Jerome Wenger

List of Publications by Year
in descending order

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127 papers	7,588 citations	50244 46 h-index	53190 85 g-index
131 all docs	131 docs citations	131 times ranked	6768 citing authors

#	Article	IF	Citations
1	Quantum key distribution using gaussian-modulated coherent states. Nature, 2003, 421, 238-241.	13.7	1,120
2	Non-Gaussian Statistics from Individual Pulses of Squeezed Light. Physical Review Letters, 2004, 92, 153601.	2.9	353
3	A plasmonic â€˜antenna-in-boxâ€™ platform for enhanced single-molecule analysis at micromolar concentrations. Nature Nanotechnology, 2013, 8, 512-516.	15.6	297
4	Bright Unidirectional Fluorescence Emission of Molecules in a Nanoaperture with Plasmonic Corrugations. Nano Letters, 2011, 11, 637-644.	4.5	258
5	Proposal for a Loophole-Free Bell Test Using Homodyne Detection. Physical Review Letters, 2004, 93, 130409.	2.9	250
6	Direct imaging of photonic nanojets. Optics Express, 2008, 16, 6930.	1.7	240
7	Enhancement of Single-Molecule Fluorescence Detection in Subwavelength Apertures. Physical Review Letters, 2005, 95, 117401.	2.9	211
8	Fluorescence correlation spectroscopy. BioEssays, 2012, 34, 361-368.	1.2	207
9	All-Dielectric Silicon Nanogap Antennas To Enhance the Fluorescence of Single Molecules. Nano Letters, 2016, 16, 5143-5151.	4.5	197
10	Plasmonic Antennas for Directional Sorting of Fluorescence Emission. Nano Letters, 2011, 11, 2400-2406.	4.5	177
11	Virtual entanglement and reconciliation protocols for quantum cryptography with continuous variables. Quantum Information and Computation, 2003, 3, 535-552.	0.1	165
12	Diffusion Analysis within Single Nanometric Apertures Reveals the Ultrafine Cell Membrane Organization. Biophysical Journal, 2007, 92, 913-919.	0.2	154
13	Crucial Role of the Adhesion Layer on the Plasmonic Fluorescence Enhancement. ACS Nano, 2009, 3, 2043-2048.	7.3	152
14	Maximal violation of Bell inequalities using continuous-variable measurements. Physical Review A, 2003, 67, .	1.0	132
15	Three-dimensional subwavelength confinement of light with dielectric microspheres. Optics Express, 2009, 17, 2089.	1.7	124
16	Emission and excitation contributions to enhanced single molecule fluorescence by gold nanometric apertures. Optics Express, 2008, 16, 3008.	1.7	122
17	High-resolution multimodal flexible coherent Raman endoscope. Light: Science and Applications, 2018, 7, 10.	7.7	116
18	In-Plane Plasmonic Antenna Arrays with Surface Nanogaps for Giant Fluorescence Enhancement. Nano Letters, 2017, 17, 1703-1710.	4.5	114

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19	Self-Assembled Nanoparticle Dimer Antennas for Plasmonic-Enhanced Single-Molecule Fluorescence Detection at Micromolar Concentrations. ACS Photonics, 2015, 2, 1099-1107.	3.2	105
20	Strong electromagnetic confinement near dielectric microspheres to enhance single-molecule fluorescence. Optics Express, 2008, 16, 15297.	1.7	97
21	Nanoaperture-enhanced fluorescence: Towards higher detection rates with plasmonic metals. Physical Review B, 2008, 77, .	1.1	88
22	Nanophotonic Enhancement of the FÃ¶rster Resonance Energy-Transfer Rate with Single Nanoapertures. Nano Letters, 2014, 14, 4707-4714.	4.5	86
23	Matching Nanoantenna Field Confinement to FRET Distances Enhances FÃ¶rster Energy Transfer Rates. Nano Letters, 2015, 15, 6193-6201.	4.5	85
24	Three-dimensional nanometre localization of nanoparticles to enhance super-resolution microscopy. Nature Communications, 2015, 6, 7764.	5.8	73
25	Plasmonic Nanoantennas Enable Forbidden FÃ¶rster Dipoleâ€“Dipole Energy Transfer and Enhance the FRET Efficiency. Nano Letters, 2016, 16, 6222-6230.	4.5	73
26	Excitation Enhancement of a Quantum Dot Coupled to a Plasmonic Antenna. Advanced Materials, 2012, 24, OP314-20.	11.1	72
27	Coupling Emitters and Silver Nanowires to Achieve Long-Range Plasmon-Mediated Fluorescence Energy Transfer. ACS Nano, 2016, 10, 3968-3976.	7.3	69
28	Single molecule fluorescence in rectangular nano-apertures. Optics Express, 2005, 13, 7035.	1.7	68
29	Plasmonic Band Structure Controls Single-Molecule Fluorescence. ACS Nano, 2013, 7, 8840-8848.	7.3	68
30	Efficient excitation and collection of single-molecule fluorescence close to a dielectric microsphere. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 1473.	0.9	65
31	Optimization of resonant effects in nanostructures via Weierstrass factorization. Physical Review A, 2013, 88, .	1.0	64
32	Temperature Measurement in Plasmonic Nanoapertures Used for Optical Trapping. ACS Photonics, 2019, 6, 1763-1773.	3.2	64
33	Optimizing Nanoparticle Designs for Ideal Absorption of Light. ACS Photonics, 2015, 2, 263-270.	3.2	63
34	Roadmap on biosensing and photonics with advanced nano-optical methods. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10	1.0	61
35	Competition between FÃ¶rster Resonance Energy Transfer and Donor Photodynamics in Plasmonic Dimer Nanoantennas. ACS Photonics, 2016, 3, 895-903.	3.2	61
36	Kagome hollow-core photonic crystal fiber probe for Raman spectroscopy. Optics Letters, 2012, 37, 4371.	1.7	58

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37	Pulsed homodyne measurements of femtosecond squeezed pulses generated by single-pass parametric deamplification. Optics Letters, 2004, 29, 1267.	1.7	56
38	Extending Single-Molecule FÃ¶rster Resonance Energy Transfer (FRET) Range beyond 10 Nanometers in Zero-Mode Waveguides. ACS Nano, 2019, 13, 8469-8480.	7.3	54
39	Plasmonic antennas and zeroâ€mode waveguides to enhance single molecule fluorescence detection and fluorescence correlation spectroscopy toward physiological concentrations. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2014, 6, 268-282.	3.3	53
40	Nanoscale volume confinement and fluorescence enhancement with double nanohole aperture. Scientific Reports, 2015, 5, 15852.	1.6	50
41	Field enhancement in single subwavelength apertures. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 2342.	0.8	49
42	Time-resolved homodyne characterization of individual quadrature-entangled pulses. European Physical Journal D, 2005, 32, 391-396.	0.6	48
43	Optical-fiber-microsphere for remote fluorescence correlation spectroscopy. Optics Express, 2009, 17, 19085.	1.7	48
44	Picosecond Lifetimes with High Quantum Yields from Single-Photon-Emitting Colloidal Nanostructures at Room Temperature. ACS Nano, 2016, 10, 4806-4815.	7.3	48
45	Quantifying the Role of the Surfactant and the Thermophoretic Force in Plasmonic Nano-optical Trapping. Nano Letters, 2020, 20, 8811-8817.	4.5	48
46	Dual-color fluorescence cross-correlation spectroscopy in a single nanoaperture : towards rapid multicomponent screening at high concentrations. Optics Express, 2006, 14, 12206.	1.7	47
47	Disposable Microscope Objective Lenses for Fluorescence Correlation Spectroscopy Using Latex Microspheres. Analytical Chemistry, 2008, 80, 6800-6804.	3.2	44
48	Nanoaperture-Enhanced Signal-to-Noise Ratio in Fluorescence Correlation Spectroscopy. Analytical Chemistry, 2009, 81, 834-839.	3.2	44
49	Photonic Methods to Enhance Fluorescence Correlation Spectroscopy and Single Molecule Fluorescence Detection. International Journal of Molecular Sciences, 2010, 11, 206-221.	1.8	43
50	Planar Optical Nanoantennas Resolve Cholesterol-Dependent Nanoscale Heterogeneities in the Plasma Membrane of Living Cells. Nano Letters, 2017, 17, 6295-6302.	4.5	43
51	FRET Enhancement in Aluminum Zeroâ€Mode Waveguides. ChemPhysChem, 2015, 16, 782-788.	1.0	42
52	Optical Antenna-Based Fluorescence Correlation Spectroscopy to Probe the Nanoscale Dynamics of Biological Membranes. Journal of Physical Chemistry Letters, 2018, 9, 110-119.	2.1	41
53	FCS Diffusion Laws in Two-Phase Lipid Membranes: Determination ofÂDomain Mean Size by Experiments and Monte Carlo Simulations. Biophysical Journal, 2011, 100, 1242-1251.	0.2	40
54	Enhanced second-harmonic generation from individual metallic nanoapertures. Optics Letters, 2010, 35, 4063.	1.7	39

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55	Transient Nanoscopic Phase Separation in Biological Lipid Membranes Resolved by Planar Plasmonic Antennas. ACS Nano, 2017, 11, 7241-7250.	7.3	39
56	Gold nanoparticles for enhanced single molecule fluorescence analysis at micromolar concentration. Optics Express, 2013, 21, 27338.	1.7	38
57	Deep Ultraviolet Plasmonic Enhancement of Single Protein Autofluorescence in Zero-Mode Waveguides. Nano Letters, 2019, 19, 7434-7442.	4.5	38
58	Single-Fluorophore Diffusion in a Lipid Membrane over a Subwavelength Aperture. Journal of Biological Physics, 2006, 32, SN1-SN4.	0.7	37
59	Surface Enhanced Raman Scattering on a Single Nanometric Aperture. Journal of Physical Chemistry C, 2010, 114, 16250-16256.	1.5	37
60	Singular analysis of Fano resonances in plasmonic nanostructures. Physical Review A, 2013, 88, .	1.0	36
61	Single Photon Source from a Nanoantenna-Trapped Single Quantum Dot. Nano Letters, 2021, 21, 7030-7036.	4.5	35
62	Colloidal Quantum Dots as Probes of Excitation Field Enhancement in Photonic Antennas. ACS Nano, 2010, 4, 4571-4578.	7.3	34
63	Multi-focus parallel detection of fluorescent molecules at picomolar concentration with photonic nanojets arrays. Applied Physics Letters, 2014, 105, .	1.5	33
64	Pulsed squeezed vacuum measurements without homodyning. Physical Review A, 2004, 70, .	1.0	32
65	Field enhancement in a circular aperture surrounded by a single channel groove. Optics Express, 2008, 16, 2276.	1.7	28
66	Large molecular fluorescence enhancement by a nanoaperture with plasmonic corrugations. Optics Express, 2011, 19, 13056.	1.7	27
67	Photonic Engineering of Hybrid Metalâ€“Organic Chromophores. Angewandte Chemie - International Edition, 2012, 51, 11083-11087.	7.2	27
68	Hollow-core photonic crystal fiber probe for remote fluorescence sensing with single molecule sensitivity. Optics Express, 2012, 20, 28379.	1.7	25
69	Raman scattering and fluorescence emission in a single nanoaperture: Optimizing the local intensity enhancement. Optics Communications, 2006, 267, 224-228.	1.0	24
70	Hyperuniform Monocrystalline Structures by Spinodal Solid-State Dewetting. Physical Review Letters, 2020, 125, 126101.	2.9	24
71	Radiative and Nonradiative Photokinetics Alteration Inside a Single Metallic Nanometric Aperture. Journal of Physical Chemistry C, 2007, 111, 11469-11474.	1.5	23
72	Direct Imaging of the Energy-Transfer Enhancement between Two Dipoles in a Photonic Cavity. Physical Review X, 2019, 9, .	2.8	22

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73	Adhesion layer influence on controlling the local temperature in plasmonic gold nanoholes. Nanoscale, 2020, 12, 2524-2531.	2.8	22
74	Compressed perovskite aqueous mixtures near their phase transitions show very high permittivities: New prospects for highâ€field MRI dielectric shimming. Magnetic Resonance in Medicine, 2018, 79, 1753-1765.	1.9	21
75	CMOS-compatible all-dielectric metalens for improving pixel photodetector arrays. APL Photonics, 2020, 5, .	3.0	21
76	Single-scattering theory of light diffraction by a circular subwavelength aperture in a finitely conducting screen. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 339.	0.8	19
77	Insights into animal septins using recombinant human septin octamers with distinct SEPT9 isoforms. Journal of Cell Science, 2021, 134, .	1.2	19
78	Single-molecule Detection of Ultrafast Biomolecular Dynamics with Nanophotonics. Journal of the American Chemical Society, 2022, 144, 52-56.	6.6	18
79	Fluorescence fluctuations analysis in nanoapertures: physical concepts and biological applications. Histochemistry and Cell Biology, 2008, 130, 795-805.	0.8	17
80	Two-photon fluorescence correlation spectroscopy with high count rates and low background using dielectric microspheres. Biomedical Optics Express, 2010, 1, 1075.	1.5	16
81	Preventing Aluminum Photocorrosion for Ultraviolet Plasmonics. Journal of Physical Chemistry Letters, 2019, 10, 5700-5707.	2.1	16
82	Fluorescence Enhancement Factors on Optical Antennas: Enlarging the Experimental Values without Changing the Antenna Design. International Journal of Optics, 2012, 2012, 1-7.	0.6	15
83	Ultraviolet Photostability Improvement for Autofluorescence Correlation Spectroscopy on Label-Free Proteins. Journal of Physical Chemistry Letters, 2020, 11, 2027-2035.	2.1	15
84	Surface passivation of zero-mode waveguide nanostructures: benchmarking protocols and fluorescent labels. Scientific Reports, 2020, 10, 5235.	1.6	15
85	Conformational modulation and hydrodynamic radii of <scp>CP</scp>12 protein and its complexes probed by fluorescence correlation spectroscopy. FEBS Journal, 2014, 281, 3206-3217.	2.2	14
86	Ultraviolet optical horn antennas for label-free detection of single proteins. Nature Communications, 2022, 13, 1842.	5.8	14
87	FRET analysis of CP12 structural interplay by GAPDH and PRK. Biochemical and Biophysical Research Communications, 2015, 458, 488-493.	1.0	13
88	Single-step homogeneous immunoassay for detecting prostate-specific antigen using dual-color light scattering of metal nanoparticles. Analyst, The, 2017, 142, 3484-3491.	1.7	13
89	Imaging the Gouy phase shift in photonic jets with a wavefront sensor. Optics Letters, 2012, 37, 3531.	1.7	12
90	Single-Step DNA Detection Assay Monitoring Dual-Color Light Scattering from Individual Metal Nanoparticle Aggregates. ACS Sensors, 2017, 2, 251-256.	4.0	12

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91	Zero-mode waveguides can be made better: fluorescence enhancement with rectangular aluminum nanoapertures from the visible to the deep ultraviolet. Nanoscale Advances, 2020, 2, 4153-4160.	2.2	12
92	Calcium activates purified human TRPA1 with and without its N-terminal ankyrin repeat domain in the absence of calmodulin. Cell Calcium, 2020, 90, 102228.	1.1	12
93	Preventing Corrosion of Aluminum Metal with Nanometer-Thick Films of Al₂O₃ Capped with TiO₂ for Ultraviolet Plasmonics. ACS Applied Nano Materials, 2021, 4, 7199-7205.	2.4	12
94	Fabrication of spectrally sharp Si-based dielectric resonators: combining etaloning with Mie resonances. Optics Express, 2020, 28, 37734.	1.7	12
95	Nanoscale control of single molecule FÃ¶rster resonance energy transfer by a scanning photonic nanoantenna. Nanophotonics, 2020, 9, 4021-4031.	2.9	11
96	Fast interaction dynamics of G-quadruplex and RGG-rich peptides unveiled in zero-mode waveguides. Nucleic Acids Research, 2021, 49, 12348-12357.	6.5	11
97	Flexible photonic devices based on dielectric antennas. JPhys Photonics, 2020, 2, 015002.	2.2	10
98	Purcell radiative rate enhancement of label-free proteins with ultraviolet aluminum plasmonics. Journal Physics D: Applied Physics, 2021, 54, 425101.	1.3	9
99	Enhanced fluorescence from metal nanoapertures: physical characterizations and biophotonic applications. Proceedings of SPIE, 2010, , .	0.8	8
100	High-efficiency single molecule fluorescence detection and correlation spectroscopy with dielectric microspheres. , 2010, , .		8
101	Structural diffusion properties of two atypical Dps from the cyanobacterium Nostoc punctiforme disclose interactions with ferredoxins and DNA. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 148063.	0.5	8
102	Long-Range Single-Molecule FÃ¶rster Resonance Energy Transfer between Alexa Dyes in Zero-Mode Waveguides. ACS Omega, 2020, 5, 6947-6955.	1.6	8
103	Complete Electromagnetic Dyadic Green Function Characterization in a Complex Environmentâ€"Resonant Dipole-Dipole Interaction and Cooperative Effects. Physical Review X, 2021, 11, .	2.8	8
104	Transverse and longitudinal confinement of photonic nanojets by compound dielectric microspheres. Proceedings of SPIE, 2009, , .	0.8	7
105	Singular analysis to homogenize planar metamaterials as nonlocal effective media. Physical Review B, 2014, 89, .	1.1	7
106	Photonic nanojet focusing for hollow-core photonic crystal fiber probes. Applied Optics, 2012, 51, 8637.	0.9	6
107	Plasmonic nano-optical trap stiffness measurements and design optimization. Nanoscale, 2021, 13, 4188-4194.	2.8	6
108	Biophotonics applications of nanometric apertures. International Journal of Materials and Product Technology, 2009, 34, 488.	0.1	5

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109	Fluorescence Brightness, Photostability, and Energy Transfer Enhancement of Immobilized Single Molecules in Zero-Mode Waveguide Nanoapertures. ACS Photonics, 2022, 9, 2109-2118.	3.2	5
110	Saturated excitation of fluorescence to quantify excitation enhancement in aperture antennas. Optics Express, 2012, 20, 18085.	1.7	4
111	Strong three-dimensional field localization and enhancement on deep sinusoidal gratings with two-dimensional periodicity. Optics Letters, 2013, 38, 4876.	1.7	4
112	Laser-induced fluorescence quenching of red fluorescent dyes with green excitation: Avoiding artifacts in PIE-FRET and FCCS analysis. Chemical Physics Letters, 2018, 706, 669-674.	1.2	4
113	Differential conformational modulations of MreB folding upon interactions with GroEL/ES and TRiC chaperonin components. Scientific Reports, 2016, 6, 28386.	1.6	3
114	Fluorescence Correlation Spectroscopy. Methods in Molecular Biology, 2011, 783, 181-195.	0.4	2
115	Deciphering fluorescence signals by quantifying separately the excitation intensity from the number of emitters. Optics Letters, 2011, 36, 3317.	1.7	1
116	Directional control of molecular fluorescence with bull's eye apertures. , 2011, , .		0
117	Plasmonic nanoantennas for enhanced single molecule analysis at micromolar conentrations. , 2013, , .		0
118	Single gold nanoparticles to enhance the detection of single fluorescent molecules at micromolar concentration using fluorescence correlation spectroscopy. Proceedings of SPIE, 2014, , .	0.8	0
119	Nonlinear endoscopy with KagomÃ© lattice hollow-core fibers (Conference Presentation). , 2016, , .		0
120	Plasmonic Optical Trapping Combined with Time-Resolved Fluorescence Microscopy. , 2019, , .		0
121	Antenna Impedance for FRET: A Theoretical and Experimental Framework for Studying Dipole-Dipole Interactions with Microwave Antennas. , 2019, , .		0
122	Optical Antenna Based Fluorescence Correlation Spectroscopy of Biomembranes. , 2019, , .		0
123	Near Field Dipole-Dipole Coupling Near Conductive Plate In The Microwave Range: An RF Analogue To FÃ¶rster Resonance Energy Transfer In Optics. , 2021, , .		0
124	Enhanced Raman Scattering in a 10 Attoliter Nanohole. , 2006, , .		0
125	Experimental Non-Gaussian Manipulation of Continuous Variables. , 2007, , 389-408.		0
126	Hyperbolic metamaterials based on metal-dielectric thin layers. , 2018, , .		0

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127	Fluorescence Spectroscopy Enhancement on Photonic Nanoantennas. , 2019, , 139-158.		0