

Ted A Laurence

List of Publications by Year in descending order

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77
papers

5,392
citations

147801

31
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85541

71
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78
all docs

78
docs citations

78
times ranked

5114
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluorescence-aided molecule sorting: Analysis of structure and interactions by alternating-laser excitation of single molecules. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8936-8941.	7.1	597
2	Single-molecule protein folding: Diffusion fluorescence resonance energy transfer studies of the denaturation of chymotrypsin inhibitor 2. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 5179-5184.	7.1	440
3	Alternating-Laser Excitation of Single Molecules. Accounts of Chemical Research, 2005, 38, 523-533.	15.6	335
4	Time-gated biological imaging by use of colloidal quantum dots. Optics Letters, 2001, 26, 825.	3.3	332
5	Shot-Noise Limited Single-Molecule FRET Histograms: A Comparison between Theory and Experiments. Journal of Physical Chemistry B, 2006, 110, 22103-22124.	2.6	301
6	Polarization Spectroscopy of Single Fluorescent Molecules. Journal of Physical Chemistry B, 1999, 103, 6839-6850.	2.6	251
7	Probing structural heterogeneities and fluctuations of nucleic acids and denatured proteins. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17348-17353.	7.1	219
8	The Power and Prospects of Fluorescence Microscopies and Spectroscopies. Annual Review of Biophysics and Biomolecular Structure, 2003, 32, 161-182.	18.3	198
9	HF-Based Etching Processes for Improving Laser Damage Resistance of Fused Silica Optical Surfaces. Journal of the American Ceramic Society, 2011, 94, 416-428.	3.8	197
10	RATIOMETRIC SINGLE-MOLECULE STUDIES OF FREELY DIFFUSING BIOMOLECULES. Annual Review of Physical Chemistry, 2001, 52, 233-253.	10.8	195
11	Aptamer-Based SERRS Sensor for Thrombin Detection. Nano Letters, 2008, 8, 4386-4390.	9.1	185
12	Generalized Approach to SERS-Active Nanomaterials via Controlled Nanoparticle Linking, Polymer Encapsulation, and Small-Molecule Infusion. Journal of Physical Chemistry C, 2009, 113, 13622-13629.	3.1	160
13	FRET-based dynamic structural biology: Challenges, perspectives and an appeal for open-science practices. ELife, 2021, 10, .	6.0	152
14	Fracture-induced subbandgap absorption as a precursor to optical damage on fused silica surfaces. Optics Letters, 2010, 35, 2702.	3.3	150
15	Retention of Transcription Initiation Factor σ^{70} in Transcription Elongation: Single-Molecule Analysis. Molecular Cell, 2005, 20, 347-356.	9.7	132
16	Single-Step Nanoplasmonic VEGF ₁₆₅ Aptasensor for Early Cancer Diagnosis. ACS Nano, 2012, 6, 7607-7614.	14.6	127
17	Efficient maximum likelihood estimator fitting of histograms. Nature Methods, 2010, 7, 338-339.	19.0	102
18	Metallic-like photoluminescence and absorption in fused silica surface flaws. Applied Physics Letters, 2009, 94, .	3.3	100

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19	Rapid, Solution-Based Characterization of Optimized SERS Nanoparticle Substrates. <i>Journal of the American Chemical Society</i> , 2009, 131, 162-169.	13.7	100
20	Extracting the distribution of laser damage precursors on fused silica surfaces for 351 nm, 3 ns laser pulses at high fluences (20-150 J/cm ²). <i>Optics Express</i> , 2012, 20, 11561.	3.4	85
21	Photon Arrival-Time Interval Distribution (PAID): A Novel Tool for Analyzing Molecular Interactions. <i>Journal of Physical Chemistry B</i> , 2004, 108, 3051-3067.	2.6	65
22	Fast, flexible algorithm for calculating photon correlations. <i>Optics Letters</i> , 2006, 31, 829.	3.3	61
23	Laser damage precursors in fused silica. <i>Proceedings of SPIE</i> , 2009, , .	0.8	57
24	ANALYTICAL CHEMISTRY: How to Detect Weak Pairs. <i>Science</i> , 2003, 299, 667-668.	12.6	54
25	Synthesis and characterization of a nanocrystalline diamond aerogel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 8550-8553.	7.1	52
26	Advances in superresolution optical fluctuation imaging (SOFI). <i>Quarterly Reviews of Biophysics</i> , 2013, 46, 210-221.	5.7	49
27	Motion of a DNA Sliding Clamp Observed by Single Molecule Fluorescence Spectroscopy. <i>Journal of Biological Chemistry</i> , 2008, 283, 22895-22906.	3.4	45
28	Photon-HDF5: An Open File Format for Timestamp-Based Single-Molecule Fluorescence Experiments. <i>Biophysical Journal</i> , 2016, 110, 26-33.	0.5	45
29	Robust SERS Enhancement Factor Statistics Using Rotational Correlation Spectroscopy. <i>Nano Letters</i> , 2012, 12, 2912-2917.	9.1	44
30	Correlation Spectroscopy of Minor Fluorescent Species: Signal Purification and Distribution Analysis. <i>Biophysical Journal</i> , 2007, 92, 2184-2198.	0.5	39
31	Binding of Apolipoprotein E Inhibits the Oligomer Growth of Amyloid- β^2 Peptide in Solution as Determined by Fluorescence Cross-correlation Spectroscopy. <i>Journal of Biological Chemistry</i> , 2013, 288, 11628-11635.	3.4	39
32	Single-molecule dynamics of phytochrome-bound fluorophores probed by fluorescence correlation spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 11136-11141.	7.1	31
33	Characterizing diffusion dynamics of a membrane protein associated with nanolipoproteins using fluorescence correlation spectroscopy. <i>Protein Science</i> , 2011, 20, 437-447.	7.6	27
34	Thermal annealing of laser damage precursors on fused silica surfaces. <i>Optical Engineering</i> , 2012, 51, 121817.	1.0	26
35	Four-Color Alternating-Laser Excitation Single-Molecule Fluorescence Spectroscopy for Next-Generation Biodetection Assays. <i>Clinical Chemistry</i> , 2012, 58, 707-716.	3.2	26
36	Laser-induced damage of intrinsic and extrinsic defects by picosecond pulses on multilayer dielectric coatings for petawatt-class lasers. <i>Optical Engineering</i> , 2016, 56, 011008.	1.0	25

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37	Fluorescence Correlation Spectroscopy at Micromolar Concentrations without Optical Nanoconfinement. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9662-9667.	2.6	22
38	Fabrication Methodology of Enhanced Stability Room Temperature TlBr Gamma Detectors. <i>IEEE Transactions on Nuclear Science</i> , 2013, 60, 1231-1236.	2.0	21
39	Role of defects in laser-induced modifications of silica coatings and fused silica using picosecond pulses at 1053 nm: II Scaling laws and the density of precursors. <i>Optics Express</i> , 2017, 25, 15381.	3.4	21
40	Quasi-continuum photoluminescence: Unusual broad spectral and temporal characteristics found in defective surfaces of silica and other materials. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	20
41	The role of defects in laser-induced modifications of silica coatings and fused silica using picosecond pulses at 1053 nm: I Damage morphology. <i>Optics Express</i> , 2017, 25, 15161.	3.4	20
42	Temporal coherence of individual turbulent patterns in atmospheric seeing. <i>Applied Optics</i> , 2000, 39, 4879.	2.1	18
43	Fluorescence Cross-Correlation Spectroscopy as a Universal Method for Protein Detection with Low False Positives. <i>Analytical Chemistry</i> , 2009, 81, 5614-5622.	6.5	18
44	Quantifying Interactions of a Membrane Protein Embedded in a Lipid Nanodisc using Fluorescence Correlation Spectroscopy. <i>Biophysical Journal</i> , 2014, 106, L05-L08.	0.5	15
45	Counting Constituents in Molecular Complexes by Fluorescence Photon Antibunching. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2007, 13, 996-1005.	2.9	14
46	Label-Free Multiphoton Imaging of Microbes in Root, Mineral, and Soil Matrices with Time-Gated Coherent Raman and Fluorescence Lifetime Imaging. <i>Environmental Science & Technology</i> , 2022, 56, 1994-2008.	10.0	14
47	Photo-oxidation of Polymers Synthesized by Plasma and Initiated CVD. <i>Chemical Vapor Deposition</i> , 2015, 21, 267-274.	1.3	13
48	Photo-oxidation of polymer-like amorphous hydrogenated carbon under visible light illumination. <i>Polymer Degradation and Stability</i> , 2015, 122, 133-138.	5.8	11
49	Engineered Nanostructures of Haptens Lead to Unexpected Formation of Membrane Nanotubes Connecting Rat Basophilic Leukemia Cells. <i>ACS Nano</i> , 2015, 9, 6738-6746.	14.6	11
50	Expression and Association of the <i>Yersinia pestis</i> Translocon Proteins, YopB and YopD, Are Facilitated by Nanolipoprotein Particles. <i>PLoS ONE</i> , 2016, 11, e0150166.	2.5	11
51	Photon-HDF5: open data format and computational tools for timestamp-based single-molecule experiments. <i>Proceedings of SPIE</i> , 2016, 9714, .	0.8	10
52	Distribution analysis of the photon correlation spectroscopy of discrete numbers of dye molecules conjugated to DNA. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2005, 11, 873-880.	2.9	9
53	Gigashot optical degradation in silica optics at 351 nm. <i>Optics Express</i> , 2015, 23, 4074.	3.4	9
54	Mirrors for petawatt lasers: Design principles, limitations, and solutions. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	9

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55	Periodic Arrangement of Lipopolysaccharides Nanostructures Accelerates and Enhances the Maturation Processes of Dendritic Cells. ACS Applied Nano Materials, 2018, 1, 839-850.	5.0	8
56	Determination of the Maturation Status of Dendritic Cells by Applying Pattern Recognition to High-Resolution Images. Journal of Physical Chemistry B, 2020, 124, 8540-8548.	2.6	8
57	Ultrafast photoluminescence as a diagnostic for laser damage initiation. Proceedings of SPIE, 2009, , .	0.8	6
58	Spectroscopic investigation of (NH ₄) ₂ S treated GaSeTe for radiation detector applications. Materials Letters, 2010, 64, 393-395.	2.6	6
59	Stoichiometry of Reconstituted High-Density Lipoproteins in the Hydrated State Determined by Photon Antibunching. Biophysical Journal, 2011, 101, 970-975.	0.5	6
60	Filament damage formation in fused silica glass as a result of 1â€“50 ps near-infrared laser pulses. Applied Optics, 2017, 56, 3666.	2.1	6
61	Measuring Activation and Luminescence Time Scales of Upconverting NaYF ₄ :Yb,Er Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 23780-23789.	3.1	6
62	Characterization of laser-induced damage by picosecond pulses on multi-layer dielectric coatings for petawatt-class lasers. Proceedings of SPIE, 2015, , .	0.8	5
63	Initiated chemical vapor deposition polymers for high peak-power laser targets. Thin Solid Films, 2017, 635, 37-41.	1.8	5
64	Applying Pattern Recognition to High-Resolution Images to Determine Cellular Signaling Status. IEEE Transactions on Nanobioscience, 2017, 16, 438-446.	3.3	4
65	How Proteins Slide on DNA. Biological and Medical Physics Series, 2010, , 39-68.	0.4	4
66	Ultra-fast photoluminescence in fused silica surface flaws susceptible to laser damage. Materials Research Society Symposia Proceedings, 2011, 1365, 1.	0.1	3
67	Laser-induced modifications of HfO ₂ coatings using picosecond pulses at 1053â€“nm: Using polarization to isolate surface defects. Journal of Applied Physics, 2018, 124, .	2.5	3
68	Energy transfer networks: Quasicontinuum photoluminescence linked to high densities of defects. Physical Review Materials, 2017, 1, .	2.4	3
69	Blue shift of GaAs micropillars strained with silicon nitride. Applied Physics Letters, 2013, 103, 212104.	3.3	2
70	The role of electronic defects and brittle microstructure in laser-driven material failure. Journal Physics D: Applied Physics, 2014, 47, 345304.	2.8	2
71	Correlation of UV damage threshold with post-annealing in CVD-grown SiO ₂ overlayers on etched fused silica substrates. Proceedings of SPIE, 2012, , .	0.8	1
72	Biophysical Characterization of Membrane Proteins Embedded in Nanodiscs Using Fluorescence Correlation Spectroscopy. Membranes, 2022, 12, 392.	3.0	1

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73	Application of SERS nanoparticles for intracellular pH measurements. , 2004, 5512, 80.		0
74	Alternating-Laser Excitation of Single Molecules. ChemInform, 2005, 36, no.	0.0	0
75	Protein Dynamics and Interactions. , 0, , 191-236.		0
76	Novel etching fluids for potassium dihydrogen phosphate. , 2018, , .		0
77	Fluorescence correlation spectroscopy measurements of proteins expressed inside microcapsules. Biophysical Journal, 2022, 121, 413a-414a.	0.5	0