

# R J Dwayne Miller

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7604455/publications.pdf>

Version: 2024-02-01

223  
papers

12,781  
citations

23500

58  
h-index

26548

107  
g-index

394  
all docs

394  
docs citations

394  
times ranked

9553  
citing authors

#	ARTICLE	IF	CITATIONS
1	Disentangling surface atomic motions from surface field effects in ultrafast low-energy electron diffraction. <i>Communications Materials</i> , 2022, 3, .	2.9	1
2	Deamidation of the human eye lens protein $\hat{I}^3$ S-crystallin accelerates oxidative aging. <i>Structure</i> , 2022, 30, 763-776.e4.	1.6	7
3	Automatic quantification and classification of microplastics in scanning electron micrographs via deep learning. <i>Science of the Total Environment</i> , 2022, 825, 153903.	3.9	37
4	Serial femtosecond and serial synchrotron crystallography can yield data of equivalent quality: A systematic comparison. <i>Science Advances</i> , 2021, 7, .	4.7	25
5	Utilizing relativistic time dilation for time-resolved studies. <i>Journal of Chemical Physics</i> , 2021, 154, 111107.	1.2	1
6	Serial Electron Diffraction Data Processing With diffractem and CrystFEL. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 624264.	1.6	9
7	A simple vapor-diffusion method enables protein crystallization inside the HARE serial crystallography chip. <i>Acta Crystallographica Section D: Structural Biology</i> , 2021, 77, 820-834.	1.1	9
8	Ultrafast Charge Transfer and Relaxation at a Donor–Acceptor Interface. <i>Journal of Physical Chemistry B</i> , 2021, 125, 8869-8875.	1.2	5
9	Mapping Atomic Motions with Ultrabright Electrons: Fundamental Space-Time Limits to Imaging Chemistry and Biological Processes. <i>Microscopy and Microanalysis</i> , 2021, 27, 2114-2115.	0.2	0
10	Serial Electron Crystallography: New Developments for Data Collection and Analysis. <i>Microscopy and Microanalysis</i> , 2021, 27, 1286-1289.	0.2	0
11	Anisotropic, Nonthermal Lattice Disorder Observed in Photoexcited PbS Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22120-22132.	1.5	5
12	Quantum state tomography of molecules by ultrafast diffraction. <i>Nature Communications</i> , 2021, 12, 5441.	5.8	10
13	Mapping Atomic Motions with Electrons: Toward the Quantum Limit to Imaging Chemistry. <i>ACS Photonics</i> , 2020, 7, 296-320.	3.2	16
14	Intermolecular vibrations mediate ultrafast singlet fission. <i>Science Advances</i> , 2020, 6, .	4.7	42
15	Determining the radial distribution function of water using electron scattering: A key to solution phase chemistry. <i>Journal of Chemical Physics</i> , 2020, 153, 194504.	1.2	12
16	The crystal structures of a chloride-pumping microbial rhodopsin and its proton-pumping mutant illuminate proton transfer determinants. <i>Journal of Biological Chemistry</i> , 2020, 295, 14793-14804.	1.6	19
17	Ablation Precision and Thermal Effects of a Picosecond Infrared Laser (PIRL) on Roots of Human Teeth: A Pilot Study <i>Ex Vivo</i> . <i>In Vivo</i> , 2020, 34, 2325-2336.	0.6	6
18	Photoinduced Vibrations Drive Ultrafast Structural Distortion in Lead Halide Perovskite. <i>Journal of the American Chemical Society</i> , 2020, 142, 16569-16578.	6.6	30

#	ARTICLE	IF	CITATIONS
19	Human $\hat{3}\text{S}$ -Crystallinâ€“Copper Binding Helps Buffer against Aggregation Caused by Oxidative Damage. <i>Biochemistry</i> , 2020, 59, 2371-2385.	1.2	21
20	Three-dimensional view of ultrafast dynamics in photoexcited bacteriorhodopsin in the multiphoton regime and biological relevance. <i>Nature Communications</i> , 2020, 11, 1240.	5.8	38
21	Direct observation of nuclear reorganization driven by ultrafast spin transitions. <i>Nature Communications</i> , 2020, 11, 1530.	5.8	20
22	Quantum biology revisited. <i>Science Advances</i> , 2020, 6, eaaz4888.	4.7	266
23	Serial protein crystallography in an electron microscope. <i>Nature Communications</i> , 2020, 11, 996.	5.8	69
24	Excited-State Vibronic Dynamics of Bacteriorhodopsin from Two-Dimensional Electronic Photon Echo Spectroscopy and Multiconfigurational Quantum Chemistry. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3889-3896.	2.1	16
25	Intramolecular vibrations enhance the quantum efficiency of excitonic energy transfer. <i>Photosynthesis Research</i> , 2020, 144, 137-145.	1.6	9
26	The HARE chip for efficient time-resolved serial synchrotron crystallography. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 360-370.	1.0	39
27	Towards Ptychography with Structured Illumination, and a Derivative-Based Reconstruction Algorithm. <i>Microscopy and Microanalysis</i> , 2019, 25, 58-59.	0.2	4
28	Ultrafast ring-opening and solvent-dependent product relaxation of photochromic spironaphthopyran. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 18119-18127.	1.3	7
29	Rapid mixing of colliding picoliter liquid droplets delivered through-space from piezoelectric-actuated pipettes characterized by time-resolved fluorescence monitoring. <i>Review of Scientific Instruments</i> , 2019, 90, 055109.	0.6	5
30	Does electronic coherence enhance anticorrelated pigment vibrations under realistic conditions?. <i>Journal of Chemical Physics</i> , 2019, 151, 114115.	1.2	11
31	Electron Ptychography of Single Biological Macromolecules. <i>Microscopy and Microanalysis</i> , 2019, 25, 72-73.	0.2	2
32	Optical fiber-driven low-energy electron gun for time-resolved streak diffraction. <i>EPJ Web of Conferences</i> , 2019, 205, 08016.	0.1	0
33	Towards understanding triiodide photochemistry in the solid state by femtosecond electron diffraction. <i>EPJ Web of Conferences</i> , 2019, 205, 09007.	0.1	0
34	Time-resolved crystallography reveals allosteric communication aligned with molecular breathing. <i>Science</i> , 2019, 365, 1167-1170.	6.0	78
35	Liquid application method for time-resolved analyses by serial synchrotron crystallography. <i>Nature Methods</i> , 2019, 16, 979-982.	9.0	74
36	Sampling of Tissues with Laser Ablation for Proteomics: Comparison of Picosecond Infrared Laser and Microsecond Infrared Laser. <i>Journal of Proteome Research</i> , 2019, 18, 1451-1457.	1.8	8

#	ARTICLE	IF	CITATIONS
37	Relativistic Modeling of Ultra-Short Electron Pulse Propagation. Journal of Experimental and Theoretical Physics, 2019, 128, 333-340.	0.2	5
38	Pyrene, a Test Case for Deep-Ultraviolet Molecular Photophysics. Journal of Physical Chemistry Letters, 2019, 10, 3481-3487.	2.1	35
39	Evidence and implications for exciton dissociation in lead halide perovskites. EPJ Web of Conferences, 2019, 205, 06018.	0.1	0
40	Direct observation of structural dynamics upon photo-excitation in a spin crossover crystal with femtosecond electron diffraction. EPJ Web of Conferences, 2019, 205, 07005.	0.1	0
41	Ultrafast spin crossover in a single crystal. EPJ Web of Conferences, 2019, 205, 07009.	0.1	0
42	Mapping Atomic Motions with Ultrabright Electrons: Fundamental Space-Time Limits to Imaging Chemistry and Biological Processes. Microscopy and Microanalysis, 2019, 25, 27-28.	0.2	0
43	Ultrafast Energy Transfer in Excitonically Coupled Molecules Induced by a Nonlocal Peierls Phonon. Journal of Physical Chemistry Letters, 2019, 10, 1206-1211.	2.1	15
44	The effect of Coulomb repulsion on the space-time resolution limits for ultrafast electron diffraction. Journal of Chemical Physics, 2019, 150, 054201.	1.2	10
45	Overcoming Avalanche Ionization to Generate Multi-Octave Supercontinuum Pumped by a Ho:YLF Regenerative Amplifier. , 2019, , .		0
46	Rapid deconvolution of low-resolution time-of-flight data using Bayesian inference. Journal of Chemical Physics, 2019, 151, 244307.	1.2	0
47	Highly stable, 100 W average power from fiber-based ultrafast laser system at 1030 nm based on single-pass photonic-crystal rod amplifier. Optics Communications, 2019, 437, 6-10.	1.0	18
48	Fixed-target serial oscillation crystallography at room temperature. IUCr, 2019, 6, 305-316.	1.0	26
49	Soft Picosecond Infrared Laser Extraction of Highly Charged Proteins and Peptides from Bulk Liquid Water for Mass Spectrometry. Analytical Chemistry, 2018, 90, 4422-4428.	3.2	13
50	Origin of poor doping efficiency in solution processed organic semiconductors. Chemical Science, 2018, 9, 4468-4476.	3.7	18
51	Direct Observation of Ultrafast Exciton Dissociation in Lead Iodide Perovskite by 2D Electronic Spectroscopy. ACS Photonics, 2018, 5, 852-860.	3.2	57
52	Atomically thin monolayers of metal organic frameworks (MOFs) through implementing a Langmuir-Schaefer method. AIP Conference Proceedings, 2018, , .	0.3	1
53	Optical fiber-driven low energy electron gun for ultrafast streak diffraction. Applied Physics Letters, 2018, 113, 133502.	1.5	6
54	The hit-and-return system enables efficient time-resolved serial synchrotron crystallography. Nature Methods, 2018, 15, 901-904.	9.0	67

#	ARTICLE	IF	CITATIONS
55	Digital interference microscopy and density reconstruction of picosecond infrared laser desorption at the water-air interface. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	2
56	Photochromism of Amphiphilic Dithienylethenes as Langmuir-Schaefer Films. <i>Langmuir</i> , 2018, 34, 10905-10912.	1.6	7
57	Ultrafast dissolution and creation of bonds in IrTe <sub>2</sub> induced by photodoping. <i>Science Advances</i> , 2018, 4, eaar3867.	4.7	19
58	Transmission low-energy electron diffraction using double-gated single nanotip field emitter. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	11
59	Fabrication and characterization of a focused ion beam milled lanthanum hexaboride based cold field electron emitter source. <i>Applied Physics Letters</i> , 2018, 113, 093101.	1.5	17
60	Visualization of Cellular Components in a Mammalian Cell with Liquid-Cell Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2017, 23, 46-55.	0.2	10
61	Structural Dynamics upon Photoexcitation in a Spin Crossover Crystal Probed with Femtosecond Electron Diffraction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7130-7134.	7.2	43
62	The photoinduced dynamics of X[M(dmit) <sub>2</sub> ] <sub>2</sub> salts. <i>Physica Scripta</i> , 2017, 92, 034005.	1.2	0
63	Capturing Chemistry in Action with Electrons: Realization of Atomically Resolved Reaction Dynamics. <i>Chemical Reviews</i> , 2017, 117, 11066-11124.	23.0	108
64	Compression of high-density 0.16 pC electron bunches through high field gradients for ultrafast single shot electron diffraction: The Compact RF Gun. <i>Structural Dynamics</i> , 2017, 4, 044016.	0.9	14
65	Structural Dynamics upon Photoexcitation in a Spin Crossover Crystal Probed with Femtosecond Electron Diffraction. <i>Angewandte Chemie</i> , 2017, 129, 7236-7240.	1.6	7
66	The Primary Photochemistry of Vision Occurs at the Molecular Speed Limit. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4040-4047.	1.2	42
67	Coherent ultrafast lattice-directed reaction dynamics of triiodide anion photodissociation. <i>Nature Chemistry</i> , 2017, 9, 516-522.	6.6	16
68	Primary Charge Separation in the Photosystem II Reaction Center Revealed by a Global Analysis of the Two-dimensional Electronic Spectra. <i>Scientific Reports</i> , 2017, 7, 12347.	1.6	34
69	Structural Monitoring of the Onset of Excited-State Aromaticity in a Liquid Crystal Phase. <i>Journal of the American Chemical Society</i> , 2017, 139, 15792-15800.	6.6	59
70	Robust reconstruction of time-resolved diffraction from ultrafast streak cameras. <i>Structural Dynamics</i> , 2017, 4, 054302.	0.9	8
71	Low-dose cryo electron ptychography via non-convex Bayesian optimization. <i>Scientific Reports</i> , 2017, 7, 9883.	1.6	59
72	Tracking an electronic wave packet in the vicinity of a conical intersection. <i>Journal of Chemical Physics</i> , 2017, 147, 074101.	1.2	15

#	ARTICLE	IF	CITATIONS
73	Nature does not rely on long-lived electronic quantum coherence for photosynthetic energy transfer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8493-8498.	3.3	235
74	Transient structures and chemical reaction dynamics. <i>Russian Chemical Reviews</i> , 2017, 86, 1173-1253.	2.5	13
75	Time zero determination for FEL pump-probe studies based on ultrafast melting of bismuth. <i>Structural Dynamics</i> , 2017, 4, 054308.	0.9	13
76	Protein crystals IR laser ablated from aqueous solution at high speed retain their diffractive properties: applications in high-speed serial crystallography. <i>Journal of Applied Crystallography</i> , 2017, 50, 1773-1781.	1.9	10
77	Low-dose fixed-target serial synchrotron crystallography. <i>Acta Crystallographica Section D: Structural Biology</i> , 2017, 73, 373-378.	1.1	91
78	Special issue on imaging the dynamic structure of matter. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 150201.	0.6	3
79	<i>&lt;i&gt;TakeTwo&lt;/i&gt;</i> : an indexing algorithm suited to still images with known crystal parameters. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 956-965.	1.1	35
80	Spectral Signatures of Ultrafast Spin Crossover in Single Crystal [Fe <sup>II</sup> (bpy) <sub>3</sub> ](PF <sub>6</sub> ) <sub>2</sub> . <i>Chemistry - A European Journal</i> , 2016, 22, 5118-5122.	1.7	24
81	Measurement of transverse emittance and coherence of double-gate field emitter array cathodes. <i>Nature Communications</i> , 2016, 7, 13976.	5.8	20
82	Ultrafast imaging of photochemical dynamics: roadmap to a new conceptual basis for chemistry. <i>Faraday Discussions</i> , 2016, 194, 777-828.	1.6	17
83	Molecular dynamics investigation of desorption and ion separation following picosecond infrared laser (PRL) ablation of an ionic aqueous protein solution. <i>Journal of Chemical Physics</i> , 2016, 145, 204202.	1.2	19
84	Bandgap modulation in photoexcited topological insulator Bi <sub>2</sub> Te <sub>3</sub> via atomic displacements. <i>Journal of Chemical Physics</i> , 2016, 145, 024504.	1.2	20
85	Ultrafast electron diffraction optimized for studying structural dynamics in thin films and monolayers. <i>Structural Dynamics</i> , 2016, 3, 034302.	0.9	29
86	Synthesis of Bidimensional Prussian Blue Analogue Using an Inverted Langmuir-Schaefer Method. <i>Langmuir</i> , 2016, 32, 9706-9713.	1.6	6
87	Comparative study of wound healing in rat skin following incision with a novel picosecond infrared laser (PRL) and different surgical modalities. <i>Lasers in Surgery and Medicine</i> , 2016, 48, 385-391.	1.1	33
88	Impact of Vibrational Coherence on the Quantum Yield at a Conical Intersection. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3491-3496.	2.1	25
89	New Insights into the Photophysics of DNA Nucleobases. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4445-4450.	2.1	62
90	Fixed target combined with spectral mapping: approaching 100% hit rates for serial crystallography. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 944-955.	1.1	71

#	ARTICLE	IF	CITATIONS
91	Optical fiber-based photocathode. Applied Physics Letters, 2016, 109, 091105.	1.5	6
92	Synchronised photoreversion of spirooxazine ring opening in thin crystals to uncover ultrafast dynamics. CrystEngComm, 2016, 18, 7212-7216.	1.3	6
93	Homogenization of tissues via picosecond-infrared laser (PIRL) ablation: Giving a closer view on the in-vivo composition of protein species as compared to mechanical homogenization. Journal of Proteomics, 2016, 134, 193-202.	1.2	33
94	Laser-Limited Signatures of Quantum Coherence. Journal of Physical Chemistry A, 2016, 120, 3042-3048.	1.1	19
95	Towards Atomically-Resolved Structural Changes during a Solid State Geminate Recombination Reaction. , 2016, , .		0
96	Ultrafast Snapshots of the Molecules Twisting in Liquid Crystal State. , 2016, , .		0
97	Fixed target matrix for femtosecond time-resolved and in situ serial micro-crystallography. Structural Dynamics, 2015, 2, 054302.	0.9	102
98	Field emission beam characteristics of single metal nanotip cathodes with on-chip collimation gate electrode. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 03C111.	0.6	6
99	Ultrafast Extraction of Proteins from Tissues Using Desorption by Impulsive Vibrational Excitation. Angewandte Chemie - International Edition, 2015, 54, 285-288.	7.2	44
100	Ambient Mass Spectrometry Imaging with Picosecond Infrared Laser Ablation Electrospray Ionization (PIR-LAESI). Analytical Chemistry, 2015, 87, 12071-12079.	3.2	49
101	Direct observation of collective modes coupled to molecular orbitalâ€“driven charge transfer. Science, 2015, 350, 1501-1505.	6.0	114
102	Reduction of thermocoagulative injury via use of a picosecond infrared laser (PIRL) in laryngeal tissues. European Archives of Oto-Rhino-Laryngology, 2015, 272, 941-948.	0.8	23
103	Early Events in the Nonadiabatic Relaxation Dynamics of 4-( <i>N,N</i> -Dimethylamino)benzonitrile. Journal of Chemical Theory and Computation, 2015, 11, 1118-1128.	2.3	29
104	Fiber tip-based electron source. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 03C101.	0.6	5
105	Mapping atomic motions with ultrabright electrons: towards fundamental limits in space-time resolution. Faraday Discussions, 2015, 177, 467-491.	1.6	81
106	Towards instantaneous cellular level bio diagnosis: laser extraction and imaging of biological entities with conserved integrity and activity. Nanotechnology, 2015, 26, 284001.	1.3	26
107	Two-Dimensional Electronic Spectroscopy of Light-Harvesting Complex II at Ambient Temperature: A Joint Experimental and Theoretical Study. Journal of Physical Chemistry B, 2015, 119, 12017-12027.	1.2	54
108	Visualization of Multimerization and Self-Assembly of DNA-Functionalized Gold Nanoparticles Using In-Liquid Transmission Electron Microscopy. Journal of Physical Chemistry Letters, 2015, 6, 4487-4492.	2.1	31

#	ARTICLE	IF	CITATIONS
109	Local vibrational coherences drive the primary photochemistry of vision. <i>Nature Chemistry</i> , 2015, 7, 980-986.	6.6	162
110	Broadband Electronic Two-Dimensional Spectroscopy in the Deep UV. <i>Springer Proceedings in Physics</i> , 2015, , 432-435.	0.1	12
111	A modular and compact portable mini-endstation for high-precision, high-speed fixed target serial crystallography at FEL and synchrotron sources. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 1372-1378.	1.0	55
112	Comment on "Engineering coherence among excited states in synthetic heterodimer systems" <i>Science</i> , 2014, 344, 1099-1099.	6.0	10
113	Femtosecond Crystallography with Ultrabright Electrons and X-rays: Capturing Chemistry in Action. <i>Science</i> , 2014, 343, 1108-1116.	6.0	260
114	Mapping Atomic Motions with Ultrabright Electrons: The Chemists' Gedanken Experiment Enters the Lab Frame. <i>Annual Review of Physical Chemistry</i> , 2014, 65, 583-604.	4.8	111
115	Two-dimensional spectroscopy of a molecular dimer unveils the effects of vibronic coupling on exciton coherences. <i>Nature Chemistry</i> , 2014, 6, 196-201.	6.6	219
116	Bone Ablation without Thermal or Acoustic Mechanical Injury via a Novel Picosecond Infrared Laser (PIRL). <i>Otolaryngology - Head and Neck Surgery</i> , 2014, 150, 385-393.	1.1	40
117	The photocycle and ultrafast vibrational dynamics of bacteriorhodopsin in lipid nanodiscs. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 21310-21320.	1.3	37
118	Cold ablation driven by localized forces in alkali halides. <i>Nature Communications</i> , 2014, 5, 3863.	5.8	41
119	Impact of laser on bismuth thin-films. <i>European Physical Journal: Special Topics</i> , 2013, 222, 1277-1285.	1.2	12
120	A novel tool in laryngeal surgery: Preliminary results of the picosecond infrared laser. <i>Laryngoscope</i> , 2013, 123, 2770-2775.	1.1	19
121	Mapping molecular motions leading to charge delocalization with ultrabright electrons. <i>Nature</i> , 2013, 496, 343-346.	13.7	240
122	Nanofluidic Cells with Controlled Pathlength and Liquid Flow for Rapid, High-Resolution In Situ Imaging with Electrons. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2339-2347.	2.1	60
123	Ring-Closing Reaction in Diarylethene Captured by Femtosecond Electron Crystallography. <i>Journal of Physical Chemistry B</i> , 2013, 117, 15894-15902.	1.2	79
124	Heat Generation During Ablation of Porcine Skin With Erbium:YAG Laser vs a Novel Picosecond Infrared Laser. <i>JAMA Otolaryngology - Head and Neck Surgery</i> , 2013, 139, 828.	1.2	28
125	Single shot time stamping of ultrabright radio frequency compressed electron pulses. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	56
126	Two-Dimensional Electronic Spectroscopy of a Model Dimer System. <i>EPJ Web of Conferences</i> , 2013, 41, 05032.	0.1	4



#	ARTICLE	IF	CITATIONS
127	Full characterization of RF compressed femtosecond electron pulses using ponderomotive scattering. <i>Optics Express</i> , 2012, 20, 12048.	1.7	106
128	Hot electron injection driven phase transitions. <i>Physical Review B</i> , 2012, 86, .	1.1	29
129	Femtosecond electron diffraction: Preparation and characterization of (110)-oriented bismuth films. <i>Journal of Applied Physics</i> , 2012, 111, 043504.	1.1	20
130	Crystallography on a chip. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2012, 68, 321-323.	2.5	70
131	“Making the molecular movie”: First frames&#x2026;&#x2026;coming features. , 2011, , .		0
132	Self-Localizing Stabilized Mega-Pixel Picoliter Arrays with Size-Exclusion Sorting Capabilities. <i>Analytical Chemistry</i> , 2011, 83, 767-773.	3.2	12
133	Femtosecond electron diffraction: heralding the era of atomically resolved dynamics. <i>Reports on Progress in Physics</i> , 2011, 74, 096101.	8.1	402
134	Femtosecond Dynamics of the Ring Closing Process of Diarylethene: A Case Study of Electrocyclic Reactions in Photochromic Single Crystals. <i>Journal of Physical Chemistry A</i> , 2011, 115, 13158-13168.	1.1	96
135	Enhanced bandwidth noncollinear optical parametric amplification with a narrowband anamorphic pump. <i>Optics Letters</i> , 2011, 36, 2170.	1.7	16
136	Coherent control of the isomerization of retinal in bacteriorhodopsin in the high intensity regime. <i>Journal of Chemical Physics</i> , 2011, 134, 085105.	1.2	46
137	“Making the molecular movie”: first frames. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, 137-156.	0.3	84
138	Snapshots of cooperative atomic motions in the optical suppression of charge density waves. <i>Nature</i> , 2010, 468, 799-802.	13.7	373
139	Ultrafast Mid-IR Laser Scalpel: Protein Signals of the Fundamental Limits to Minimally Invasive Surgery. <i>PLoS ONE</i> , 2010, 5, e13053.	1.1	165
140	Vibrationally excited ultrafast thermodynamic phase transitions at the water/air interface. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5225.	1.3	51
141	Ultrafast order parameter melting in a 2D Charge Density Wave 1T-TaS <sub>2</sub> probed by femtosecond electron diffraction. , 2010, , .		0
142	Coherent Acoustic Phonons in Highly Oriented Bismuth Films Monitored by Femtosecond Electron Diffraction. , 2010, , .		0
143	Excitation of longitudinal and transverse coherent acoustic phonons in nanometer free-standing films of (001) Si. <i>Physical Review B</i> , 2009, 79, .	1.1	81
144	Electronic acceleration of atomic motions and disordering in bismuth. <i>Nature</i> , 2009, 458, 56-59.	13.7	253

#	ARTICLE	IF	CITATIONS
145	Diffractive Optics Based Four-Wave, Six-Wave, $\hat{1}/2$ -Wave Nonlinear Spectroscopy. Accounts of Chemical Research, 2009, 42, 1442-1451.	7.6	19
146	Coherently-controlled two-dimensional photon echo electronic spectroscopy. Optics Express, 2009, 17, 9764.	1.7	75
147	Stable UV to IR supercontinuum generation in calcium fluoride with conserved circular polarization states. Optics Express, 2009, 17, 21488.	1.7	36
148	Laser selective cutting of biological tissues by impulsive heat deposition through ultrafast vibrational excitations. Optics Express, 2009, 17, 22937.	1.7	73
149	The Formation of Warm Dense Matter: Experimental Evidence for Electronic Bond Hardening in Gold. Science, 2009, 323, 1033-1037.	6.0	294
150	Atomic View of the Photoinduced Collapse of Gold and Bismuth. Springer Series in Chemical Physics, 2009, , 113-115.	0.2	0
151	Electronically Driven Structural Dynamics of Si Resolved by Femtosecond Electron Diffraction. Springer Series in Chemical Physics, 2009, , 158-160.	0.2	0
152	Two Dimensional Fifth-Order Raman Spectroscopy. , 2008, , 1-72.		3
153	Temperature dependence of the two-dimensional infrared spectrum of liquid $H_2O$ . Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 437-442.	3.3	242
154	Grating enhanced ponderomotive scattering for visualization and full characterization of femtosecond electron pulses. Optics Express, 2008, 16, 3334.	1.7	93
155	Electronically Driven Structure Changes of Si Captured by Femtosecond Electron Diffraction. Physical Review Letters, 2008, 100, 155504.	2.9	150
156	Two-dimensional fifth-order Raman spectroscopy of liquid formamide: Experiment and Theory. Journal of Chemical Physics, 2008, 128, 234507.	1.2	48
157	Raman gain from waveguides inscribed in $KGd(WO_4)_2$ by high repetition rate femtosecond laser. Applied Physics Letters, 2008, 92, 081105.	1.5	35
158	Direct visualization of charge distributions during femtosecond laser ablation of a Si (100) surface. Physical Review B, 2008, 78, .	1.1	42
159	Experimental basics for femtosecond electron diffraction studies. Journal of Modern Optics, 2007, 54, 923-942.	0.6	14
160	Femtosecond electron diffraction: an atomic perspective of condensed phase dynamics. Journal of Modern Optics, 2007, 54, 905-922.	0.6	26
161	Effects of femtosecond laser irradiation on osseous tissues. Lasers in Surgery and Medicine, 2007, 39, 273-285.	1.1	65
162	Microtomographic analysis of healing of femtosecond laser bone calvarial wounds compared to mechanical instruments in mice with and without application of BMP-7. Lasers in Surgery and Medicine, 2007, 39, 458-467.	1.1	18

#	ARTICLE	IF	CITATIONS
163	Fifth-Order Raman Spectroscopy of Liquid Benzene: Experiment and Theory. Journal of Physical Chemistry B, 2006, 110, 19867-19876.	1.2	24
164	Carrier Relaxation and Lattice Heating Dynamics in Silicon Revealed by Femtosecond Electron Diffraction. Journal of Physical Chemistry B, 2006, 110, 25308-25313.	1.2	81
165	Femtosecond electron pulse characterization using laser ponderomotive scattering. Optics Letters, 2006, 31, 3517.	1.7	73
166	Do we live in a quantum world? Advances in multidimensional coherent spectroscopies refine our understanding of quantum coherences and structural dynamics of biological systems. Current Opinion in Structural Biology, 2006, 16, 654-663.	2.6	39
167	Coherent Control of Retinal Isomerization in Bacteriorhodopsin. Science, 2006, 313, 1257-1261.	6.0	343
168	Femtosecond electron diffraction: making the molecular movie. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 741-778.	1.6	176
169	Fifth-order Raman spectroscopy: Liquid benzene. , 2006, , .		0
170	2D-IR Photon Echo Spectroscopy of Pure Liquid Water - Combination of Novel Nanofluidics and Diffractive Optics Deciphers Ultrafast Structural Dynamics. , 2006, , .		0
171	Nonlinear optical studies of heme protein dynamics: Implications for proteins as hybrid states of matter. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2005, 1749, 148-172.	1.1	33
172	Ultrafast memory loss and energy redistribution in the hydrogen bond network of liquid H2O. Nature, 2005, 434, 199-202.	13.7	691
173	Anharmonic Couplings Underlying the Ultrafast Vibrational Dynamics of Hydrogen Bonds in Liquids. Physical Review Letters, 2005, 95, 147402.	2.9	75
174	Femtosecond electron diffraction: an atomic level view of condensed phase dynamics. , 2005, , .		0
175	Femtosecond electron diffraction: atomic level "movies" of condensed phase dynamics. , 2005, , .		0
176	Determination of the Fe~CO Bond Energy in Myoglobin Using Heterodyne-Detected Transient Thermal Phase Grating Spectroscopy. Journal of Physical Chemistry B, 2005, 109, 20605-20611.	1.2	20
177	Characterization of ultrashort electron pulses by electron-laser pulse cross correlation. Optics Letters, 2005, 30, 1057.	1.7	54
178	Two-dimensional spectroscopy using diffractive optics based phased-locked photon echoes. Chemical Physics Letters, 2004, 386, 184-189.	1.2	290
179	Heterodyne detected fifth-order Raman response of liquid CS2: Dutch Cross polarization. Chemical Physics Letters, 2003, 369, 635-642.	1.2	36
180	An Atomic-Level View of Melting Using Femtosecond Electron Diffraction. Science, 2003, 302, 1382-1385.	6.0	802

#	ARTICLE	IF	CITATIONS
181	Fifth-order two-dimensional Raman spectroscopy: A new direct probe of the liquid state. <i>International Reviews in Physical Chemistry</i> , 2003, 22, 497-532.	0.9	63
182	Observation of the cascaded atomic-to-global length scales driving protein motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 4990-4994.	3.3	56
183	Response to "Comment on 'Ultrafast electron optics: Propagation dynamics of femtosecond electron packets'" [J. Appl. Phys. 94, 803 (2003)]. <i>Journal of Applied Physics</i> , 2003, 94, 807-808.	1.1	12
184	Diffraction optics-based six-wave mixing: Heterodyne detection of the full $\chi^{(5)}$ tensor of liquid CS <sub>2</sub> . <i>Journal of Chemical Physics</i> , 2002, 116, 2016-2042.	1.2	96
185	Dynamics of Ligand Escape in Myoglobin: Q-Band Transient Absorption and Four-Wave Mixing Studies. <i>Journal of Physical Chemistry B</i> , 2002, 106, 10460-10467.	1.2	28
186	Versatile seven-femtosecond pulse compressor of parametrically amplified pulses using adaptive optics: studies of the primary events in protein dynamics. <i>Applied Physics B: Lasers and Optics</i> , 2002, 74, s127-s132.	1.1	3
187	Diffraction optics implementation of time- and frequency-domain heterodyne-detected six-wave mixing. <i>Applied Physics B: Lasers and Optics</i> , 2002, 74, s107-s112.	1.1	9
188	Ultrafast electron optics: Propagation dynamics of femtosecond electron packets. <i>Journal of Applied Physics</i> , 2002, 92, 1643-1648.	1.1	285
189	Versatile 7-fs optical parametric pulse generation and compression by use of adaptive optics. <i>Optics Letters</i> , 2001, 26, 1152.	1.7	53
190	Myoglobin dynamics: evidence for a hybrid solid/fluid state of matter. <i>Journal of Luminescence</i> , 2001, 94-95, 489-492.	1.5	3
191	Diffraction optics-based heterodyne detected four-wave mixing studies of protein dynamics: insights into ligand escape and cooperativity in heme proteins. , 2001, , .		0
192	Diffraction optics-based heterodyne-detected four-wave mixing signals of protein motion: From "protein quakes" to ligand escape for myoglobin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 6110-6115.	3.3	57
193	Diffraction optics implementation of six-wave mixing. <i>Optics Letters</i> , 2000, 25, 853.	1.7	59
194	Diffraction Optics-Based Heterodyne-Detected Grating Spectroscopy: Application to Ultrafast Protein Dynamics. <i>Journal of Physical Chemistry B</i> , 1999, 103, 603-607.	1.2	48
195	Femtosecond Heterodyne-Detected Four-Wave-Mixing Studies of Deterministic Protein Motions. 2. Protein Response. <i>Journal of Physical Chemistry A</i> , 1999, 103, 10630-10643.	1.1	50
196	Femtosecond Heterodyne-Detected Four-Wave-Mixing Studies of Deterministic Protein Motions. 1. Theory and Experimental Technique of Diffraction Optics-Based Spectroscopy. <i>Journal of Physical Chemistry A</i> , 1999, 103, 10619-10629.	1.1	39
197	Ultrafast Phase Grating Studies of Heme Proteins: Observation of the Low-Frequency Modes Directing Functionally Important Protein Motions. <i>Journal of Physical Chemistry B</i> , 1998, 102, 6621-6634.	1.2	53
198	Ultrafast heterodyne-detected transient-grating spectroscopy using diffraction optics. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1998, 15, 1791.	0.9	245

#	ARTICLE	IF	CITATIONS
199	Energy Dependence of Electron Lifetime in Graphite Observed with Femtosecond Photoemission Spectroscopy. <i>Physical Review Letters</i> , 1996, 76, 483-486.	2.9	120
200	Interrogation of Vibrational Structure and Line Broadening of Liquid Water by Raman-Induced Kerr Effect Measurements within the Multimode Brownian Oscillator Model. <i>The Journal of Physical Chemistry</i> , 1996, 100, 10380-10388.	2.9	95
201	Transient grating excitation of interfacial acoustics: Treatment of multilayer structures. <i>Journal of Chemical Physics</i> , 1995, 103, 1191-1199.	1.2	13
202	Optical generation of high-frequency acoustic waves in GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As periodic multilayer structures. <i>Journal of Applied Physics</i> , 1994, 75, 2761-2768.	1.1	36
203	Energetics and Dynamics of Deterministic Protein Motion. <i>Accounts of Chemical Research</i> , 1994, 27, 145-150.	7.6	65
204	Picosecond surface restricted transient grating studies of carrier reaction dynamics at GaAs(100) interfaces. <i>Journal of Chemical Physics</i> , 1992, 96, 3981-3994.	1.2	19
205	Ultrafast charge-transfer dynamics at tin disulfide surfaces. <i>The Journal of Physical Chemistry</i> , 1992, 96, 2820-2826.	2.9	61
206	Nonlinear digital filtering of scanning probe microscopy images by morphological pseudoconvolutions. <i>Journal of Applied Physics</i> , 1992, 71, 1565-1578.	1.1	15
207	Scanning Tunneling Microscopy and Atomic Force Microscopy of Thin Polymer Films. <i>Molecular Crystals and Liquid Crystals</i> , 1991, 194, 305-310.	0.7	2
208	Vibrational Energy Relaxation and Structural Dynamics of Heme Proteins. <i>Annual Review of Physical Chemistry</i> , 1991, 42, 581-614.	4.8	127
209	Subpicosecond reflective electrooptic sampling of electron-hole vertical transport in surface charge fields. <i>Applied Physics Letters</i> , 1990, 56, 524-526.	1.5	57
210	Analysis of Surface Wave Generation by Laser Interference. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1990, 57, 415-418.	1.1	10
211	Picosecond dynamics of surface electron transfer processes: Surface restricted transient grating studies of the TiO <sub>2</sub> /H <sub>2</sub> O interface. <i>Journal of Chemical Physics</i> , 1989, 90, 1253-1269.	1.2	125
212	Monte Carlo study of photogenerated carrier transport in GaAs surface space charge fields. <i>Journal of Applied Physics</i> , 1989, 66, 3066-3073.	1.1	32
213	Picosecond transient thermal phase grating spectroscopy: A new approach to the study of vibrational energy relaxation processes in proteins. <i>Chemical Physics</i> , 1989, 131, 81-97.	0.9	102
214	Optical generation of coherent surface acoustic waves: A new probe of surface dynamics and structure. <i>AIP Conference Proceedings</i> , 1988, , .	0.3	0
215	Vibrational energy relaxation processes in heme proteins. <i>AIP Conference Proceedings</i> , 1988, , .	0.3	0
216	Picosecond dynamics of electron transfer at semiconductor liquid junctions. <i>AIP Conference Proceedings</i> , 1988, , .	0.3	1

#	ARTICLE	IF	CITATIONS
217	A coherent photoacoustic approach to excited-state-excited-state absorption spectroscopy: application to the investigation of a near-resonant contribution to ultrasonic diffraction. The Journal of Physical Chemistry, 1984, 88, 3021-3025.	2.9	21
218	Electronic excited state transport and trapping in disordered systems: Picosecond fluorescence mixing, transient grating, and probe pulse experiments. Journal of Chemical Physics, 1983, 78, 5138-5146.	1.2	74
219	Optical generation of tunable ultrasonic waves. Journal of Applied Physics, 1982, 53, 1144-1149.	1.1	221
220	Laser-induced excited state and ultrasonic wave gratings: Amplitude and phase grating contributions to diffraction. Journal of Chemical Physics, 1982, 77, 1144-1152.	1.2	191
221	Diffraction-based fifth-order Raman spectroscopy of ultrafast liquid dynamics. , 0, , .		0
222	Making movies of molecules with femtosecond electron wavepackets. , 0, , .		0
223	Femtosecond electron diffraction: atomic level "movies" of condensed phase dynamics. , 0, , .		0