Steve Blair

List of Publications by Year in descending order

74 papers	1,992 citations	236833 25 h-index	265120 42 g-index
76 all docs	76 docs citations	76 times ranked	2442 citing authors

#	Article	IF	Citations
1	(3+1)-dimensional optical soliton dragging logic. Physical Review A, 1995, 52, 3254-3278.	1.0	153
2	Crucial Role of the Adhesion Layer on the Plasmonic Fluorescence Enhancement. ACS Nano, 2009, 3, 2043-2048.	7.3	152
3	Fluorescence enhancement from an array of subwavelength metal apertures. Optics Letters, 2003, 28, 507.	1.7	128
4	Nanoaperture-enhanced fluorescence: Towards higher detection rates with plasmonic metals. Physical Review B, 2008, 77, .	1.1	88
5	Nonlinearity enhancement in finite coupled-resonator slow-light waveguides. Optics Express, 2004, 12, 3353.	1.7	87
6	Localization of Near-Field Resonances in Bowtie Antennae: Influence of Adhesion Layers. Plasmonics, 2009, 4, 37-50.	1.8	76
7	Incident wavelength and polarization dependence of spectral shifts in Î²-Ga2O3 UV photoluminescence. Scientific Reports, 2018, 8, 18075.	1.6	62
8	Direct DNA Methylation Profiling Using Methyl Binding Domain Proteins. Analytical Chemistry, 2010, 82, 5012-5019.	3.2	58
9	Thin-film optical notch filter spectacle coatings for the treatment of migraine and photophobia. Journal of Clinical Neuroscience, 2016, 28, 71-76.	0.8	45
10	Nanoaperture-Enhanced Signal-to-Noise Ratio in Fluorescence Correlation Spectroscopy. Analytical Chemistry, 2009, 81, 834-839.	3.2	44
11	Multisite microLED optrode array for neural interfacing. Neurophotonics, 2019, 6, 1.	1.7	43
12	UV Fluorescence Lifetime Modification by Aluminum Nanoapertures. ACS Photonics, 2014, 1, 1270-1277.	3.2	42
13	Bloch Surface Wave-Coupled Emission at Ultraviolet Wavelengths. Journal of Physical Chemistry C, 2016, 120, 28727-28734.	1.5	41
14	Optical antenna design for fluorescence enhancement in the ultraviolet. Optics Express, 2012, 20, 29909.	1.7	40
15	Asymmetric spatial soliton dragging. Optics Letters, 1994, 19, 1943.	1.7	39
16	Beyond the absorption-limited nonlinear phase shift with microring resonators. Optics Letters, 2002, 27, 357.	1.7	37
17	Polarization Anisotropy of Multiple Localized Plasmon Resonance Modes in Noble Metal Nanocrescents. Journal of Physical Chemistry C, 2014, 118, 1167-1173.	1.5	37
18	Magnesium as a Novel UV Plasmonic Material for Fluorescence Decay Rate Engineering in Free Solution. Journal of Physical Chemistry C, 2017, 121, 11650-11657.	1.5	37

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19	Third-harmonic generation from arrays of sub-wavelength metal apertures. Optics Express, 2009, 17, 23582.	1.7	36
20	Nanoaperture Fluorescence Enhancement in the Ultraviolet. Plasmonics, 2010, 5, 169-174.	1.8	35
21	Plasmonic Interaction Between Silver Nano-Cubes and a Silver Ground Plane Studied by Surface-Enhanced Raman Scattering. Plasmonics, 2011, 6, 515-519.	1.8	35
22	Multi-dimensional pulse propagation in non-resonant Ï‡(2) materials. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 236, 520-524.	0.9	33
23	Passivation of aluminum with alkyl phosphonic acids for biochip applications. Applied Surface Science, 2010, 256, 7146-7150.	3.1	32
24	Fluorescence transmission through 1-D and 2-D periodic metal films. Optics Express, 2004, 12, 3686.	1.7	30
25	The anisotropic quasi-static permittivity of single-crystal Î² -Ga2O3 measured by terahertz spectroscopy. Applied Physics Letters, 2020, 117, .	1.5	27
26	Introduction. Optics Express, 2004, 12, 3618.	1.7	25
27	Plasmonic Coupling Effect in Ag Nanocapâ€“Nanohole Pairs for Surface-Enhanced Raman Scattering. Plasmonics, 2013, 8, 225-231.	1.8	25
28	UV fluorescence enhancement by Al and Mg nanoapertures. Journal Physics D: Applied Physics, 2015, 48, 184007.	1.3	25
29	Manifestation of Kinetic Inductance in Terahertz Plasmon Resonances in Thin-Film Cd₃As₂. ACS Nano, 2019, 13, 4091-4100.	7.3	24
30	Mid-Infrared Localized Plasmons through Structural Control of Gold and Silver Nanocrescents. Journal of Physical Chemistry C, 2015, 119, 11826-11832.	1.5	23
31	Low-loss magnesium films for plasmonics. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 181, 77-85.	1.7	22
32	Modeling Fluorescence Enhancement from Metallic Nanocavities. Plasmonics, 2007, 2, 129-141.	1.8	21
33	Real-time DNA microarrays: reality check. Biochemical Society Transactions, 2009, 37, 471-475.	1.6	21
34	Deep-tissue light delivery via optrode arrays. Journal of Biomedical Optics, 2014, 19, 015006.	1.4	21
35	Scaling the Response of Nanocrescent Antennas into the Ultraviolet. ACS Photonics, 2014, 1, 496-506.	3.2	21
36	Large Fluorescence Enhancements of Fluorophore Ensembles with Multilayer Plasmonic Substrates: Comparison of Theory and Experimental Results. Journal of Physical Chemistry C, 2012, 116, 21563-21571.	1.5	20

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37	THz characterization and demonstration of visible-transparent/terahertz-functional electromagnetic structures in ultra-conductive La-doped BaSnO3 Films. Scientific Reports, 2018, 8, 3577.	1.6	20
38	Directing polyallylamine adsorption on microlens array patterned silicon for microarray fabrication. Lab on A Chip, 2009, 9, 1789.	3.1	19
39	Crossing-Aware Channel Routing for Integrated Optics. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 814-825.	1.9	18
40	Mg thin films with Al seed layers for UV plasmonics. Journal Physics D: Applied Physics, 2015, 48, 184009.	1.3	18
41	Nonlinear sensitivity enhancement with one-dimensional photonic bandgap microcavity arrays. Optics Letters, 2002, 27, 613.	1.7	17
42	Aluminum Nanocrescent Plasmonic Antennas Fabricated by Copper Mask Nanosphere Template Lithography. Journal of Physical Chemistry C, 2016, 120, 20597-20603.	1.5	17
43	Quantum size effect on dielectric function of ultrathin metal film: a first-principles study of Al(1â€‰1â€‰1). Journal of Physics Condensed Matter, 2014, 26, 505302.	0.7	16
44	Localized multi-dimensional optical pulses in non-resonant quadratic materials. Mathematics and Computers in Simulation, 2001, 56, 511-519.	2.4	13
45	Nanofocusing of UV light in aluminum V-grooves. Journal Physics D: Applied Physics, 2015, 48, 184008.	1.3	12
46	Influence of aluminum content on plasmonic behavior of Mg-Al alloy thin films. Optical Materials Express, 2016, 6, 3180.	1.6	12
47	Effect of Ga Implantation and Hole Geometry on Light Transmission through Nanohole Arrays in Al and Mg. Journal of Physical Chemistry C, 2018, 122, 10535-10544.	1.5	12
48	Exact field solution to guided wave propagation in lossy thin films. Optics Express, 2011, 19, 20159.	1.7	11
49	Convective flow effects on DNA biosensors. Biosensors and Bioelectronics, 2007, 22, 2192-2198.	5.3	10
50	Photoactivated capture molecule immobilization in plasmonic nanoapertures in the ultraviolet. Lab on A Chip, 2011, 11, 841.	3.1	10
51	Engineering the nonlinear phase shift. Optics Letters, 2003, 28, 1945.	1.7	9
52	Polarization Multiplexed Optical Bullseye Antennas. Plasmonics, 2012, 7, 39-46.	1.8	9
53	Enhanced fluorescence from metal nanoapertures: physical characterizations and biophotonic applications. Proceedings of SPIE, 2010, , .	0.8	8
54	Utah optrode array customization using stereotactic brain atlases and 3-D CAD modeling for optogenetic neocortical interrogation in small rodents and nonhuman primates. Neurophotonics, 2017, 4, 041502.	1.7	8

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55	Precise pixel patterning of small molecule organic light-emitting devices by spin casting. Organic Electronics, 2011, 12, 2095-2102.	1.4	7
56	Quantifying Exciton Heterogeneities in Mixed-Phase Organometal Halide Multiple Quantum Wells via Stark Spectroscopy Studies. ACS Applied Materials & Interfaces, 2020, 12, 52538-52548.	4.0	7
57	Aluminum-Based Deep-Ultraviolet Surface Plasmon Resonance Sensor. Plasmonics, 2020, 15, 1891-1901.	1.8	7
58	Competitive displacement: A sensitive and selective method for the detection of unlabeled molecules. Optics Express, 2007, 15, 4390.	1.7	5
59	One-Dimensional Photonic Crystal Rib Waveguides. Journal of Lightwave Technology, 2007, 25, 2435-2439.	2.7	5
60	Channel routing for integrated optics. , 2013, , .		5
61	Variational Approach to Orthogonally-polarized Optical Soliton Interaction with Cubic and Quintic Nonlinearities. Physica Scripta, 1999, 59, 365-373.	1.2	4
62	Maskless wafer-level microfabrication of optical penetrating neural arrays out of soda-lime glass: Utah Optrode Array. Biomedical Microdevices, 2016, 18, 115.	1.4	4
63	Sensitivity enhancement of silver-based SPR sensors using ultrathin gold film and graphene overlay. , 2020, , .		4
64	A methodology for physical design automation for integrated optics. , 2012, , .		3
65	A Methodology for Thermal Characterization Abstraction of Integrated Opto-Electronic Layouts. , 2016, , .		3
66	Gray Level Image Encoding in Plasmonic Metasurfaces. Plasmonics, 2020, 15, 1305-1311.	1.8	3
67	The paradox of multiplex DNA melting on a surface. Analytical Biochemistry, 2011, 409, 150-152.	1.1	2
68	Chiroptical Response of Aluminum Nanocrescents at Ultraviolet Wavelengths. Nano Letters, 2020, 20, 3656-3662.	4.5	2
69	Maximizing transmittance in two-photon 3D printed materials for micro-optics in the visible. Optical Materials Express, 2022, 12, 895.	1.6	2
70	Substrate material influence on the deep-ultraviolet surface plasmon resonance sensors using aluminum films. , 2019, , .		1
71	UV fluorescence modification by aluminum bowtie nanoantennas. , 2017, , .		1
72	Scaling the response of nanocrescent antennas into the ultraviolet. , 2014, , .		0

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73	UV fluorescence lifetime modification by aluminum and magnesium nanoapertures. Proceedings of SPIE, 2016, , .	0.8	0
74	Modification of UV surface plasmon resonances in aluminum hole-arrays with graphene. , 2017, , .		0