

Richard A Mathies

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/919428/publications.pdf>

Version: 2024-02-01

195
papers

20,182
citations

9264

74
h-index

11052

137
g-index

199
all docs

199
docs citations

199
times ranked

12816
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization of Fluorescence Labeling of Trace Analytes: Application to Amino Acid Biosignature Detection with Pacific Blue. <i>Analytical Chemistry</i> , 2022, 94, 1240-1247.	6.5	7
2	Science Objectives for Flagship-Class Mission Concepts for the Search for Evidence of Life at Enceladus. <i>Astrobiology</i> , 2022, 22, 685-712.	3.0	21
3	Method for detecting and quantitating capture of organic molecules in hypervelocity impacts. <i>MethodsX</i> , 2021, 8, 101239.	1.6	5
4	Venus, an Astrobiology Target. <i>Astrobiology</i> , 2021, 21, 1163-1185.	3.0	38
5	On the Feasibility of Informative Biosignature Measurements Using an Enceladus Plume Organic Analyzer. <i>Planetary Science Journal</i> , 2021, 2, 163.	3.6	6
6	Quantitative evaluation of the feasibility of sampling the ice plumes at Enceladus for biomarkers of extraterrestrial life. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	9
7	Feasibility of Enceladus plume biosignature analysis: Successful capture of organic ice particles in hypervelocity impacts. <i>Meteoritics and Planetary Science</i> , 2020, 55, .	1.6	10
8	Fabrication of high-quality glass microfluidic devices for bioanalytical and space flight applications. <i>MethodsX</i> , 2020, 7, 101043.	1.6	12
9	Characterizing organic particle impacts on inert metal surfaces: Foundations for capturing organic molecules during hypervelocity transits of Enceladus plumes. <i>Meteoritics and Planetary Science</i> , 2020, 55, 465-479.	1.6	19
10	Monitoring transient cell-to-cell interactions in a multi-layered and multi-functional allergy-on-a-chip system. <i>Lab on A Chip</i> , 2019, 19, 1916-1921.	6.0	12
11	Rapid and Fully Microfluidic Ebola Virus Detection with CRISPR-Cas13a. <i>ACS Sensors</i> , 2019, 4, 1048-1054.	7.8	215
12	Resonance Raman Characterization of Tetracene Monomer and Nanocrystals: Excited State Lattice Distortions With Implications For Efficient Singlet Fission. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3863-3875.	2.5	5
13	Difference Bands in Time-Resolved Femtosecond Stimulated Raman Spectra of Photoexcited Intermolecular Electron Transfer from Chloronaphthalene to Tetracyanoethylene. <i>Journal of Physical Chemistry A</i> , 2018, 122, 3594-3605.	2.5	18
14	Evidence for a vibrational phase-dependent isotope effect on the photochemistry of vision. <i>Nature Chemistry</i> , 2018, 10, 449-455.	13.6	75
15	Excited-state vibrational dynamics toward the polaron in methylammonium lead iodide perovskite. <i>Nature Communications</i> , 2018, 9, 2525.	12.8	129
16	Operation of pneumatically-actuated membrane-based microdevices for in situ analysis of extraterrestrial organic molecules after prolonged storage and in multiple orientations with respect to Earth's gravitational field. <i>Sensors and Actuators B: Chemical</i> , 2018, 272, 229-235.	7.8	8
17	Multiplexed efficient on-chip sample preparation and sensitive amplification-free detection of Ebola virus. <i>Biosensors and Bioelectronics</i> , 2017, 91, 489-496.	10.1	91
18	Critical Role of Methylammonium Librational Motion in Methylammonium Lead Iodide (CH ₃ NH ₃ PbI ₃) Perovskite Photochemistry. <i>Nano Letters</i> , 2017, 17, 4151-4157.	9.1	55

#	ARTICLE	IF	CITATIONS
19	Microfluidic System for Detection of Viral RNA in Blood Using a Barcode Fluorescence Reporter and a Photocleavable Capture Probe. <i>Analytical Chemistry</i> , 2017, 89, 12433-12440.	6.5	41
20	Feasibility of Detecting Bioorganic Compounds in Enceladus Plumes with the Enceladus Organic Analyzer. <i>Astrobiology</i> , 2017, 17, 902-912.	3.0	35
21	Non-Bonded Interactions Drive the Subpicosecond Bilin Photoisomerization in the P _{fr} State of Phytochrome Cph1. <i>ChemPhysChem</i> , 2016, 17, 369-374.	2.1	15
22	Femtosecond Stimulated Raman Spectroscopy. <i>ChemPhysChem</i> , 2016, 17, 1217-1217.	2.1	2
23	Femtosecond Stimulated Raman Spectroscopy. <i>ChemPhysChem</i> , 2016, 17, 1224-1251.	2.1	153
24	Forensic Typing of Single Cells Using Droplet Microfluidics. , 2016, , 71-94.		0
25	High-performance detection of somatic D-loop mutation in urothelial cell carcinoma patients by polymorphism ratio sequencing. <i>Journal of Molecular Medicine</i> , 2016, 94, 1015-1024.	3.9	7
26	End-to-end automated microfluidic platform for synthetic biology: from design to functional analysis. <i>Journal of Biological Engineering</i> , 2016, 10, 3.	4.7	54
27	Femtosecond Stimulated Raman Exposes the Role of Vibrational Coherence in Condensed-Phase Photoreactivity. <i>Accounts of Chemical Research</i> , 2016, 49, 616-625.	15.6	83
28	Pneumatically actuated microvalve circuits for programmable automation of chemical and biochemical analysis. <i>Lab on A Chip</i> , 2016, 16, 812-819.	6.0	59
29	Microfluidic hydrogel arrays for direct genotyping of clinical samples. <i>Biosensors and Bioelectronics</i> , 2016, 79, 371-378.	10.1	21
30	Optofluidic analysis system for amplification-free, direct detection of Ebola infection. <i>Scientific Reports</i> , 2015, 5, 14494.	3.3	104
31	Reactive and unreactive pathways in a photochemical ring opening reaction from 2D femtosecond stimulated Raman. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 9231-9240.	2.8	42
32	Microfluidic Linear Hydrogel Array for Multiplexed Single Nucleotide Polymorphism (SNP) Detection. <i>Analytical Chemistry</i> , 2015, 87, 3165-3170.	6.5	40
33	Single cell measurement of telomerase expression and splicing using microfluidic emulsion cultures. <i>Nucleic Acids Research</i> , 2015, 43, e104-e104.	14.5	3
34	Exciton Mobility in Organic Photovoltaic Heterojunctions from Femtosecond Stimulated Raman. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2919-2923.	4.6	16
35	Molecular Orientation and Optical Properties of 3,3'-Diethylthiatricarbocyanine Iodide Adsorbed to Gold Surfaces: Consequences for Surface-Enhanced Resonance Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9980-9987.	3.1	14
36	Supramolecular Ga ₄ L ₆ Cage Photosensitizes 1,3-Rearrangement of Encapsulated Guest via Photoinduced Electron Transfer. <i>Journal of the American Chemical Society</i> , 2015, 137, 10128-10131.	13.7	92

#	ARTICLE	IF	CITATIONS
37	A coherent picture of vision. <i>Nature Chemistry</i> , 2015, 7, 945-947.	13.6	32
38	Minimizing inhibition of PCR-STR typing using digital agarose droplet microfluidics. <i>Forensic Science International: Genetics</i> , 2015, 14, 203-209.	3.1	18
39	Integration of programmable microfluidics and on-chip fluorescence detection for biosensing applications. <i>Biomicrofluidics</i> , 2014, 8, 054111.	2.4	47
40	Single-Cell Forensic Short Tandem Repeat Typing within Microfluidic Droplets. <i>Analytical Chemistry</i> , 2014, 86, 703-712.	6.5	45
41	Photoactivated Bioconjugation Between <i>ortho</i> -Azidophenols and Anilines: A Facile Approach to Biomolecular Photopatterning. <i>Journal of the American Chemical Society</i> , 2014, 136, 12600-12606.	13.7	39
42	Characterization of a Conical Intersection in a Charge-Transfer Dimer with Two-Dimensional Time-Resolved Stimulated Raman Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2014, 118, 4955-4965.	2.5	63
43	Chromophore Dynamics in the PYP Photocycle from Femtosecond Stimulated Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2014, 118, 659-667.	2.6	44
44	THE FIRST STEP IN VISION: VISUALIZING WAVEPACKET MOTION THROUGH A CONICAL INTERSECTION. , 2014, , .		0
45	Conical intersection dynamics in Rhodopsin and its analog isorhodopsin. , 2013, , .		0
46	Electron Transfer Dynamics of Triphenylamine Dyes Bound to TiO ₂ Nanoparticles from Femtosecond Stimulated Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6990-6997.	3.1	29
47	Single molecule quantitation and sequencing of rare translocations using microfluidic nested digital PCR. <i>Nucleic Acids Research</i> , 2013, 41, e159-e159.	14.5	33
48	Rapid fabrication of nickel molds for prototyping embossed plastic microfluidic devices. <i>Lab on A Chip</i> , 2013, 13, 1468.	6.0	42
49	Digitally programmable microfluidic automaton for multiscale combinatorial mixing and sample processing. <i>Lab on A Chip</i> , 2013, 13, 288-296.	6.0	50
50	Universal Microfluidic Automaton for Autonomous Sample Processing: Application to the Mars Organic Analyzer. <i>Analytical Chemistry</i> , 2013, 85, 7682-7688.	6.5	65
51	Low Frequency Resonant Impulsive Raman Modes Reveal Inversion Mechanism for Azobenzene. <i>Journal of Physical Chemistry A</i> , 2013, 117, 11472-11478.	2.5	22
52	Optimally shaped narrowband picosecond pulses for femtosecond stimulated Raman spectroscopy. <i>Optics Express</i> , 2013, 21, 21685.	3.4	26
53	Probing structural evolution along multidimensional reaction coordinates with femtosecond stimulated Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 405-414.	2.8	65
54	Microfabricated Linear Hydrogel Microarray for Single-Nucleotide Polymorphism Detection. <i>Analytical Chemistry</i> , 2012, 84, 963-970.	6.5	16

#	ARTICLE	IF	CITATIONS
55	Structural Dynamics of a Noncovalent Charge Transfer Complex from Femtosecond Stimulated Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2012, 116, 10453-10460.	2.6	22
56	Conformational Homogeneity and Excited-State Isomerization Dynamics of the Bilin Chromophore in Phytochrome Cph1 from Resonance Raman Intensities. <i>Biophysical Journal</i> , 2012, 102, 709-717.	0.5	21
57	Lifting Gate Polydimethylsiloxane Microvalves and Pumps for Microfluidic Control. <i>Analytical Chemistry</i> , 2012, 84, 2067-2071.	6.5	94
58	Cellular Microfabrication: Observing Intercellular Interactions Using Lithographically-Defined DNA Capture Sequences. <i>Langmuir</i> , 2012, 28, 8120-8126.	3.5	20
59	Photoexcited structural dynamics of an azobenzene analog 4-nitro-4'-dimethylamino-azobenzene from femtosecond stimulated Raman. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 6298.	2.8	36
60	Detection of mitochondrial deoxyribonucleic acid alterations in urine from urothelial cell carcinoma patients. <i>International Journal of Cancer</i> , 2012, 131, 158-164.	5.1	23
61	Direct Attachment of Microbial Organisms to Material Surfaces Through Sequence-Specific DNA Hybridization. <i>Advanced Materials</i> , 2012, 24, 2380-2385.	21.0	32
62	Analysis of Carbonaceous Biomarkers with the Mars Organic Analyzer Microchip Capillary Electrophoresis System: Carboxylic Acids. <i>Astrobiology</i> , 2011, 11, 519-528.	3.0	26
63	Single-Cell Multiplex Gene Detection and Sequencing with Microfluidically Generated Agarose Emulsions. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 390-395.	13.8	129
64	Conical intersection dynamics in a rhodopsin analog: 9-cis isorhodopsin. , 2011, , .		0
65	Analysis of carbonaceous biomarkers with the Mars Organic Analyzer microchip capillary electrophoresis system: Aldehydes and ketones. <i>Electrophoresis</i> , 2010, 31, 3642-3649.	2.4	30
66	Conical intersection dynamics of the primary photoisomerization event in vision. <i>Nature</i> , 2010, 467, 440-443.	27.8	779
67	Microvalve Enabled Digital Microfluidic Systems for High-Performance Biochemical and Genetic Analysis. <i>Journal of the Association for Laboratory Automation</i> , 2010, 15, 455-463.	2.8	35
68	Femtosecond Stimulated Raman Spectroscopy. , 2010, , .		0
69	Multichannel Capillary Electrophoresis Microdevice and Instrumentation for in Situ Planetary Analysis of Organic Molecules and Biomarkers. <i>Analytical Chemistry</i> , 2010, 82, 2372-2379.	6.5	63
70	High-Performance Single Cell Genetic Analysis Using Microfluidic Emulsion Generator Arrays. <i>Analytical Chemistry</i> , 2010, 82, 3183-3190.	6.5	210
71	A digital microfluidic platform for the automation of quantitative biomolecular assays. <i>Lab on A Chip</i> , 2010, 10, 685-691.	6.0	53
72	Ultrafast excited-state isomerization in phytochrome revealed by femtosecond stimulated Raman spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 1784-1789.	7.1	190

#	ARTICLE	IF	CITATIONS
73	Integrated microfluidic systems for high-performance genetic analysis. Trends in Biotechnology, 2009, 27, 572-581.	9.3	125
74	Mapping GFP structure evolution during proton transfer with femtosecond Raman spectroscopy. Nature, 2009, 462, 200-204.	27.8	410
75	Femtosecond Time-Resolved Stimulated Raman Reveals the Birth of Bacteriorhodopsin's J and K Intermediates. Journal of the American Chemical Society, 2009, 131, 7592-7597.	13.7	73
76	Polymerase Chain Reaction-Capillary Electrophoresis Genetic Analysis Microdevice with In-Line Affinity Capture Sample Injection. Analytical Chemistry, 2009, 81, 1371-1377.	6.5	34
77	Enhanced Amine and Amino Acid Analysis Using Pacific Blue and the Mars Organic Analyzer Microchip Capillary Electrophoresis System. Analytical Chemistry, 2009, 81, 2537-2544.	6.5	87
78	Homogeneity of Phytochrome Cph1 Vibronic Absorption Revealed by Resonance Raman Intensity Analysis. Journal of the American Chemical Society, 2009, 131, 13946-13948.	13.7	38
79	Polycyclic Aromatic Hydrocarbon Analysis with the Mars Organic Analyzer Microchip Capillary Electrophoresis System. Analytical Chemistry, 2009, 81, 790-796.	6.5	61
80	Probing Interfacial Electron Transfer in Coumarin 343 Sensitized TiO ₂ Nanoparticles with Femtosecond Stimulated Raman. Journal of the American Chemical Society, 2009, 131, 15630-15632.	13.7	75
81	Direct Cell Surface Modification with DNA for the Capture of Primary Cells and the Investigation of Myotube Formation on Defined Patterns. Langmuir, 2009, 25, 6985-6991.	3.5	135
82	DNA-barcode directed capture and electrochemical metabolic analysis of single mammalian cells on a microelectrode array. Lab on A Chip, 2009, 9, 2010.	6.0	44
83	PMMA/PDMS valves and pumps for disposable microfluidics. Lab on A Chip, 2009, 9, 3088.	6.0	150
84	Capillary Electrophoresis Analysis of Organic Amines and Amino Acids in Saline and Acidic Samples Using the Mars Organic Analyzer. Astrobiology, 2009, 9, 823-831.	3.0	33
85	Immunomagnetic bead-based cell concentration microdevice for dilute pathogen detection. Biomedical Microdevices, 2008, 10, 909-917.	2.8	81
86	Femtosecond Raman-Induced Kerr effect spectroscopy. Journal of Raman Spectroscopy, 2008, 39, 1526-1530.	2.5	26
87	Resonance Raman Cross-Sections and Vibronic Analysis of Rhodamine 6G from Broadband Stimulated Raman Spectroscopy. ChemPhysChem, 2008, 9, 697-699.	2.1	222
88	High-Throughput Single Copy DNA Amplification and Cell Analysis in Engineered Nanoliter Droplets. Analytical Chemistry, 2008, 80, 3522-3529.	6.5	196
89	Integrated microfluidic bioprocessor for single-cell gene expression analysis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20173-20178.	7.1	216
90	Femtosecond Time-Resolved Optical and Raman Spectroscopy of Photoinduced Spin Crossover: Temporal Resolution of Low-to-High Spin Optical Switching. Journal of the American Chemical Society, 2008, 130, 14105-14107.	13.7	149

#	ARTICLE	IF	CITATIONS
91	Development of a Tunable Femtosecond Stimulated Raman Apparatus and Its Application to \hat{I}^2 -Carotene. <i>Journal of Physical Chemistry B</i> , 2008, 112, 4826-4832.	2.6	56
92	Origin of negative and dispersive features in anti-Stokes and resonance femtosecond stimulated Raman spectroscopy. <i>Journal of Chemical Physics</i> , 2008, 129, 064507.	3.0	71
93	Femtosecond broadband Stimulated Raman Spectroscopy. , 2008, , .		0
94	Polarization dependence of vibrational coupling signals in femtosecond stimulated Raman spectroscopy. <i>Journal of Chemical Physics</i> , 2007, 127, 124501.	3.0	21
95	Self-assembled cellular microarrays patterned using DNA barcodes. <i>Lab on A Chip</i> , 2007, 7, 1442.	6.0	59
96	Micropneumatic Digital Logic Structures for Integrated Microdevice Computation and Control. <i>Journal of Microelectromechanical Systems</i> , 2007, 16, 1378-1385.	2.5	57
97	Integrated Affinity Capture, Purification, and Capillary Electrophoresis Microdevice for Quantitative Double-Stranded DNA Analysis. <i>Analytical Chemistry</i> , 2007, 79, 8549-8556.	6.5	36
98	Inline Injection Microdevice for Attomole-Scale Sanger DNA Sequencing. <i>Analytical Chemistry</i> , 2007, 79, 4499-4506.	6.5	40
99	Organic amine biomarker detection in the Yungay region of the Atacama Desert with the Urey instrument. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	49
100	Application of the Mars Organic Analyzer to Nucleobase and Amine Biomarker Detection. <i>Astrobiology</i> , 2006, 6, 824-837.	3.0	34
101	Development and multiplexed control of latching pneumatic valves using microfluidic logical structures. <i>Lab on A Chip</i> , 2006, 6, 623.	6.0	224
102	Microfluidic Serial Dilution Circuit. <i>Analytical Chemistry</i> , 2006, 78, 7522-7527.	6.5	60
103	Programmable Cell Adhesion Encoded by DNA Hybridization. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 896-901.	13.8	165
104	Direct observation of the ultrafast intersystem crossing in tris(2,2'-bipyridine)ruthenium(II) using femtosecond stimulated Raman spectroscopy. <i>Molecular Physics</i> , 2006, 104, 1275-1282.	1.7	99
105	Nitric Oxide Binding to Prokaryotic Homologs of the Soluble Guanylate Cyclase \hat{I}^2 1 H-NOX Domain. <i>Journal of Biological Chemistry</i> , 2006, 281, 21892-21902.	3.4	66
106	Generation of narrow-bandwidth picosecond visible pulses from broadband femtosecond pulses for femtosecond stimulated Raman. <i>Applied Physics Letters</i> , 2006, 89, 121124.	3.3	40
107	Direct Observation of Anharmonic Coupling in the Time Domain with Femtosecond Stimulated Raman Scattering. <i>Physical Review Letters</i> , 2006, 96, 238303.	7.8	55
108	Microfabricated bioprocessor for integrated nanoliter-scale Sanger DNA sequencing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 7240-7245.	7.1	252

#	ARTICLE	IF	CITATIONS
109	Development and evaluation of a microdevice for amino acid biomarker detection and analysis on Mars. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1041-1046.	7.1	257
110	An integrated microfluidic processor for single nucleotide polymorphism-based DNA computing. Lab on A Chip, 2005, 5, 1033.	6.0	59
111	Femtosecond Stimulated Raman Study of Excited-State Evolution in Bacteriorhodopsin. Journal of Physical Chemistry B, 2005, 109, 10449-10457.	2.6	129
112	Microfluidic Device for Electric Field-Driven Single-Cell Capture and Activation. Analytical Chemistry, 2005, 77, 6935-6941.	6.5	64
113	Dependence of line shapes in femtosecond broadband stimulated Raman spectroscopy on pump-probe time delay. Journal of Chemical Physics, 2005, 122, 024505.	3.0	47
114	Structural Observation of the Primary Isomerization in Vision with Femtosecond-Stimulated Raman. Science, 2005, 310, 1006-1009.	12.6	600
115	Femtosecond Time-Resolved Stimulated Raman Spectroscopy of the S ₂ (1Bu ⁺) Excited State of β -Carotene. Journal of Physical Chemistry A, 2004, 108, 5921-5925.	2.5	109
116	Theory of femtosecond stimulated Raman spectroscopy. Journal of Chemical Physics, 2004, 121, 3632-3642.	3.0	140
117	Femtosecond broadband stimulated Raman spectroscopy: Apparatus and methods. Review of Scientific Instruments, 2004, 75, 4971-4980.	1.3	285
118	Chiral separation of fluorescamine-labeled amino acids using microfabricated capillary electrophoresis devices for extraterrestrial exploration. Journal of Chromatography A, 2003, 1021, 191-199.	3.7	95
119	Vibrational structure of the S ₂ (1Bu) excited state of diphenyloctatetraene observed by femtosecond stimulated Raman spectroscopy. Chemical Physics Letters, 2003, 382, 81-86.	2.6	33
120	Monolithic membrane valves and diaphragm pumps for practical large-scale integration into glass microfluidic devices. Sensors and Actuators B: Chemical, 2003, 89, 315-323.	7.8	458
121	Femtosecond Broadband Stimulated Raman: A New Approach for High-Performance Vibrational Spectroscopy. Applied Spectroscopy, 2003, 57, 1317-1323.	2.2	121
122	Femtosecond Time-Resolved Stimulated Raman Spectroscopy: Application to the Ultrafast Internal Conversion in β -Carotene. Journal of Physical Chemistry A, 2003, 107, 8208-8214.	2.5	184
123	Polymorphism Ratio Sequencing: A New Approach for Single Nucleotide Polymorphism Discovery and Genotyping. Genome Research, 2003, 13, 287-293.	5.5	34
124	High throughput DNA sequencing with a microfabricated 96-lane capillary array electrophoresis bioprocessor. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 574-579.	7.1	251
125	Microfabricated 384-Lane Capillary Array Electrophoresis Bioanalyzer for Ultrahigh-Throughput Genetic Analysis. Analytical Chemistry, 2002, 74, 5076-5083.	6.5	271
126	Wavelength Dependent Cis-Trans Isomerization in Vision. Biochemistry, 2001, 40, 13774-13778.	2.5	163

#	ARTICLE	IF	CITATIONS
127	Fully integrated PCR-capillary electrophoresis microsystem for DNA analysis. <i>Lab on A Chip</i> , 2001, 1, 102.	6.0	270
128	Energy-Transfer Cassette Labeling for Capillary Array Electrophoresis Short Tandem Repeat DNA Fragment Sizing. <i>Bioconjugate Chemistry</i> , 2001, 12, 493-500.	3.6	22
129	Resonance Raman Structural Evidence that the Cis-to-Trans Isomerization in Rhodopsin Occurs in Femtoseconds. <i>Journal of Physical Chemistry B</i> , 2001, 105, 1240-1249.	2.6	56
130	Fluorescence and Resonance Raman Spectra of the Aqueous Solvated Electron. <i>Journal of Physical Chemistry A</i> , 2001, 105, 10952-10960.	2.5	62
131	Chromophore Structure in Lumirhodopsin and Metarhodopsin I by Time-Resolved Resonance Raman Microchip Spectroscopy. <i>Biochemistry</i> , 2001, 40, 7929-7936.	2.5	56
132	High-Pressure Gel Loader for Capillary Array Electrophoresis Microchannel Plates. <i>BioTechniques</i> , 2001, 31, 1150-1154.	1.8	34
133	Genotyping Energy-Transfer-Cassette-labeled Short-Tandem-Repeat Amplicons with Capillary Array Electrophoresis Microchannel Plates. <i>Clinical Chemistry</i> , 2001, 47, 1614-1621.	3.2	41
134	High speed single nucleotide polymorphism typing of a hereditary haemochromatosis mutation with capillary array electrophoresis microplates. <i>Electrophoresis</i> , 2000, 21, 2352-2358.	2.4	50
135	Turn Geometry for Minimizing Band Broadening in Microfabricated Capillary Electrophoresis Channels. <i>Analytical Chemistry</i> , 2000, 72, 3030-3037.	6.5	172
136	High speed single nucleotide polymorphism typing of a hereditary haemochromatosis mutation with capillary array electrophoresis microplates. <i>Electrophoresis</i> , 2000, 21, 2352-2358.	2.4	3
137	Time-Resolved Ultraviolet Resonance Raman of Protein Structural Changes in The KI-Intermediate Of Bacteriorhodopsin. <i>Laser Chemistry</i> , 1999, 19, 165-168.	0.5	6
138	Ultra-high throughput rotary capillary array electrophoresis scanner for fluorescent DNA sequencing and analysis. <i>Electrophoresis</i> , 1999, 20, 1508-1517.	2.4	72
139	Picosecond time-resolved Raman system for studying photochemical reaction dynamics: application to the primary events in vision. <i>Journal of Raman Spectroscopy</i> , 1999, 30, 777-783.	2.5	35
140	Single-Molecule Detection of DNA Separations in Microfabricated Capillary Electrophoresis Chips Employing Focused Molecular Streams. <i>Analytical Chemistry</i> , 1999, 71, 5137-5145.	6.5	134
141	Optimization of High-Speed DNA Sequencing on Microfabricated Capillary Electrophoresis Channels. <i>Analytical Chemistry</i> , 1999, 71, 566-573.	6.5	221
142	Radial Capillary Array Electrophoresis Microplate and Scanner for High-Performance Nucleic Acid Analysis. <i>Analytical Chemistry</i> , 1999, 71, 5354-5361.	6.5	269
143	Ultra-high throughput rotary capillary array electrophoresis scanner for fluorescent DNA sequencing and analysis. <i>Electrophoresis</i> , 1999, 20, 1508-1517.	2.4	3
144	Photons, Femtoseconds and Dipolar Interactions: A Molecular Picture of the Primary Events in Vision. <i>Novartis Foundation Symposium</i> , 1999, 224, 70-101.	1.1	15

#	ARTICLE	IF	CITATIONS
145	Microfabrication Technology for the Production of Capillary Array Electrophoresis Chips. <i>Biomedical Microdevices</i> , 1998, 1, 7-26.	2.8	121
146	A three-wavelength labeling approach for DNA sequencing using energy transfer primers and capillary electrophoresis. <i>Electrophoresis</i> , 1998, 19, 1403-1414.	2.4	13
147	Vibrational Assignment of Torsional Normal Modes of Rhodopsin: A Probing Excited-State Isomerization Dynamics along the Reactive C11C12 Torsion Coordinate. <i>Journal of Physical Chemistry B</i> , 1998, 102, 2787-2806.	2.6	107
148	High-throughput genetic analysis using microfabricated 96-sample capillary array electrophoresis microplates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 2256-2261.	7.1	255
149	High-Speed DNA Genotyping Using Microfabricated Capillary Array Electrophoresis Chips. <i>Analytical Chemistry</i> , 1997, 69, 2181-2186.	6.5	333
150	Ultraviolet Resonance Raman Examination of the Light-Induced Protein Structural Changes in Rhodopsin Activation. <i>Biochemistry</i> , 1997, 36, 13153-13159.	2.5	40
151	Multiplex dsDNA Fragment Sizing Using Dimeric Intercalation Dyes and Capillary Array Electrophoresis: Ionic Effects on the Stability and Electrophoretic Mobility of DNA-Dye Complexes. <i>Analytical Chemistry</i> , 1997, 69, 1355-1363.	6.5	43
152	Microsatellite-based cancer detection using capillary array electrophoresis and energy-transfer fluorescent primers. <i>Electrophoresis</i> , 1997, 18, 1742-1749.	2.4	73
153	Femtosecond time-resolved spectroscopy of the primary photochemistry of phytochrome. <i>Biospectroscopy</i> , 1997, 3, 421-433.	0.6	53
154	Femtosecond time-resolved spectroscopy of the primary photochemistry of phytochrome. , 1997, 3, 421.		1
155	Retinal Analog Study of the Role of Steric Interactions in the Excited State Isomerization Dynamics of Rhodopsin. <i>Biochemistry</i> , 1996, 35, 16230-16240.	2.5	92
156	Functional Integration of PCR Amplification and Capillary Electrophoresis in a Microfabricated DNA Analysis Device. <i>Analytical Chemistry</i> , 1996, 68, 4081-4086.	6.5	741
157	High-resolution capillary array electrophoretic sizing of multiplexed short tandem repeat loci using energy-transfer fluorescent primers. <i>Electrophoresis</i> , 1996, 17, 1485-1490.	2.4	55
158	DNA sequencing using a four-color confocal fluorescence capillary array scanner. <i>Electrophoresis</i> , 1996, 17, 1852-1859.	2.4	107
159	Energy transfer primers: A new fluorescence labeling paradigm for DNA sequencing and analysis. <i>Nature Medicine</i> , 1996, 2, 246-249.	30.7	101
160	Protein Dynamics in the Bacteriorhodopsin Photocycle: A Nanosecond Step-Scan FTIR Investigation of the KL to L Transition. <i>The Journal of Physical Chemistry</i> , 1996, 100, 16026-16033.	2.9	70
161	Spontaneous Emission Study of the Femtosecond Isomerization Dynamics of Rhodopsin. <i>The Journal of Physical Chemistry</i> , 1996, 100, 14526-14532.	2.9	106
162	Femtosecond Spectroscopy of a 13-Demethylrhodopsin Visual Pigment Analogue: The Role of Nonbonded Interactions in the Isomerization Process. <i>The Journal of Physical Chemistry</i> , 1996, 100, 17388-17394.	2.9	65

#	ARTICLE	IF	CITATIONS
163	Fluorescence energy transfer dye-labeled primers for DNA sequencing and analysis.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 4347-4351.	7.1	256
164	Ultrafast Spectroscopy of Rhodopsins â€” Photochemistry at Its Best!. Israel Journal of Chemistry, 1995, 35, 211-226.	2.3	104
165	Determination of Pericyclic Photochemical Reaction Dynamics with Resonance Raman Spectroscopy. The Journal of Physical Chemistry, 1994, 98, 5597-5606.	2.9	78
166	Excitedâ€state structure and photochemical ringâ€opening dynamics of 1,3,5â€cycloâ€octatriene from absolute resonance Raman intensities. Journal of Chemical Physics, 1994, 100, 2492-2504.	3.0	12
167	Vibrationally coherent photochemistry in the femtosecond primary event of vision. Science, 1994, 266, 422-424.	12.6	619
168	Excitedâ€state structure and electronic dephasing time of Nile blue from absolute resonance Raman intensities. Journal of Chemical Physics, 1992, 96, 8037-8045.	3.0	81
169	Effective Rejection of Fluorescence Interference in Raman Spectroscopy Using a Shifted Excitation Difference Technique. Applied Spectroscopy, 1992, 46, 707-711.	2.2	284
170	Capillary array electrophoresis: an approach to high-speed, high-throughput DNA sequencing. Nature, 1992, 359, 167-169.	27.8	214
171	The first step in vision: femtosecond isomerization of rhodopsin. Science, 1991, 254, 412-415.	12.6	821
172	From Femtoseconds to Biology: Mechanism of Bacteriorhodopsin's Light-Driven Proton Pump. Annual Review of Biophysics and Biophysical Chemistry, 1991, 20, 491-518.	12.2	540
173	RESONANCE RAMAN SPECTRA OF BACTERIORHODOPSIN MUTANTS WITH SUBSTITUTIONS AT ASP-85, ASP-96, AND ARG-82. Photochemistry and Photobiology, 1991, 53, 341-346.	2.5	19
174	From femtoseconds to biology: Mechanism of bacteriorhodopsinâ€™s light-driven proton pump. Journal of Chemical Sciences, 1991, 103, 283-293.	1.5	9
175	ULTRAVIOLET RESONANCE RAMAN SPECTROSCOPY OF BACTERIORHODOPSIN. Photochemistry and Photobiology, 1990, 52, 605-607.	2.5	10
176	Resonance Raman analysis of the Pr and Pfr forms of phytochrome. Biochemistry, 1990, 29, 11141-11146.	2.5	101
177	Wave packet theory of dynamic absorption spectra in femtosecond pumpâ€probe experiments. Journal of Chemical Physics, 1990, 92, 4012-4029.	3.0	265
178	A 77â€K cold stage for Raman microprobes and optical microscopy. Review of Scientific Instruments, 1989, 60, 2628-2630.	1.3	11
179	Classical theory for realâ€time femtosecond probing of the NaI* photodissociation. Journal of Chemical Physics, 1989, 90, 6146-6150.	3.0	43
180	Excited state structure and femtosecond ringâ€opening dynamics of 1,3â€cyclohexadiene from absolute resonance Raman intensities. Journal of Chemical Physics, 1989, 90, 4274-4281.	3.0	92

#	ARTICLE	IF	CITATIONS
181	8,16-And 8,18-methanobacteriorhodopsin. Synthesis and spectroscopy of 8,16-and 8,18-methanoretinal and their interaction with bacterioopsin. Recueil Des Travaux Chimiques Des Pays-Bas, 1989, 108, 83-93.	0.0	19
182	Direct observation of the excited-state cis-trans photoisomerization of bacteriorhodopsin: Multilevel line shape theory for femtosecond dynamic hole burning and its application. Journal of Chemical Physics, 1989, 90, 199-208.	3.0	104
183	Single-molecule fluorescence detection: autocorrelation criterion and experimental realization with phycoerythrin.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 4087-4091.	7.1	166
184	RESONANCE RAMAN SPECTRA OF THE P_r-FORM OF PHYTOCHROME. Photochemistry and Photobiology, 1988, 48, 129-136.	2.5	52
185	Direct observation of the femtosecond excited-state cis-trans isomerization in bacteriorhodopsin. Science, 1988, 240, 777-779.	12.6	539
186	Absolute resonance Raman intensities demonstrate that the spectral broadening induced by the β -ionone ring in retinal is homogeneous. Journal of Chemical Physics, 1986, 84, 633-640.	3.0	44
187	Simple interpretation of dephasing in absorption and resonance Raman theory. Journal of Chemical Physics, 1986, 85, 3744-3748.	3.0	31
188	Raman cross section measurements in the visible and ultraviolet using an integrating cavity: Application to benzene, cyclohexane, and cacodylate. Journal of Chemical Physics, 1986, 84, 2068-2074.	3.0	118
189	Quantitation of homogeneous and inhomogeneous broadening mechanisms in trans-stilbene using absolute resonance Raman intensities. Journal of Chemical Physics, 1985, 83, 5000-5006.	3.0	76
190	Excited-state torsional dynamics of cis-stilbene from resonance Raman intensities. Journal of Chemical Physics, 1984, 81, 1552-1558.	3.0	137
191	PRIMARY PHOTOCHEMISTRY OF BACTERIORHODOPSIN: COMPARISON OF FOURIER TRANSFORM INFRARED DIFFERENCE SPECTRA WITH RESONANCE RAMAN SPECTRA. Photochemistry and Photobiology, 1984, 40, 675-679.	2.5	56
192	Resonance Raman excitation profiles of bacteriorhodopsin. Journal of Chemical Physics, 1983, 79, 603-613.	3.0	144
193	Excited state geometry changes from preresonance Raman intensities: Isoprene and hexatriene. Journal of Chemical Physics, 1982, 77, 3857-3866.	3.0	203
194	Assignment and interpretation of hydrogen out-of-plane vibrations in the resonance Raman spectra of rhodopsin and bathorhodopsin. Biochemistry, 1982, 21, 384-393.	2.5	214
195	Raman spectroscopy with intensified vidicon detectors: A study of intact bovine lens proteins. Journal of Raman Spectroscopy, 1978, 7, 349-352.	2.5	50