roadmap on quantum light spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 072002.	1.5	101
10	Entangled Photon-Pair Two-Dimensional Fluorescence Spectroscopy (EPP-2DFS). Journal of Physical Chemistry B, 2013, 117, 15559-15575.	2.6	96
11	Wave packet interferometry and quantum state reconstruction by acousto-optic phase modulation. Journal of Chemical Physics, 2006, 125, 194303.	3.0	90
12	Single-molecule FRET and linear dichroism studies of DNA breathing and helicase binding at replication fork junctions. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17320-17325.	7.1	82
13	Conformation and Electronic Population Transfer in Membrane-Supported Self-Assembled Porphyrin Dimers by 2D Fluorescence Spectroscopy. Journal of Physical Chemistry B, 2012, 116, 10757-10770.	2.6	67
14	Temperature-dependent conformations of exciton-coupled Cy3 dimers in double-stranded DNA. Journal of Chemical Physics, 2018, 148, 085101.	3.0	58
15	Internally labeled Cy3/Cy5 DNA constructs show greatly enhanced photo-stability in single-molecule FRET experiments. Nucleic Acids Research, 2014, 42, 5967-5977.	14.5	57
16	Cytoskeletal-assisted dynamics of the mitochondrial reticulum in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14772-14777.	7.1	53
17	Compressed Sensing for Multidimensional Spectroscopy Experiments. Journal of Physical Chemistry Letters, 2012, 3, 2697-2702.	4.6	50
18	Solution conformation of 2-aminopurine dinucleotide determined by ultraviolet two-dimensional fluorescence spectroscopy. New Journal of Physics, 2013, 15, 025028.	2.9	49

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19	Experimental feasibility of molecular two-photon absorption with isolated time-frequency-entangled photon pairs. Physical Review Research, 2021, 3, .	3.6	41
20	Dynamics of the Mitochondrial Reticulum in Live Cells using Fourier Imaging Correlation Spectroscopy and Digital Video Microscopy. Biophysical Journal, 2000, 79, 1833-1849.	0.5	40
21	Control of nuclear centration in the C. elegans zygote by receptor-independent Gî± signaling and myosin II. Journal of Cell Biology, 2007, 178, 1177-1191.	5.2	39
22	Actin polymerization driven mitochondrial transport in mating S. cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 721-725.	7.1	39
23	Measuring local conformations and conformational disorder of (Cy3)₂dimer labeled DNA fork junctions using absorbance, circular dichroism and two-dimensional fluorescence spectroscopy. Faraday Discussions, 2019, 216, 211-235.	3.2	36
24	Quantifying the enhancement of two-photon absorption due to spectral-temporal entanglement. Optics Express, 2021, 29, 20022.	3.4	36
25	Self-diffusion in dilute quasi-two-dimensional hard sphere suspensions: Evanescent wave light scattering and video microscopy studies. Physical Review E, 1996, 53, 1765-1776.	2.1	35
26	Phase-synchronous detection of coherent and incoherent nonlinear signals. Journal of Optics (United Kingdom), 2016, 18, 015504.	2.2	35
27	Heterogeneous distribution of pyruvate dehydrogenase in the matrix of mitochondria. Mitochondrion, 2002, 1, 327-338.	3.4	32
28	5-Isothiocyanatopupukeanane from a sponge of the genus Axinyssa. Journal of Organic Chemistry, 1989, 54, 5184-5186.	3.2	31
29	Characterization of the 6-methyl isoxanthopterin (6-MI) base analog dimer, a spectroscopic probe for monitoring guanine base conformations at specific sites in nucleic acids. Nucleic Acids Research, 2012, 40, 1191-1202.	14.5	31
30	Entangled two-photon absorption by atoms and molecules: A quantum optics tutorial. Journal of Chemical Physics, 2021, 155, 081501.	3.0	30
31	How large is the quantum enhancement of two-photon absorption by time-frequency entanglement of photon pairs?. Optica, 2021, 8, 757.	9.3	27
32	Structure of complex systems using electronic excitation transport: Theory, Monte Carlo simulations, and experiments on micelle solutions. Journal of Chemical Physics, 1994, 100, 271-286.	3.0	26
33	Temperature-Dependent Conformations of a Membrane Supported Zinc Porphyrin Tweezer by 2D Fluorescence Spectroscopy. Journal of Physical Chemistry A, 2013, 117, 6171-6184.	2.5	26
34	A Single-Molecule View of the Assembly Pathway, Subunit Stoichiometry, and Unwinding Activity of the Bacteriophage T4 Primosome (helicaseâ€“primase) Complex. Biochemistry, 2013, 52, 3157-3170.	2.5	25
35	Temperature-dependent local conformations and conformational distributions of cyanine dimer labeled single-strandedâ€“double-stranded DNA junctions by 2D fluorescence spectroscopy. Journal of Chemical Physics, 2022, 156, 045101.	3.0	24
36	Nanodomain formation in a liquid polymer blend: The initial stages of phase separation. Journal of Chemical Physics, 1995, 103, 8189-8200.	3.0	23

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37	Using microsecond single-molecule FRET to determine the assembly pathways of T4 ssDNA binding protein onto model DNA replication forks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3612-E3621.	7.1	23
38	Submillisecond Conformational Transitions of Short Single-Stranded DNA Lattices by Photon Correlation Single-Molecule FÃ¶rster Resonance Energy Transfer. Journal of Physical Chemistry B, 2021, 125, 9426-9440.	2.6	19
39	Fluorescence-detected Fourier transform electronic spectroscopy by phase-tagged photon counting. Optics Express, 2020, 28, 25194.	3.4	19
40	Quantum process tomography by 2D fluorescence spectroscopy. Journal of Chemical Physics, 2015, 142, 212442.	3.0	17
41	Using Multiorder Time-Correlation Functions (TCFs) To Elucidate Biomolecular Reaction Pathways from Microsecond Single-Molecule Fluorescence Experiments. Journal of Physical Chemistry B, 2016, 120, 13003-13016.	2.6	15
42	Phaseâ€Modulated Interferometry, Spectroscopy, and Refractometry using Entangled Photon Pairs. Advanced Quantum Technologies, 2020, 3, 1900114.	3.9	15
43	Accurate Modeling of Excitonic Coupling in Cyanine Dye Cy3. Journal of Physical Chemistry A, 2021, 125, 7852-7866.	2.5	13
44	Measurement of the Dynamic Structure Function of Fluorescently Labeled Complex Fluids by Fourier Imaging Correlation Spectroscopy. Physical Review Letters, 2000, 85, 2837-2840.	7.8	12
45	Single-molecule FRET studies of the cooperative and non-cooperative binding kinetics of the bacteriophage T4 single-stranded DNA binding protein (gp32) to ssDNA lattices at replication fork junctions. Nucleic Acids Research, 2016, 44, 10691-10710.	14.5	12
46	Translational Diffusion of Fluorescent Proteins by Molecular Fourier Imaging Correlation Spectroscopy. Biophysical Journal, 2006, 91, 3482-3498.	0.5	11
47	Electronic transition moments of 6-methyl isoxanthopterin--a fluorescent analogue of the nucleic acid base guanine. Nucleic Acids Research, 2013, 41, 995-1004.	14.5	9
48	Dinucleotides as simple models of the base stacking-unstacking component of DNA â€˜breathingâ€™ mechanisms. Nucleic Acids Research, 2021, 49, 1872-1885.	14.5	9
49	Structure and dynamics of fluorescently labeled complex fluids by Fourier imaging correlation spectroscopy. Physical Review E, 2000, 62, 8245-8257.	2.1	8
50	Electric Dipole Transition Moments and Solvent-Dependent Interactions of Fluorescent Boronâ€“Nitrogen Substituted Indole Derivatives. Journal of Physical Chemistry B, 2015, 119, 7985-7993.	2.6	8
51	Local DNA Base Conformations and Ligand Intercalation in DNA Constructs Containing OpticalÂProbes. Biophysical Journal, 2019, 117, 1101-1115.	0.5	8
52	The Many Roles of Binding Cooperativity in the Control of DNA Replication. Biophysical Journal, 2019, 117, 2043-2046.	0.5	8
53	Modeling the Electronic Absorption Spectra of the Indocarbocyanine Cy3. Molecules, 2022, 27, 4062.	3.8	8
54	II. Kinetic Pathways of Switching Optical Conformations in DsRed by 2D Fourier Imaging Correlation Spectroscopy. Journal of Physical Chemistry B, 2009, 113, 6854-6860.	2.6	7

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55	Subcellular Dynamics and Protein Conformation Fluctuations Measured by Fourier Imaging Correlation Spectroscopy. Annual Review of Physical Chemistry, 2010, 61, 111-128.	10.8	7
56	Sequence-Dependent Conformational Heterogeneity and Proton-Transfer Reactivity of the Fluorescent Guanine Analogue 6-Methyl Isoxanthopterin (6-MI) in DNA. Journal of Physical Chemistry B, 2015, 119, 12798-12807.	2.6	3
57	Unusual structure in a quasi-two-dimensional binary colloid fluid. Chemical Physics Letters, 1998, 294, 217-222.	2.6	2
58	Direct measurement of relative and collective diffusion in a dilute binary colloidal suspension. Journal of Chemical Physics, 2005, 122, 234909.	3.0	2
59	Chapter 6 Fourier Imaging Correlation Spectroscopy for Cellular Structureâ€“Function. Methods in Cell Biology, 2008, 90, 117-137.	1.1	2
60	I. Conformational Dynamics of Biological Macromolecules by Polarization-Modulated Fourier Imaging Correlation Spectroscopy. Journal of Physical Chemistry B, 2009, 113, 6847-6853.	2.6	2
61	Two-Photon Absorption in Molecules by time-frequency-entangled photon pairs: the roles of photon-number correlations and spectral correlations. , 2021, , .		1
62	Dynamics of Conformational Transitions in DsRed as Detected by Polarization-Modulated MFICS. Biophysical Journal, 2009, 96, 208a.	0.5	0
63	Biography of Michael D. Fayer. Journal of Physical Chemistry B, 2013, 117, 15237-15237.	2.6	0
64	Tribute to Michael D. Fayer. Journal of Physical Chemistry B, 2013, 117, 15235-15236.	2.6	0
65	Binding of the Single-Stranded DNA Binding Protein (gp32) of T4 Bacteriophage Induces Position-Specific Local Conformational Changes in DNA Lattices that can be Monitored by Fluorescent Probes. Biophysical Journal, 2016, 110, 239a.	0.5	0
66	Using Site Specific Fluorescent Probes to Examine Replication Fork Destabilization by Regulatory Proteins of the Bacteriophage T4 DNA Replication Complex. Biophysical Journal, 2017, 112, 314a-315a.	0.5	0
67	Single Molecule Flourescence Methods to Monitor Site-Specific Fluctuations of Cy3 Monomer and Dimer Labeled DNA Constructs within Macromolecular Machines. Biophysical Journal, 2021, 120, 184a.	0.5	0
68	Determining local nucleic acid base conformations by fourier transform spectroscopy of 6-methyl isoxanthopterin (6-MI) substituted DNA fork constructs. Biophysical Journal, 2022, 121, 62a.	0.5	0