We Moerner Or William E Moerner

List of Publications by Year
in descending order

418 papers	34,877 citations	3334 91 h-index	4228 174 g-index
451 all docs	451 docs citations	451 times ranked	20778 citing authors

#	Article	IF	Citations
1	Large single-molecule fluorescence enhancements produced by a bowtie nanoantenna. Nature Photonics, 2009, 3, 654-657.	31.4	1,788
2	On/off blinking and switching behaviour of single molecules of green fluorescent protein. Nature, 1997, 388, 355-358.	27.8	1,281
3	Illuminating Single Molecules in Condensed Matter. Science, 1999, 283, 1670-1676.	12.6	1,071
4	Optical detection and spectroscopy of single molecules in a solid. Physical Review Letters, 1989, 62, 2535-2538.	7.8	1,036
5	Three-dimensional, single-molecule fluorescence imaging beyond the diffraction limit by using a double-helix point spread function. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2995-2999.	7.1	924
6	Improving the Mismatch between Light and Nanoscale Objects with Gold Bowtie Nanoantennas. Physical Review Letters, 2005, 94, 017402.	7.8	913
7	Methods of single-molecule fluorescence spectroscopy and microscopy. Review of Scientific Instruments, 2003, 74, 3597-3619.	1.3	783
8	Polymeric photorefractive materials. Chemical Reviews, 1994, 94, 127-155.	47.7	768
9	Single photons on demand from a single molecule at room temperature. Nature, 2000, 407, 491-493.	27.8	700
10	Observation of the photorefractive effect in a polymer. Physical Review Letters, 1991, 66, 1846-1849.	7.8	585
11	Gap-Dependent Optical Coupling of Single â€œBowtieâ€•Nanoantennas Resonant in the Visible. Nano Letters, 2004, 4, 957-961.	9.1	577
12	Photon antibunching in the fluorescence of a single dye molecule trapped in a solid. Physical Review Letters, 1992, 69, 1516-1519.	7.8	503
13	Organic Photorefractives:â€‰ Mechanisms, Materials, and Applications. Chemical Reviews, 2004, 104, 3267-3314.	47.7	464
14	New directions in single-molecule imaging and analysis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12596-12602.	7.1	418
15	Toward Nanometer-Scale Optical Photolithography:Â Utilizing the Near-Field of Bowtie Optical Nanoantennas. Nano Letters, 2006, 6, 355-360.	9.1	394
16	A Dozen Years of Single-Molecule Spectroscopy in Physics, Chemistry, and Biophysics. Journal of Physical Chemistry B, 2002, 106, 910-927.	2.6	393
17	Orientationally enhanced photorefractive effect in polymers. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 320.	2.1	389
18	Three-Dimensional Localization of Single Molecules for Super-Resolution Imaging and Single-Particle Tracking. Chemical Reviews, 2017, 117, 7244-7275.	47.7	381

#	Article	IF	Citations
19	Three-Dimensional Imaging of Single Molecules Solvated in Pores of Poly(acrylamide) Gels. Science, 1996, 274, 966-968.	12.6	364
20	Detection and spectroscopy of single pentacene molecules in apâ€terphenyl crystal by means of fluorescence excitation. Journal of Chemical Physics, 1991, 95, 7150-7163.	3.0	339
21	Super-resolution imaging in live Caulobacter crescentus cells using photoswitchable EYFP. Nature Methods, 2008, 5, 947-949.	19.0	339
22	Fluorescence spectroscopy and spectral diffusion of single impurity molecules in a crystal. Nature, 1991, 349, 225-227.	27.8	335
23	A spindle-like apparatus guides bacterial chromosome segregation. Nature Cell Biology, 2010, 12, 791-798.	10.3	308
24	Photon antibunching in single CdSe/ZnS quantum dot fluorescence. Chemical Physics Letters, 2000, 329, 399-404.	2.6	301
25	Fluorescence correlation spectroscopy reveals fast optical excitation-driven intramolecular dynamics of yellow fluorescent proteins. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 151-156.	7.1	297
26	A Polymeric Protein Anchors the Chromosomal Origin/ParB Complex at a Bacterial Cell Pole. Cell, 2008, 134, 945-955.	28.9	295
27	PHOTOREFRACTIVE POLYMERS. Annual Review of Materials Research, 1997, 27, 585-623.	5.5	279
28	Optimal Point Spread Function Design for 3D Imaging. Physical Review Letters, 2014, 113, 133902.	7.8	277
29	Exploring the chemical enhancement for surface-enhanced Raman scattering with Au bowtie nanoantennas. Journal of Chemical Physics, 2006, 124, 061101.	3.0	276
30	Magnetic resonance of a single molecular spin. Nature, 1993, 363, 242-244.	27.8	260
31	Translational Diffusion of Individual Class II MHC Membrane Proteinsin Cells. Biophysical Journal, 2002, 83, 2681-2692.	0.5	255
32	Field enhancement and gap-dependent resonance in a system of two opposing tip-to-tip Au nanotriangles. Physical Review B, 2005, 72, .	3.2	242
33	Suppressing Brownian motion of individual biomolecules in solution. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4362-4365.	7.1	237
34	Exploring bacterial cell biology with single-molecule tracking and super-resolution imaging. Nature Reviews Microbiology, 2014, 12, 9-22.	28.6	232
35	Method for trapping and manipulating nanoscale objects in solution. Applied Physics Letters, 2005, 86, 093109.	3.3	218
36	Examining Nanoenvironments in Solids on the Scale of a Single, Isolated Impurity Molecule. Science, 1994, 265, 46-53.	12.6	214

#	Article	IF	Citations
37	Precise Three-Dimensional Scan-Free Multiple-Particle Tracking over Large Axial Ranges with Tetrapod Point Spread Functions. Nano Letters, 2015, 15, 4194-4199.	9.1	210
38	A Photoactivatable Pushâ^'Pull Fluorophore for Single-Molecule Imaging in Live Cells. Journal of the American Chemical Society, 2008, 130, 9204-9205.	13.7	200
39	Single molecules of the bacterial actin MreB undergo directed treadmilling motion in Caulobacter crescentus. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10929-10934.	7.1	195
40	Optical Spectroscopy of Single Impurity Molecules in Solids. Angewandte Chemie International Edition in English, 1993, 32, 457-476.	4.4	192
41	Singleâ€Molecule Spectroscopy, Imaging, and Photocontrol: Foundations for Superâ€Resolution Microscopy (Nobel Lecture). Angewandte Chemie - International Edition, 2015, 54, 8067-8093.	13.8	191
42	High-speed photorefractive polymer composites. Applied Physics Letters, 1998, 73, 1490-1492.	3.3	186
43	Simultaneous Imaging of Individual Molecules Aligned Both Parallel and Perpendicular to the Optic Axis. Physical Review Letters, 1998, 81, 5322-5325.	7.8	180
44	Simultaneous, accurate measurement of the 3D position and orientation of single molecules. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19087-19092.	7.1	176
45	Localizing and Tracking Single Nanoscale Emitters in Three Dimensions with High Spatiotemporal Resolution Using a Double-Helix Point Spread Function. Nano Letters, 2010, 10, 211-218.	9.1	164
46	Superresolution Imaging of Targeted Proteins in Fixed and Living Cells Using Photoactivatable Organic Fluorophores. Journal of the American Chemical Society, 2010, 132, 15099-15101.	13.7	164
47	Optical Probing of Single Molecules of Terrylene in a Shpol'kii Matrix: A Two-State Single-Molecule Switch. The Journal of Physical Chemistry, 1994, 98, 7382-7389.	2.9	162
48	ADP-induced rocking of the kinesin motor domain revealed by single-molecule fluorescence polarization microscopy. Nature Structural Biology, 2001, 8, 540-544.	9.7	160
49	Three-dimensional tracking of single mRNA particles in Saccharomyces cerevisiae using a double-helix point spread function. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17864-17871.	7.1	157
50	Optical modification of a single impurity molecule in a solid. Nature, 1992, 355, 335-337.	27.8	151
51	SINGLE-MOLECULE FLUORESCENCE SPECTROSCOPY AND MICROSCOPY OF BIOMOLECULAR MOTORS. Annual Review of Physical Chemistry, 2004, 55, 79-96.	10.8	151
52	Controlling Brownian motion of single protein molecules and single fluorophores in aqueous buffer. Optics Express, 2008, 16, 6941.	3.4	148
53	Watching conformational- and photodynamics of single fluorescent proteins in solution. Nature Chemistry, 2010, 2, 179-186.	13.6	143
54	3D single-molecule super-resolution microscopy with a tilted light sheet. Nature Communications, 2018, 9, 123.	12.8	143

#	Article	IF	Citations
55	Single-Molecule Spectroscopy and Imaging of Biomolecules in Living Cells. Analytical Chemistry, 2010, 82, 2192-2203.	6.5	140
56	The Fluorescence Dynamics of Single Molecules of Green Fluorescent Protein. Journal of Physical Chemistry A, 1999, 103, 10553-10560.	2.5	139
57	Three-dimensional superresolution colocalization of intracellular protein superstructures and the cell surface in live Caulobacter crescentus. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E1102-10.	7.1	131
58	Photorefractive Properties of Poly(N-vinyl carbazole)-Based Composites for High-Speed Applications. Chemistry of Materials, 1999, 11, 1784-1791.	6.7	129
59	Extending Single-Molecule Microscopy Using Optical Fourier Processing. Journal of Physical Chemistry B, 2014, 118, 8313-8329.	2.6	129
60	Multicolour localization microscopy by point-spread-function engineering. Nature Photonics, 2016, 10, 590-594.	31.4	128
61	Visualization of the movement of single histidine kinase molecules in live Caulobacter cells. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15921-15926.	7.1	127
62	Super-resolution fluorescence imaging with single molecules. Current Opinion in Structural Biology, 2013, 23, 778-787.	5.7	127
63	Corkscrew point spread function for far-field three-dimensional nanoscale localization of pointlike objects. Optics Letters, 2011, 36, 202.	3.3	124
64	The Role of Molecular Dipole Orientation in Singleâ€Molecule Fluorescence Microscopy and Implications for Superâ€Resolution Imaging. ChemPhysChem, 2014, 15, 587-599.	2.1	121
65	Net two-beam-coupling gain in a polymeric photorefractive material. Optics Letters, 1993, 18, 1044.	3.3	119
66	Cholesterol Depletion Suppresses the Translational Diffusion of Class II Major Histocompatibility Complex Proteins in the Plasma Membrane. Biophysical Journal, 2005, 88, 334-347.	0.5	118
67	High performance photorefractive polymer with improved stability. Applied Physics Letters, 1997, 70, 1515-1517.	3.3	117
68	Near-Field Optical Spectroscopy of Individual Molecules in Solids. Physical Review Letters, 1994, 73, 2764-2767.	7.8	116
69	Structure and Dynamics in Solids As Probed by Optical Spectroscopy. The Journal of Physical Chemistry, 1996, 100, 13251-13262.	2.9	116
70	Microscopy beyond the diffraction limit using actively controlled single molecules. Journal of Microscopy, 2012, 246, 213-220.	1.8	112
71	Single-Molecule Fluorescence Resonant Energy Transfer in Calcium Concentration Dependent Cameleon. Journal of Physical Chemistry B, 2000, 104, 3676-3682.	2.6	108
72	Small-Molecule Labeling of Live Cell Surfaces for Three-Dimensional Super-Resolution Microscopy. Journal of the American Chemical Society, 2014, 136, 14003-14006.	13.7	108

#	Article	IF	Citations
73	Super-resolution Microscopy with Single Molecules in Biology and Beyondâ€"Essentials, Current Trends, and Future Challenges. Journal of the American Chemical Society, 2020, 142, 17828-17844.	13.7	108
74	Extending Microscopic Resolution with Single-Molecule Imaging and Active Control. Annual Review of Biophysics, 2012, 41, 321-342.	10.0	107
75	STED Microscopy with Optimized Labeling Density Reveals 9-Fold Arrangement of a Centriole Protein. Biophysical Journal, 2012, 102, 2926-2935.	0.5	106
76	Cholesterol Depletion Induces Solid-like Regions in the Plasma Membrane. Biophysical Journal, 2006, 90, 927-938.	0.5	105
77	Novel Fluorophores for Single-Molecule Imaging. Journal of the American Chemical Society, 2003, 125, 1174-1175.	13.7	104
78	Three-dimensional localization precision of the double-helix point spread function versus astigmatism and biplane. Applied Physics Letters, 2010, 97, 161103.	3.3	104
79	A Selenium Analogue of Firefly <scp>D</scp>â€Luciferin with Redâ€Shifted Bioluminescence Emission. Angewandte Chemie - International Edition, 2012, 51, 3350-3353.	13.8	104
80	Spectroscopic determination of trap density in C60-sensitized photorefractive polymers. Chemical Physics Letters, 1998, 291, 553-561.	2.6	103
81	Enhanced DNA imaging using super-resolution microscopy and simultaneous single-molecule orientation measurements. Optica, 2016, 3, 659.	9.3	103
82	Optical spectra and kinetics of single impurity molecules in a polymer: spectral diffusion and persistent spectral hole burning. Journal of the Optical Society of America B: Optical Physics, 1992, 9, 829.	2.1	102
83	Analytical Tools To Distinguish the Effects of Localization Error, Confinement, and Medium Elasticity on the Velocity Autocorrelation Function. Biophysical Journal, 2012, 102, 2443-2450.	0.5	102
84	Single-molecule motions enable direct visualization of biomolecular interactions in solution. Nature Methods, 2014, 11, 555-558.	19.0	102
85	Rotational Mobility of Single Molecules Affects Localization Accuracy in Super-Resolution Fluorescence Microscopy. Nano Letters, 2013, 13, 3967-3972.	9.1	101
86	Spectral analysis of strongly enhanced visible light transmission through single C-shaped nanoapertures. Applied Physics Letters, 2004, 85, 648-650.	3.3	98
87	Removing orientation-induced localization biases in single-molecule microscopy using a broadband metasurface mask. Nature Photonics, 2016, 10, 459-462.	31.4	98
88	Photophysics ofDsRed, a Red Fluorescent Protein, from the Ensemble to the Single-Molecule Level. Journal of Physical Chemistry B, 2001, 105, 5048-5054.	2.6	97
89	Spontaneous Oscillation and Self-Pumped Phase Conjugation in a Photorefractive Polymer Optical Amplifier. Science, 1997, 277, 549-552.	12.6	96
90	Azido Pushâ^'Pull Fluorogens Photoactivate to Produce Bright Fluorescent Labels. Journal of Physical Chemistry B, 2010, 114, 14157-14167.	2.6	96

#	Article	IF	Citations
91	Integrated semiconductor vertical-cavity surface-emitting lasers and PIN photodetectors for biomedical fluorescence sensing. IEEE Journal of Quantum Electronics, 2004, 40, 491-498.	1.9	95
92	Mechanism of photon-gated persistent spectral hole burning in metal-tetrabenzoporphyrin/halomethane systems: donor-acceptor electron transfer. The Journal of Physical Chemistry, 1987, 91, 3998-4004.	2.9	94
93	Quantitative Multicolor Subdiffraction Imaging of Bacterial Protein Ultrastructures in Three Dimensions. Nano Letters, 2013, 13, 987-993.	9.1	94
94	High-Resolution Optical Spectroscopy of Single Molecules in Solids. Accounts of Chemical Research, 1996, 29, 563-571.	15.6	93
95	DCDHF Fluorophores for Singleâ€Molecule Imaging in Cells. ChemPhysChem, 2009, 10, 55-65.	2.1	93
96	Conformational Dynamics of Single G Protein-Coupled Receptors in Solution. Journal of Physical Chemistry B, 2011, 115, 13328-13338.	2.6	93
97	Fluorescence Behavior of Single-Molecule pH-Sensors. Single Molecules, 2000, 1, 17-23.	0.9	91
98	Bacterial scaffold directs pole-specific centromere segregation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2046-55.	7.1	91
99	Single molecule spectroscopy: maximum emission rate and saturation intensity. Optics Communications, 1995, 114, 83-88.	2.1	90
100	C60sensitization of a photorefractive polymer. Applied Physics Letters, 1992, 61, 2967-2969.	3.3	89
101	Probing Single Biomolecules in Solution Using the Anti-Brownian Electrokinetic (ABEL) Trap. Accounts of Chemical Research, 2012, 45, 1955-1964.	15.6	89
102	Single-molecule imaging of Hedgehog pathway protein Smoothened in primary cilia reveals binding events regulated by Patched1. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8320-8325.	7.1	89
103	Single-Molecule Identification of Quenched and Unquenched States of LHCII. Journal of Physical Chemistry Letters, 2015, 6, 860-867.	4.6	88
104	Threeâ€Dimensional Superâ€Resolution Imaging of the Midplane Protein FtsZ in Live Caulobacter crescentus Cells Using Astigmatism. ChemPhysChem, 2012, 13, 1007-1012.	2.1	87
105	Correcting field-dependent aberrations with nanoscale accuracy in three-dimensional single-molecule localization microscopy. Optica, 2015, 2, 985.	9.3	87
106	Optical detection and probing of single dopant molecules of pentacene in a p-terphenyl host crystal by means of absorption spectroscopy. The Journal of Physical Chemistry, 1990, 94, 1237-1248.	2.9	85
107	Two-beam coupling measurements of grating phase in a photorefractive polymer. Journal of the Optical Society of America B: Optical Physics, 1992, 9, 1642.	2.1	85
108	Principal-components analysis of shape fluctuations of single DNA molecules. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12622-12627.	7.1	85

#	Article	IF	Citations
109	Fluorescence bleaching reveals asymmetric compartment formation prior to cell division inCaulobacter. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8235-8240.	7.1	83
110	Super-Resolution Imaging of the Nucleoid-Associated Protein HU in Caulobacter crescentus. Biophysical Journal, 2011, 100, L31-L33.	0.5	83
111	Those Blinking Single Molecules. Science, 1997, 277, 1059-1060.	12.6	82
112	An Adaptive Anti-Brownian Electrokinetic Trap with Real-Time Information on Single-Molecule Diffusivity and Mobility. ACS Nano, 2011, 5, 5792-5799.	14.6	81
113	Selective sequestration of signalling proteins in a membraneless organelle reinforces the spatial regulation of asymmetry in Caulobacter crescentus. Nature Microbiology, 2020, 5, 418-429.	13.3	81
114	Nonlinear Optical Chromophores as Nanoscale Emitters for Single-Molecule Spectroscopy. Accounts of Chemical Research, 2005, 38, 549-556.	15.6	80
115	Vibronic Spectroscopy of Individual Molecules in Solids. The Journal of Physical Chemistry, 1994, 98, 10377-10390.	2.9	79
116	Single-molecule spectroscopy and imaging over the decades. Faraday Discussions, 2015, 184, 9-36.	3.2	79
117	Single-molecule spectroscopy reveals photosynthetic LH2 complexes switch between emissive states. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10899-10903.	7.1	78
118	Optische Spektroskopie von einzelnen DotierungsmolekÃ¼len in FestkÃ¶rpern. Angewandte Chemie, 1993, 105, 537-557.	2.0	77
119	Experimental and Theoretical Investigations of Environmentally Sensitive Single-Molecule Fluorophoresâ€. Journal of Physical Chemistry B, 2004, 108, 10465-10473.	2.6	76
120	Long-Wavelength Analogue of PRODAN:Â Synthesis and Properties of Anthradan, a Fluorophore with a 2,6-Donorâ^'Acceptor Anthracene Structure. Journal of Organic Chemistry, 2006, 71, 9651-9657.	3.2	75
121	Single-molecule mountains yield nanoscale cell images. Nature Methods, 2006, 3, 781-782.	19.0	74
122	Cellular Inclusion Bodies of Mutant Huntingtin Exon 1 Obscure Small Fibrillar Aggregate Species. Scientific Reports, 2012, 2, 895.	3.3	74
123	Quantitative Super-Resolution Microscopy of the Mammalian Glycocalyx. Developmental Cell, 2019, 50, 57-72.e6.	7.0	74
124	Sensing cooperativity in ATP hydrolysis for single multisubunit enzymes in solution. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16962-16967.	7.1	73
125	Cryogenic single-molecule fluorescence annotations for electron tomography reveal in situ organization of key proteins in Caulobacter. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13937-13944.	7.1	73
126	Genome-wide CRISPR screens reveal a specific ligand for the glycan-binding immune checkpoint receptor Siglec-7. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	73

#	Article	IF	Citations
127	Cy3-Cy5 Covalent Heterodimers for Single-Molecule Photoswitching. Journal of Physical Chemistry B, 2008, 112, 11878-11880.	2.6	72
128	Photophysical Properties of Acene DCDHF Fluorophores:Â Long-Wavelength Single-Molecule Emitters Designed for Cellular Imaging. Journal of Physical Chemistry A, 2007, 111, 8934-8941.	2.5	70
129	Statistical Fine Structure of Inhomogeneously Broadened Absorption Lines. Physical Review Letters, 1987, 59, 2705-2708.	7.8	69
130	Systematics of two-wave mixing in a photorefractive polymer. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 905.	2.1	69
131	Gold bowtie nanoantennas for surface-enhanced Raman scattering under controlled electrochemical potential. Chemical Physics Letters, 2007, 446, 339-343.	2.6	69
132	Optimal strategy for trapping single fluorescent molecules inÂsolution using the ABEL trap. Applied Physics B: Lasers and Optics, 2010, 99, 23-30.	2.2	69
133	Chromosomal locus tracking with proper accounting of static and dynamic errors. Physical Review E, 2015, 91, 062716.	2.1	69
134	Vibrational analysis of the dispersed fluorescence from single molecules of terrylene in polyethylene. Chemical Physics Letters, 1993, 213, 325-332.	2.6	68
135	Polarized Fluorescence Microscopy of Individual and Many Kinesin Motors Bound to Axonemal Microtubules. Biophysical Journal, 2001, 81, 2851-2863.	0.5	68
136	Monolithically integrated semiconductor fluorescence sensor for microfluidic applications. Sensors and Actuators B: Chemical, 2005, 105, 393-399.	7.8	68
137	A bisected pupil for studying single-molecule orientational dynamics and its application to three-dimensional super-resolution microscopy. Applied Physics Letters, 2014, 104, 193701.	3.3	68
138	Optical studies of single terrylene molecules in polyethylene. Journal of Luminescence, 1993, 56, 1-14.	3.1	67
139	Title is missing!. Advanced Functional Materials, 2002, 12, 621-629.	14.9	65
140	Deep learning in single-molecule microscopy: fundamentals, caveats, and recent developments [Invited]. Biomedical Optics Express, 2020, 11, 1633.	2.9	65
141	Photoconductivity studies of photorefractive polymers. Journal of the Optical Society of America B: Optical Physics, 1992, 9, 2059.	2.1	64
142	Poly(silane)-based high-mobility photorefractive polymers. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 2306.	2.1	64
143	Spatial organization and dynamics of RNase E and ribosomes in Caulobacter crescentus. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3712-E3721.	7.1	64
144	Single-molecule optical spectroscopy of autofluorescent proteins. Journal of Chemical Physics, 2002, 117, 10925-10937.	3.0	63

#	Article	IF	Citations
145	Correlations of three-dimensional motion of chromosomal loci in yeast revealed by the double-helix point spread function microscope. Molecular Biology of the Cell, 2014, 25, 3619-3629.	2.1	63
146	Measurement of quantum efficiencies for persistent spectral hole burning. The Journal of Physical Chemistry, 1984, 88, 6459-6460.	2.9	62
147	Holographic digital data storage in a photorefractive polymer. Optics Letters, 1996, 21, 890.	3.3	60
148	Image amplification and novelty filtering with a photorefractive polymer. Applied Physics Letters, 2000, 76, 3358-3360.	3.3	60
149	A Comparison of Through-the-Objective Total Internal Reflection Microscopy and Epifluorescence Microscopy for Single-Molecule Fluorescence Imaging. Single Molecules, 2001, 2, 191-201.	0.9	60
150	Single-molecule orientation measurements with a quadrated pupil. Optics Letters, 2013, 38, 1521.	3.3	60
151	Two-color, photon-gated spectral hole-burning in an organic material. Chemical Physics Letters, 1985, 118, 611-616.	2.6	58
152	Can single-photon processes provide useful materials for frequency-domain optical storage?. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 915.	2.1	58
153	Super-Resolution Fluorescence of Huntingtin Reveals Growth of Globular Species into Short Fibers and Coexistence of Distinct Aggregates. ACS Chemical Biology, 2014, 9, 2767-2778.	3.4	58
154	Homodyne detection of ultrasonic surface displacements using two-wave mixing in photorefractive polymers. Optics Communications, 1999, 162, 79-84.	2.1	57
155	Distinct Constrictive Processes, Separated in Time and Space, Divide Caulobacter Inner and Outer Membranes. Journal of Bacteriology, 2005, 187, 6874-6882.	2.2	57
156	Measurement-based estimation of global pupil functions in 3D localization microscopy. Optics Express, 2017, 25, 7945.	3.4	57
157	Enzymatic activation of nitro-aryl fluorogens in live bacterial cells for enzymatic turnover-activated localization microscopy. Chemical Science, 2013, 4, 220-225.	7.4	56
158	Photorefractive Polymers Based on Dual-Function Dopants. The Journal of Physical Chemistry, 1995, 99, 4096-4105.	2.9	55
159	Cby1 promotes Ahi1 recruitment to a ring-shaped domain at the centrioleâ€“cilium interface and facilitates proper cilium formation and function. Molecular Biology of the Cell, 2014, 25, 2919-2933.	2.1	55
160	Metabolic precision labeling enables selective probing of O-linked N -acetylgalactosamine glycosylation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25293-25301.	7.1	55
161	Diffusion of Lipid-like Single-Molecule Fluorophores in the Cell Membrane. Journal of Physical Chemistry B, 2006, 110, 8151-8157.	2.6	54
162	Single-Molecule Motions of Oligoarginine Transporter Conjugates on the Plasma Membrane of Chinese Hamster Ovary Cells. Journal of the American Chemical Society, 2008, 130, 9364-9370.	13.7	54

#	Article	IF	Citations
163	Azimuthal Polarization Filtering for Accurate, Precise, and Robust Single-Molecule Localization Microscopy. Nano Letters, 2014, 14, 6407-6413.	9.1	54
164	Comment on â€˜â€˜Single pentacene molecules detected by fluorescence excitation in ap-terphenyl crystalâ€™â€™. Physical Review Letters, 1991, 66, 1376-1376.	7.8	53
165	Dispersed fluorescence spectra of single molecules of pentacene in p-terphenyl. The Journal of Physical Chemistry, 1993, 97, 2491-2493.	2.9	53
166	Redox cycling and kinetic analysis of single molecules of solution-phase nitrite reductase. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17269-17274.	7.1	53
167	Lifetime and Spectrally Resolved Characterization of the Photodynamics of Single Fluorophores in Solution Using the Anti-Brownian Electrokinetic Trap. Journal of Physical Chemistry B, 2013, 117, 4641-4648.	2.6	53
168	Super-resolution Imaging of Live Bacteria Cells Using a Genetically Directed, Highly Photostable Fluoromodule. Journal of the American Chemical Society, 2016, 138, 10398-10401.	13.7	53
169	Second-order cascading as the origin of large third-order effects in organic single-crystal-core fibers. Optics Letters, 1994, 19, 868.	3.3	51
170	Single-photon sources based on single molecules in solids. New Journal of Physics, 2004, 6, 88-88.	2.9	50
171	Molecules and Methods for Super-Resolution Imaging. Methods in Enzymology, 2010, 475, 27-59.	1.0	49
172	Fluorescent Saxitoxins for Live Cell Imaging of Single Voltage-Gated Sodium Ion Channels beyond the Optical Diffraction Limit. Chemistry and Biology, 2012, 19, 902-912.	6.0	49
173	The double-helix microscope super-resolves extended biological structures by localizing single blinking molecules in three dimensions with nanoscale precision. Applied Physics Letters, 2012, 100, 153701.	3.3	48
174	Excitation of a single molecule on the surface of a spherical microcavity. Applied Physics Letters, 1997, 71, 297-299.	3.3	47
175	The influence of tetrahydroquinoline rings in dicyanomethylenedihydrofuran (DCDHF) single-molecule fluorophores. Tetrahedron, 2007, 63, 103-114.	1.9	47
176	Subâ€Diffraction Imaging of Huntingtin Protein Aggregates by Fluorescence Blinkâ€Microscopy and Atomic Force Microscopy. ChemPhysChem, 2011, 12, 2387-2390.	2.1	47
177	Fluorescence correlation spectroscopy at high concentrations using gold bowtie nanoantennas. Chemical Physics, 2012, 406, 3-8.	1.9	47
178	Subsecond grating growth in a photorefractive polymer. Optics Letters, 1992, 17, 1107.	3.3	46
179	Light sheet approaches for improved precision in 3D localization-based super-resolution imaging in mammalian cells [Invited]. Optics Express, 2018, 26, 13122.	3.4	46
180	Accurate and rapid background estimation in single-molecule localization microscopy using the deep neural network BGnet. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 60-67.	7.1	46

#	Article	IF	Citations
181	Amplified scattering in a high-gain photorefractive polymer. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 901.	2.1	45
182	High-performance photorefractive polymer composite with 2-dicyanomethylen-3-cyano-2,5-dihydrofuran chromophore. Applied Physics Letters, 2001, 79, 4274-4276.	3.3	45
183	Bright, Red Single-Molecule Emitters: Synthesis and Properties of Environmentally Sensitive Dicyanomethylenedihydrofuran (DCDHF) Fluorophores with Bisaromatic Conjugation. Chemistry of Materials, 2009, 21, 797-810.	6.7	45
184	Single-molecule trapping and spectroscopy reveals photophysical heterogeneity of phycobilisomes quenched by Orange Carotenoid Protein. Nature Communications, 2019, 10, 1172.	12.8	45
185	Motional dynamics of single Patched1 molecules in cilia are controlled by Hedgehog and cholesterol. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5550-5557.	7.1	45
186	Opposing Effects of Cohesin and Transcription on CTCF Organization Revealed by Super-resolution Imaging. Molecular Cell, 2020, 80, 699-711.e7.	9.7	45
187	Beyond the bottleneck: submicrosecond hole burning in phthalocyanine. Journal of the Optical Society of America B: Optical Physics, 1984, 1, 341.	2.1	44
188	Cryogenic Super-Resolution Fluorescence and Electron Microscopy Correlated at the Nanoscale. Annual Review of Physical Chemistry, 2021, 72, 253-278.	10.8	44
189	Single-Molecule and Superresolution Imaging in Live Bacteria Cells. Cold Spring Harbor Perspectives in Biology, 2010, 2, a000448-a000448.	5.5	43
190	Identification of PAmKate as a Red Photoactivatable Fluorescent Protein for Cryogenic Super-Resolution Imaging. Journal of the American Chemical Society, 2018, 140, 12310-12313.	13.7	43
191	Optical methods for exploring dynamics of single copies of green fluorescent protein. , 1999, 36, 232-238.		42
192	Self-trapping of light in an organic photorefractive glass. Optics Letters, 2003, 28, 2509.	3.3	42
193	Single-Molecule Nanoprobes Explore Defects in Spin-Grown Crystalsâ€. Journal of Physical Chemistry B, 2006, 110, 18939-18944.	2.6	42
194	Persistent nonphotochemical spectral hole dynamics for an infrared vibrational mode in alkali halide crystals. Physical Review B, 1983, 28, 7244-7259.	3.2	41
195	Synthesis of Fluorescently Labeled Polymers and Their Use in Single-Molecule Imaging. Macromolecules, 2002, 35, 8122-8125.	4.8	41
196	Role of Temperature in Controlling Performance of Photorefractive Organic Glasses. ChemPhysChem, 2003, 4, 732-744.	2.1	41
197	Interferometry of a single nanoparticle using the Gouy phase of a focused laser beam. Optics Communications, 2007, 280, 487-491.	2.1	41
198	Determining the rotational mobility of a single molecule from a single image: a numerical study. Optics Express, 2015, 23, 4255.	3.4	41

#	Article	IF	Citations
199	FM spectroscopy detection of stimulated Raman gain. Optics Letters, 1983, 8, 108.	3.3	40
200	Gated spectral hole-burning for frequency domain optical recording. Optics Communications, 1986, 58, 249-254.	2.1	40
201	Synthesis of Bifunctional Photorefractive Polymers with Net Gain:Â Design Strategy Amenable to Combinatorial Optimization. Journal of the American Chemical Society, 1998, 120, 9680-9681.	13.7	40
202	The anti-Brownian electrophoretic trap (ABEL trap): fabrication and software. , 2005, 5699, 296.		40
203	Enhancement of the Fluorescence of the Blue Fluorescent Proteins by High Pressure or Low Temperature. Journal of Physical Chemistry B, 2005, 109, 12976-12981.	2.6	39
204	Delayed emergence of subdiffraction-sized mutant huntingtin fibrils following inclusion body formation. Quarterly Reviews of Biophysics, 2016, 49, e2.	5.7	39
205	Direct single-molecule measurements of phycocyanobilin photophysics in monomeric C-phycocyanin. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9779-9784.	7.1	39
206	Monolithic Photorefractive Organic Glasses with Large Coupling Gain and Strong Beam Fanning. Advanced Materials, 2002, 14, 313-317.	21.0	38
207	High-performance photorefractive organic glass with near-infrared sensitivity. Applied Physics Letters, 2003, 82, 3602-3604.	3.3	38
208	Soliton-induced waveguides in an organic photorefractive glass. Optics Letters, 2005, 30, 519.	3.3	37
209	Dissecting pigment architecture of individual photosynthetic antenna complexes in solution. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13880-13885.	7.1	37
210	Statistical fine structure in the inhomogeneously broadened electronic origin of pentacene in pâ€terphenyl. Journal of Chemical Physics, 1988, 89, 1768-1779.	3.0	35
211	Synthesis and Photorefractive Properties of Multifunctional Glasses. Chemistry of Materials, 2003, 15, 1156-1164.	6.7	34
212	Photorefractive Properties of Poly(siloxane)-triarylamine-Based Composites for High-Speed Applications. Journal of Physical Chemistry B, 2003, 107, 4732-4737.	2.6	34
213	Internal Mechanical Response of a Polymer in Solution. Physical Review Letters, 2007, 98, 116001.	7.8	33
214	Observation of live chromatin dynamics in cells via 3D localization microscopy using Tetrapod point spread functions. Biomedical Optics Express, 2017, 8, 5735.	2.9	33
215	Accurate phase retrieval of complex 3D point spread functions with deep residual neural networks. Applied Physics Letters, 2019, 115, 251106.	3.3	33
216	Novel fibrillar structure in the inversin compartment of primary cilia revealed by 3D single-molecule superresolution microscopy. Molecular Biology of the Cell, 2020, 31, 619-639.	2.1	32

#	Article	IF	Citations
217	Optical trap activation in a photorefractive polymer. Optics Letters, 1994, 19, 1822.	3.3	31
218	Easy-DHPSF open-source software for three-dimensional localization of single molecules with precision beyond the optical diffraction limit. Protocol Exchange, 0, , .	0.3	31
219	Photochemical hole-burning in a protonated phthalocyanine with GaAlAs diode lasers. Chemical Physics Letters, 1985, 114, 491-496.	2.6	30
220	Optical properties of poly(N-vinylcarbazole)-based guest-host photorefractive polymer systems. Applied Optics, 1994, 33, 2218.	2.1	30
221	Temperature dependence of photon-gated persistent spectral hole-burning for the meso-tetra-p-tolyl-Zn-tetrabenzoporphyrin/chloroform system in poly(methylmethacrylate). Chemical Physics, 1990, 144, 71-79.	1.9	29
222	Electric-field-switchable stratified volume holograms in photorefractive polymers. Optics Letters, 1994, 19, 1480.	3.3	29
223	Single-Molecule Tracking. Methods in Molecular Biology, 2007, 398, 193-219.	0.9	28
224	ATP-responsive biomolecular condensates tune bacterial kinase signaling. Science Advances, 2022, 8, eabm6570.	10.3	28
225	Quasinondestructive Readout in a Photorefractive Polymer. Physical Review Letters, 1994, 73, 2047-2050.	7.8	27
226	Bulk and Single-Molecule Characterization of an Improved Molecular Beacon Utilizing H-Dimer Excitonic Behavior. Journal of Physical Chemistry B, 2007, 111, 7929-7931.	2.6	27
227	Photon-gated spectral hole burning by donor-acceptor electron transfer. Optics Letters, 1987, 12, 370.	3.3	26
228	Lithographic positioning of fluorescent molecules on high-Q photonic crystal cavities. Applied Physics Letters, 2009, 95, 123113.	3.3	26
229	Single-molecule spectroscopy of photosynthetic proteins in solution: exploration of structureâ€“function relationships. Chemical Science, 2014, 5, 2933-2939.	7.4	26
230	Fast burning of persistent spectral holes in small laser spots using photonâ€gated materials. Applied Physics Letters, 1987, 50, 430-432.	3.3	25
231	Intracavity frequency doubling of a Nd:YAG laser with an organic nonlinear optical crystal. Applied Physics Letters, 1990, 57, 537-539.	3.3	25
232	Measurement of the spatial phase shift in high-gain photorefractive materials. Optics Letters, 1997, 22, 874.	3.3	25
233	Probing the Sequence of Conformationally Induced Polarity Changes in the Molecular Chaperonin GroEL with Fluorescence Spectroscopy. Journal of Physical Chemistry B, 2005, 109, 24517-24525.	2.6	25
234	The double-helix point spread function enables precise and accurate measurement of 3D single-molecule localization and orientation. Proceedings of SPIE, 2013, 8590, 85900.	0.8	25

#	Article	IF	Citations
235	Single-molecule diffusometry reveals the nucleotide-dependent oligomerization pathways of Nicotiana tabacum Rubisco activase. Journal of Chemical Physics, 2018, 148, 123319.	3.0	25
236	Topologically-guided continuous protein crystallization controls bacterial surface layer self-assembly. Nature Communications, 2019, 10, 2731.	12.8	25
237	Frequency Domain Optical Storage and Other Applications of Persistent Spectral Hole-Burning. Topics in Current Physics, 1988, , 251-307.	0.5	25
238	Photon-Gated Persistent Spectral Hole-Burning. Japanese Journal of Applied Physics, 1989, 28, 221.	1.5	25
239	Reading and writing of photochemical holes using GaAlAs-diode lasers. Optics Letters, 1983, 8, 280.	3.3	24
240	A novel fluorophore for two-photon-excited single-molecule fluorescence. Chemical Physics, 2005, 318, 7-11.	1.9	24
241	Modifications of DCDHF single molecule fluorophores to impart water solubility. Tetrahedron Letters, 2007, 48, 3471-3474.	1.4	24
242	Interferometric Scattering Enables Fluorescence-Free Electrokinetic Trapping of Single Nanoparticles in Free Solution. Nano Letters, 2019, 19, 4112-4117.	9.1	24
243	Anharmonic vibrational relaxation dynamics for a molecular impurity mode in alkali halide crystals. Physical Review B, 1984, 29, 6694-6708.	3.2	23
244	Optical measurements of single molecules in cells. TrAC - Trends in Analytical Chemistry, 2003, 22, 544-548.	11.4	23
245	T-Plastin reinforces membrane protrusions to bridge matrix gaps during cell migration. Nature Communications, 2020, 11, 4818.	12.8	23
246	Scanning interferometric microscopy for the detection of ultrasmall phase shifts in condensed matter. Physical Review A, 2006, 73, .	2.5	22
247	The regulatory switch of F₁-ATPase studied by single-molecule FRET in the ABEL trap. Proceedings of SPIE, 2014, 8950, 89500H.	0.8	21
248	Revealing Nanoscale Morphology of the Primary Cilium Using Super-Resolution Fluorescence Microscopy. Biophysical Journal, 2019, 116, 319-329.	0.5	21
249	Persistent Holes in the Spectra of Localized Vibrational Modes in Crystalline Solids. Physical Review Letters, 1982, 49, 398-401.	7.8	20
250	Finding a single molecule in a haystack. Optical detection and spectroscopy of single absorbers in solids. Analytical Chemistry, 1989, 61, 1217A-1223A.	6.5	20
251	Vivronic spectroscopy of single molecules: Exploring electronic-vibrational frequency correlations within an inhomogeneous distribution. Journal of Luminescence, 1994, 58, 161-167.	3.1	20
252	Single-Molecule Spectroscopy and Quantum Optics in Solids. Advances in Atomic, Molecular and Optical Physics, 1998, 38, 193-236.	2.3	20

#	Article	IF	Citations
253	Well-Controlled Living Polymerization of Perylene-Labeled Polyisoprenes and Their Use in Single-Molecule Imaging. Macromolecules, 2006, 39, 8121-8127.	4.8	20
254	Persistent spectral hole burning for Râ€™ color centers in LiF crystals: Statics, dynamics, and external-field effects. Physical Review B, 1986, 33, 5702-5716.	3.2	19
255	Action of the Chaperonin GroEL/ES on a Non-native Substrate Observed with Single-Molecule FRET. Journal of Molecular Biology, 2010, 401, 553-563.	4.2	19
256	Hardware-based anti-Brownian electrokinetic trap (ABEL trap) for single molecules: control loop simulations and application to ATP binding stoichiometry in multi-subunit enzymes. Proceedings of SPIE, 2008, 7038, 1-12.	0.8	18
257	Photo-Induced Conformational Flexibility in Single Solution-Phase Peridinin-Chlorophyll-Proteins. Journal of Physical Chemistry A, 2013, 117, 8399-8406.	2.5	18
258	Addressing systematic errors in axial distance measurements in single-emitter localization microscopy. Optics Express, 2020, 28, 18616.	3.4	18
259	Anharmonic Relaxation Times of Molecular Vibrational Modes in Alkali Halide Crystals. Physical Review Letters, 1981, 47, 1082-1085.	7.8	17
260	High-efficiency photochemical hole burning for an infrared color center. Physical Review B, 1985, 32, 1270-1277.	3.2	17
261	Pseudo-Stark effect and FM/Stark double-modulation spectroscopy for the detection of statistical fine structure in alexandrite. Chemical Physics Letters, 1988, 151, 102-108.	2.6	17
262	Detection of persistent spectral holes using ultrasonic modulation. Journal of the Optical Society of America B: Optical Physics, 1984, 1, 349.	2.1	16
263	Single Molecules and Atoms. Accounts of Chemical Research, 1996, 29, 561-562.	15.6	16
264	Widespread mRNA Association with Cytoskeletal Motor Proteins and Identification and Dynamics of Myosin-Associated mRNAs in S. cerevisiae. PLoS ONE, 2012, 7, e31912.	2.5	16
265	Thirteen Years of Single-Molecule Spectroscopy in Physical Chemistry and Biophysics. Springer Series in Chemical Physics, 2001, , 32-61.	0.2	16
266	Fundamentals of single-molecule spectroscopy in solids. Journal of Luminescence, 1994, 60-61, 997-1002.	3.1	15
267	In vivo three-dimensional superresolution fluorescence tracking using a double-helix point spread function. Proceedings of SPIE, 2010, 7571, 75710Z.	0.8	15
268	Quantifying Transient 3D Dynamical Phenomena of Single mRNA Particles in Live Yeast Cell Measurements. Journal of Physical Chemistry B, 2013, 117, 15701-15713.	2.6	15
269	Resolving Mixtures in Solution by Single-Molecule Rotational Diffusivity. Nano Letters, 2018, 18, 5279-5287.	9.1	15
270	Asymmetric division yields progeny cells with distinct modes of regulating cell cycle-dependent chromosome methylation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15661-15670.	7.1	15

#	Article	IF	Citations
271	Infrared hole-burning spectroscopy of matrix-isolated ReO_4^â^' molecules. Optics Letters, 1981, 6, 431.	3.3	13
272	Photorefractive polymers - A status report. Pure and Applied Chemistry, 1995, 67, 33-38.	1.9	13
273	Gain enhancement by moving gratings in a photorefractive polymer. Optics Communications, 1998, 145, 145-149.	2.1	13
274	Multi-color super-resolution imaging to study human coronavirus RNA during cellular infection. Cell Reports Methods, 2022, 2, 100170.	2.9	13
275	Photorefractivity in doped nonlinear organic polymers. , 1991, , .		12
276	Electric fieldâ€dependent nonphotorefractive gratings in a nonlinear photoconducting polymer. Applied Physics Letters, 1994, 64, 712-714.	3.3	12
277	<title>Photorefractivity in new organic polymeric materials</title>. , 1995, 2526, 82.		12
278	Visualization of Long Human Telomere Mimics by Single-Molecule Fluorescence Imaging. Journal of Physical Chemistry B, 2008, 112, 13184-13187.	2.6	12
279	Superresolution imaging in live Caulobacter crescentus cells using photoswitchable enhanced yellow fluorescent protein. Proceedings of SPIE, 2009, , .	0.8	12
280	Micrometerâ€sized DNAâ€“Singleâ€Fluorophoreâ€“DNA Supramolecule: Synthesis and Singleâ€Molecule Characterization. Small, 2009, 5, 2418-2423.	10.0	12
281	Viewpoint: Single Molecules at 31: Whatâ€™s Next?. Nano Letters, 2020, 20, 8427-8429.	9.1	12
282	High-Resolution Single-Molecule Spectroscopy. , 2011, , 381-417.		12
283	Improved transducer correction for standingâ€wave ultrasonic velocity measurements. Journal of Applied Physics, 1974, 45, 549-552.	2.5	11
284	Phase sensitive detection of persistent spectral holes using synchronous ultrasonic modulation. Applied Physics Letters, 1986, 48, 1181-1183.	3.3	11
285	Photoconduction and photorefraction in molecularly doped polymers. Synthetic Metals, 1993, 54, 9-19.	3.9	11
286	Photochromic polymers for the optical homodyne detection of ultrasonic surface displacements. Optics Letters, 2002, 27, 354.	3.3	11
287	Gold bowtie nanoantennas: improving the mismatch between light and nanoscale objects. , 0, , .		11
288	Polymers scale new heights. Nature, 1994, 371, 475-476.	27.8	10

#	Article	IF	Citations
289	Exploring Cell Surfaceâ€“Nanopillar Interactions with 3D Super-Resolution Microscopy. ACS Nano, 2022, 16, 192-210.	14.6	10
290	High-resolution spectroscopy of matrix-isolated ReO_4^â^' molecules. Optics Letters, 1981, 6, 254.	3.3	9
291	Dicyanomethylenedihydrofuran photorefractive materials. , 2002, 4802, 9.		9
292	Exploring Protein Superstructures and Dynamics in Live Bacterial Cells Using Single-Molecule and Superresolution Imaging. Methods in Molecular Biology, 2011, 783, 139-158.	0.9	9
293	Fast and parallel nanoscale three-dimensional tracking of heterogeneous mammalian chromatin dynamics. Molecular Biology of the Cell, 2022, 33, mbcE21100514.	2.1	9
294	Quantum Optics of a Single Molecule in a Solid. Optics and Photonics News, 1992, 3, 21.	0.5	8
295	STED super-resolution microscopy in Drosophila tissue and in mammalian cells. Proceedings of SPIE, 2011, 7910, .	0.8	8
296	Cryogenic Correlative Singleâ€Particle Photoluminescence Spectroscopy and Electron Tomography for Investigation of Nanomaterials. Angewandte Chemie - International Edition, 2020, 59, 15642-15648.	13.8	8
297	Single-Molecule Optical Spectroscopy and Imaging: From Early Steps to Recent Advances. Springer Series in Chemical Physics, 2010, , 25-60.	0.2	8
298	Single Molecules Solvated in Pores of Polyacrylamide Gels. Molecular Crystals and Liquid Crystals, 1996, 291, 31-39.	0.3	7
299	Optical Limiting in a Photorefractive Polymer. Materials Research Society Symposia Proceedings, 1997, 479, 199.	0.1	7
300	Robust hypothesis tests for detecting statistical evidence of two-dimensional and three-dimensional interactions in single-molecule measurements. Physical Review E, 2014, 89, 052705.	2.1	7
301	A localized adaptor protein performs distinct functions at the Caulobacter cell poles. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
302	Ratiometric Sensing of Redox Environments Inside Individual Carboxysomes Trapped in Solution. Journal of Physical Chemistry Letters, 2022, 13, 4455-4462.	4.6	7
303	Single-molecule nanophotonics in solids. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 48, 169-174.	3.5	6
304	Advances in Photorefractive Polymers: plastics for Holography and Optical Processing. Optics and Photonics News, 1995, 6, 24.	0.5	5
305	<title>Homodyne detection of ultrasonic surface displacements using two-wave mixing in photorefractive polymers</title>. , 1999, 3589, 22.		5
306	Single-Molecule Imaging of Wnt3A Protein Diffusion on Living Cell Membranes. Biophysical Journal, 2017, 113, 2762-2767.	0.5	5

#	Article	IF	Citations
307	Fluorescence Behavior of Single-Molecule pH-Sensors. Single Molecules, 2000, 1, 17-23.	0.9	5
308	Poled Epoxy Polymers for Optoelectronics. , 1991, , 433-445.		5
309	A bottom-up perspective on photodynamics and photoprotection in light-harvesting complexes using anti-Brownian trapping. Journal of Chemical Physics, 2022, 156, 070901.	3.0	5
310	FINDING A SINGLE MOLECULE IN A HAYSTACK. Analytical Chemistry, 1989, 61, 1217A-1223A.	6.5	4
311	Single molecule spectral diffusion in a solid detected via fluorescence spectroscopy. Journal of Luminescence, 1992, 53, 62-67.	3.1	4
312	Two-beam coupling measurements of grating phase in a photorefractive polymer: erratum. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 753.	2.1	4
313	Synthesis and properties of glassy organic multifunctional photorefractive materials. Optical Materials, 2003, 21, 353-357.	3.6	4
314	Large Single-Molecule Fluorescence Enhancements Produced by a Bowtie Nanoantenna. , 2009, , .		4
315	Spectrally resolved anti-Brownian electrokinetic (ABEL) trapping of single peridinin-chlorophyll-proteins in solution. Proceedings of SPIE, 2012, , .	0.8	4
316	Nanophotonics and Single Molecules. Springer Series in Biophysics, 2008, , 1-23.	0.4	4
317	Applications of Organic Second-Order Nonlinear Optical Materials. ACS Symposium Series, 1991, , 216-225.	0.5	3
318	<title>Recent progress in photorefractive polymers: materials and structures</title>. , 1994, 2285, 204.		3
319	<title>Mechanisms of photorefractivity in polymer composites</title>. , 1996, , .		3
320	Recent advances in photorefractive polymer materials. , 1997, 3147, 84.		3
321	Novel fluorophores for single-molecule imaging. , 2003, 5222, 150.		3
322	Laser background characterization in a monolithically integrated bio-fluorescence sensor. , 2004, 5318, 59.		3
323	Single-molecule electron spin resonance. Applied Magnetic Resonance, 2007, 31, 665-676.	1.2	3
324	Anti-Brownian ELectrokinetic (ABEL) trapping of single Î² 2 -adrenergic receptors in the absence and presence of agonist. , 2012, , .		3

#	Article	IF	Citations
325	Anti-Brownian Traps. , 2018, , 1-8.		3
326	Tilted light sheet microscopy with 3D point spread functions for single-molecule super-resolution imaging in mammalian cells. , 2018, 10500, .		3
327	Organic nonlinear optical materials and their device applications for frequency doubling, modulation, and switching. , 1990, 1337, 2.		2
328	Phase-sensitive optical detection of ballistic phonon heat pulses using frequency-modulation spectroscopy and persistent spectral holes. Physical Review B, 1991, 43, 1743-1755.	3.2	2
329	Photoconductivity of Photorefractive Polymers. Materials Research Society Symposia Proceedings, 1992, 277, 135.	0.1	2
330	<title>Probing single molecules in polyacrylamide gels</title>. , 1998, 3273, 165.		2
331	Design and Optimization of Chromophores for Liquid Crystal and Photorefractive Applications. Materials Research Society Symposia Proceedings, 1999, 561, 119.	0.1	2
332	<title>Photorefractive polymers for laser-based ultrasound detection</title>. , 2000, 4104, 110.		2
333	Exploring novel methods of interferometric detection of ultrasmall phase shifts. , 2003, 4962, 110.		2
334	OPTICAL FIELD ENHANCEMENT WITH PLASMON RESONANT BOWTIE NANOANTENNAS. , 2007, , 125-137.		2
335	Photorefractive Polymers. , 1995, , 265-309.		2
336	Identification and demonstration of roGFP2 as an environmental sensor for cryogenic correlative light and electron microscopy. Journal of Structural Biology, 2022, 214, 107881.	2.8	2
337	Ducharmeet al. reply. Physical Review Letters, 1991, 67, 2590-2590.	7.8	1
338	Optical Spectroscopy of Individual Molecules Trapped in Solids. , 1994, , .		1
339	Recent advances in high-gain photorefractive polymers. , 1998, , .		1
340	Superresolution imaging in live bacterial cells by single-molecule active-control microscopy. , 2008, , .		1
341	QnAs with W. E. Moerner. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6357-6357.	7.1	1
342	Super-resolution fluorescence imaging of intracellular mutant huntingtin protein reveals a population of fibrillar aggregates co-existing with compact perinuclear inclusion bodies. Molecular Neurodegeneration, 2013, 8, O18.	10.8	1

#	Article	IF	Citations
343	From â€œThereâ€²s Plenty of Room at the Bottomâ€• to Seeing What is Actually There. ChemPhysChem, 2014, 15, 547-549.	2.1	1
344	Motion of chromosomal loci and the mean-squared displacement of a fractional Brownian motion in the presence of static and dynamic errors. , 2015, , .		1
345	Superâ€Resolution Microscopy and Singleâ€Protein Tracking in Live Bacteria Using a Genetically Encoded, Photostable Fluoromodule. Current Protocols in Cell Biology, 2017, 75, 4.32.1-4.32.22.	2.3	1
346	Precise Measurement of Single-Molecule Rotational Diffusivity in Solution. Biophysical Journal, 2018, 114, 170a.	0.5	1
347	Cryogenic Correlative Singleâ€Particle Photoluminescence Spectroscopy and Electron Tomography for Investigation of Nanomaterials. Angewandte Chemie, 2020, 132, 15772-15778.	2.0	1
348	Photorefractive Polymers. , 2001, , 6961-6968.		1
349	Watching conformational- and photodynamics of single fluorescent proteins in solution. , 0, .		1
350	Bowtie Nanoantennas as Substrates for Electrochemical Surface-Enhanced Raman Scattering (SERS). , 2007, , .		1
351	Ultrasonic Dispersion (AV/V) Determined from Mechanical Resonance Frequency Shifts. , 1974, , .		0
352	Two Transducer Formula for More Precise Determination of Ultrasonic Phase Velocity from Standing Wave Measurements. , 1974, , .		0
353	Ultrasonic Determination of Magnetoelastic and Anisotropy Constants of Single Crystal Ni. , 1974, , .		0
354	Ultrasensitive Laser Spectroscopy in Solids: Single-Molecule Detection. Molecular Crystals and Liquid Crystals Incorporating Nonlinear Optics, 1990, 183, 47-57.	0.3	0
355	Nonlinear Optical Properties of Organic Photorefractive Polymers. Materials Research Society Symposia Proceedings, 1992, 277, 121.	0.1	0
356	Optical Detection of Magnetic Resonance of a Single Molecular Spin. Optics and Photonics News, 1993, 4, 35.	0.5	0
357	Photorefractive Polymers Achieve Net Gain, High Diffraction Efficiency and Speed. Optics and Photonics News, 1993, 4, 42_1.	0.5	0
358	Cascading of second-order processes in quadratic molecular media at the origin of very large cubic effects. Synthetic Metals, 1994, 67, 303-307.	3.9	0
359	‹title›Dynamics and vibrational spectra of individual molecules in polymer glasses‹/title›. , 1995, , .		0
360	Probing nanoenvironments in solids and quantum optics using individual impurity molecules. Progress in Crystal Growth and Characterization of Materials, 1996, 33, 11-18.	4.0	0

#	Article	IF	Citations
361	Understanding trapping in photorefractive polymer composites for optical processing applications. , 0, , .		0
362	Homodyne detection of ultrasonic surface displacements using two-wave mixing in photorefractive polymers. , 0, , .		0
363	Photorefractive and photochromic polymers as adaptive beam combiners for laser-based ultrasound detection. , 2001, , .		0
364	Biomolecular applications of single-molecule measurements: kinetics and dynamics of a single-enzyme reaction. , 2002, , .		0
365	High-performance photorefractive glasses: understanding mechanisms and limitations. , 2002, 4802, 21.		0
366	<title>Organic photorefractive material design strategies</title>. , 2002, , .		0
367	Optically sensing the state of a single molecule. , 2003, , .		0
368	Organic Photorefractives: Mechanisms, Materials, and Applications. ChemInform, 2004, 35, no.	0.0	0
369	Nonlinear Optical Chromophores as Nanoscale Emitters for Single-Molecule Spectroscopy. ChemInform, 2005, 36, no.	0.0	0
370	Single-Molecule Biophysical Imaging, Nanophotonics, and Trapping. , 2007, , .		0
371	Anti-Brownian ELectrokinetic (ABEL) Trapping of Single High Density Lipoprotein (HDL) Particles. , 2009, , .		0
372	Photoactivatable DCDHF fluorophores for single-molecule imaging. Proceedings of SPIE, 2009, , .	0.8	0
373	Three-dimensional super-resolution imaging with a double-helix microscope. , 2009, , .		0
374	Photoactivatable Push-Pull Fluorophores for Single-Molecule Imaging in and out of Cells. , 2009, , .		0
375	Triblock supramolecules: Small 21/2009. Small, 2009, 5, NA-NA.	10.0	0
376	Single-Molecule Approaches for Superresolution Imaging, Trapping, and Nanophotonics. , 2010, , .		0
377	Localizing and Tracking Single Emitters in Three Dimensions Using a Double Helix Point Spread Function. , 2010, , .		0
378	Photoactivatable Azido Push-Pull Fluorophores for Single-Molecule Imaging in and out of Cells. Biophysical Journal, 2010, 98, 203a.	0.5	0

#	Article	IF	Citations
379	Watching Conformational and Photo-Dynamics of Single Fluorescent Proteins in Solution. Biophysical Journal, 2010, 98, 186a.	0.5	0
380	Live cell single-molecule and superresolution imaging of proteins in bacteria. Proceedings of SPIE, 2011, , .	0.8	0
381	Single-Molecule Photocontrol and Nanoscopy. Springer Series on Fluorescence, 2012, , 87-110.	0.8	0
382	Optimal Point Spread Function Engineering for 3D Super-Resolution Imaging. , 2014, , .		0
383	Spectroscopic and transport measurements of single molecules in solution using an electrokinetic trap. Proceedings of SPIE, 2014, , .	0.8	0
384	Single-molecule orientation measurements with a quadrated pupil. Proceedings of SPIE, 2014, , .	0.8	0
385	Single-molecule exploration of photoprotective mechanisms in light-harvesting complexes. , 2015, , .		0
386	Optimal Point Spread Function for 3D High-Precision Imaging. , 2015, , .		0
387	Pigment-Specific Fluorescence Spectroscopy of Single Antenna Complexes in Solution. Biophysical Journal, 2015, 108, 368a.	0.5	0
388	Localization microscopy of single molecules enhanced by 3D imaging and light sheet illumination. Journal Physics D: Applied Physics, 2019, 52, 011001.	2.8	0
389	Optically induced focusing-to-defocusing switching and self-trapping of light in a photorefractive organic glass. , 2003, , .		0
390	Recent Advances in Photorefractive Organic Materials. , 2005, , .		0
391	Nanophotonics and Single Molecules. , 2005, , .		0
392	Determining Single-Molecule ATP Binding Stoichiometry in a Multi-Subunit Enzyme with a Hardware-Based Anti-Brownian Electrokinetic Trap. , 2009, , .		0
393	Three-Dimensional Superresolution Using Single-Molecule Photoswitches and a Double-Helix PSF. , 2009, , .		0
394	Localization Precision of Three-Dimensional Superresolution Fluorescence Imaging Using a Double-Helix Point Spread Function. , 2009, , .		0
395	An FPGA-based Anti-Brownian Electrokinetic trap for studying single molecules in solution. , 2009, , .		0
396	Single-Molecule Biophysical Imaging, Superresolution, and Trapping. , 2009, , .		0

#	Article	IF	Citations
397	Watching Photophysics in Action: Single-Molecule Solution-Phase studies of a Trapped Photosynthetic Antenna Protein. , 2009, , .		0
398	Suppression of Brownian Motion Explores Cooperativity for Single Multi-Subunit Enzymes in Solution. , 2010, , .		0
399	Super-Resolution 3D Co-Localization of Protein Superstructures and the Cellular Surface in Live Caulobacter crescentus. , 2011, , .		0
400	An Adaptive Anti-Brownian Electrokinetic Trap for Prolonged Observation of Single Molecules in Solution. , 2011, , .		0
401	Optical Explorations of Single Biomolecules and Enzymes in Solution with an Anti-Brownian Electrokinetic Trap. , 2011, , .		0
402	Three-Dimensional Super-Resolution Imaging with a Corkscrew Point Spread Function. , 2011, , .		0
403	Studying Subunit Cooperativity by Counting Hydrolyzed ATP on Single Chaperonin Nanomachines in Solution. , 2011, , .		0
404	The Double-Helix Microscope Enables Precise and Accurate Measurement of 3D Single-Molecule Orientation and Localization Beyond the Diffraction Limit. , 2013, , .		0
405	Measuring the 3D Position and Orientation of Single Molecules Simultaneously and Accurately with the Double Helix Microscope. , 2013, , .		0
406	Optical Methods for Measuring Single-Molecule Orientation and Position: Implications for Super-Resolution Microscopy. , 2013, , .		0
407	Single-Molecule Orientation Measurements with a Quadrated Pupil. , 2013, , .		0
408	Persistant nonphotochemical hole-burning of a molecular vibrational mode in alkali halide lattices. , 1982, , .		0
409	Progress in frequency domain optical storage. , 1984, , .		0
410	Shot-noise-limited detection in FM spectroscopy by optical nulling of residual amplitude modulation. , 1985, , .		0
411	Persistent Infrared Spectral Hole-Burning for Impurity Vibrational Modes in Solids. Topics in Current Physics, 1988, , 203-250.	0.5	0
412	Dynamical Hole-Burning Requirements for Frequency Domain Optical Storage. , 1988, , 41-51.		0
413	Understanding Photorefractivity in High-Performance Polymer Composites. , 1999, , .		0
414	Determining the Rotational Mobility of a Single Molecule from a Single Image: A Numerical Study. , 2015, , .		0

#	Article	IF	Citations
415	An Azimuthal Polarizer Assures Localization Accuracy in Single-Molecule Super-Resolution Fluorescence Microscopy. , 2015, , .		0
416	Maximally Informative Point Spread Functions for 3D Super-Resolution Imaging. , 2015, , .		0
417	Enhanced DNA Imaging Using Super-Resolution Microscopy and Simultaneous Single-Molecule Orientation Measurements. , 2016, , .		0
418	Autobiography of W. E. (William Esco) Moerner. Journal of Physical Chemistry B, 2022, 126, 1159-1159.	2.6	0