

Yeshaiahu Fainman

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

68

papers

1,996

citations

20

h-index

44

g-index

93

ext. papers

2,629

ext. citations

7.5

avg, IF

5

L-index

#	Paper	IF	Citations
68	Effects of High- β on Phase-Locking Stability and Tunability in Laterally Coupled Lasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2022 , 28, 1-12	3.8	1
67	Neurophotonic tools for microscopic measurements and manipulation: status report.. <i>Neurophotonics</i> , 2022 , 9, 013001	3.9	0
66	Integrated Silicon Fourier Transform Spectrometer with Broad Bandwidth and Ultra-High Resolution. <i>Laser and Photonics Reviews</i> , 2021 , 15, 2000358	8.3	1
65	On-chip spectrometers using stratified waveguide filters. <i>Nature Communications</i> , 2021 , 12, 2704	17.4	3
64	A Non-Mechanical Multi-Wavelength Integrated Photonic Beam Steering System. <i>Journal of Lightwave Technology</i> , 2021 , 39, 4201-4208	4	2
63	Photonic quantum Hall effect and multiplexed light sources of large orbital angular momenta. <i>Nature Physics</i> , 2021 , 17, 700-703	16.2	22
62	The effect of DNA bases permutation on surface-enhanced Raman scattering spectrum. <i>Nanophotonics</i> , 2021 , 10, 1581-1593	6.3	3
61	Mesoscopic Limit Cycles in Coupled Nanolasers. <i>Physical Review Letters</i> , 2020 , 124, 213602	7.4	13
60	Machine learning for composition analysis of ssDNA using chemical enhancement in SERS. <i>Biomedical Optics Express</i> , 2020 , 11, 5092-5121	3.5	7
59	Nanolaser arrays: toward application-driven dense integration. <i>Nanophotonics</i> , 2020 , 10, 149-169	6.3	7
58	Subnanometer imaging and controlled dynamical patterning of thermocapillary driven deformation of thin liquid films. <i>Light: Science and Applications</i> , 2019 , 8, 77	16.7	5
57	On the observation of dispersion in tunable second-order nonlinearities of silicon-rich nitride thin films. <i>APL Photonics</i> , 2019 , 4, 036101	5.2	3
56	Programmable plasmonic phase modulation of free-space wavefronts at gigahertz rates. <i>Nature Photonics</i> , 2019 , 13, 431-435	33.9	18
55	Microwave signal switching on a silicon photonic chip. <i>Scientific Reports</i> , 2019 , 9, 11166	4.9	1
54	Tip-Enhanced Raman Spectroscopy Studies on Amorphous Carbon Films and Carbon Overcoats in Commercial Hard Disk Drives. <i>Tribology Letters</i> , 2018 , 66, 1	2.8	3
53	Fourier transform spectrometer on silicon with thermo-optic non-linearity and dispersion correction. <i>Nature Communications</i> , 2018 , 9, 665	17.4	62
52	Self-reference and random sampling approach for label-free identification of DNA composition using plasmonic nanomaterials. <i>Scientific Reports</i> , 2018 , 8, 7398	4.9	5

51	Design and Analysis of Blue InGaN/GaN Plasmonic LED for High-Speed, High-Efficiency Optical Communications. <i>ACS Photonics</i> , 2018 , 5, 3557-3564	6.3	13
50	Nonlocal and Nonlinear Surface Plasmon Polaritons and Optical Spatial Solitons Induced by the Thermocapillary Effect. <i>Physical Review Letters</i> , 2018 , 120, 243904	7.4	5
49	Channel dispersed Fourier transform spectrometer. <i>Communications Physics</i> , 2018 , 1,	5.4	4
48	On-Chip Digital Fourier-Transform Spectrometer Using a Thermo-Optical Michelson Grating Interferometer. <i>Journal of Lightwave Technology</i> , 2018 , 36, 5160-5167	4	14
47	Element-wise uniqueness, prior knowledge, and data-dependent resolution. <i>Signal, Image and Video Processing</i> , 2017 , 11, 41-48	1.6	2
46	Near-perfect broadband absorption from hyperbolic metamaterial nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 1264-1268	11.5	47
45	Lasing action from photonic bound states in continuum. <i>Nature</i> , 2017 , 541, 196-199	50.4	463
44	Synthesis of second-order nonlinearities in dielectric-semiconductor-dielectric metamaterials. <i>Applied Physics Letters</i> , 2017 , 110, 113103	3.4	3
43	Low Resistance Tunnel Junctions for Efficient Electrically Pumped Nanolasers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017 , 23, 1-6	3.8	4
42	Nonreciprocal lasing in topological cavities of arbitrary geometries. <i>Science</i> , 2017 , 358, 636-640	33.3	336
41	Electronic Metamaterials with Tunable Second-order Optical Nonlinearities. <i>Scientific Reports</i> , 2017 , 7, 9983	4.9	5
40	Detection of optical activity with diode-integrated hyperbolic metasurfaces. <i>Biomedical Optics Express</i> , 2017 , 8, 5594-5603	3.5	3
39	Simulated Raman correlation spectroscopy for quantifying nucleic acid-silver composites. <i>Scientific Reports</i> , 2016 , 6, 23535	4.9	13
38	Metallic coaxial nanolasers. <i>Advances in Physics: X</i> , 2016 , 1, 262-275	5.1	7
37	Constriction Resistance and Current Crowding in Electrically Pumped Semiconductor Nanolasers with the Presence of Undercut and Sidewall Tilt. <i>IEEE Journal of Quantum Electronics</i> , 2016 , 52, 1-7	2	9
36	Integrated Space-Division Multiplexer for Application to Data Center Networks. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016 , 22, 1-6	3.8	18
35	Cell type specificity of neurovascular coupling in cerebral cortex. <i>ELife</i> , 2016 , 5,	8.9	126
34	High-Quality, Ultraconformal Aluminum-Doped Zinc Oxide Nanoplasmonic and Hyperbolic Metamaterials. <i>Small</i> , 2016 , 12, 892-901	11	28

33	Effect of Undercut Etch on Performance and Fabrication Robustness of Metal-Clad Semiconductor Nanolasers. <i>IEEE Journal of Quantum Electronics</i> , 2015 , 51, 1-9	2	5
32	Temperature effects in metal-clad semiconductor nanolasers. <i>Nanophotonics</i> , 2015 , 4, 26-43	6.3	15
31	Characterizing the effects of free carriers in fully etched, dielectric-clad silicon waveguides. <i>Applied Physics Letters</i> , 2015 , 106, 241104	3.4	14
30	Characterization of Distributed Bragg Reflectors. <i>IEEE Journal of Quantum Electronics</i> , 2014 , 50, 453-457	2	5
29	Plasmonic tuning of aluminum doped zinc oxide nanostructures by atomic layer deposition. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 948-952	2.5	16
28	Passive Temperature Stabilization of Silicon Photonic Devices Using Liquid Crystals. <i>Materials</i> , 2014 , 7, 2229-2241	3.5	8
27	Characterization of waveguide loss using distributed Bragg reflectors. <i>Applied Physics B: Lasers and Optics</i> , 2014 , 114, 467-474	1.9	5
26	Electrically pumped metallo-dielectric pedestal nanolasers 2013 ,		1
25	Applied physics. Directing data center traffic. <i>Science</i> , 2013 , 342, 202-3	33.3	9
24	Wafer bonded distributed feedback laser with sidewall modulated Bragg gratings. <i>Applied Physics Letters</i> , 2013 , 103, 043105	3.4	12
23	Optical Bistability in a Silicon Waveguide Distributed Bragg Reflector Fabry-Pérot Resonator. <i>Journal of Lightwave Technology</i> , 2012 , 30, 2352-2355	4	28
22	Response to Comment on Nonreciprocal Light Propagation in a Silicon Photonic Circuit <i>Science</i> , 2012 , 335, 38.3-38	33.3	15
21	MANIPULATION OF PLASMONICS FROM NANO TO MICRO SCALE. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , 2011 , 285-303	0.1	
20	Modified long-range surface plasmon polariton modes for laser nanoresonators. <i>Journal of Applied Physics</i> , 2011 , 110, 063106	2.5	13
19	Nanofluidic Chips: Real-Time Template-Assisted Manipulation of Nanoparticles in a Multilayer Nanofluidic Chip (Small 19/2011). <i>Small</i> , 2011 , 7, 2678-2678	11	
18	Third-order nonlinearity in silicon beyond 2350 nm. <i>Applied Physics Letters</i> , 2011 , 99, 081102	3.4	26
17	Design and analysis of a narrowband filter for optical platform 2011 ,		3
16	Three-dimensional composite metallodielectric nanostructure for enhanced surface plasmon resonance sensing. <i>Applied Physics Letters</i> , 2009 , 94, 073117	3.4	16

15	Optimization-Based Analysis of Modulation Instability in Resonant Cavities. <i>IEEE Photonics Technology Letters</i> , 2008 , 20, 258-260	2.2	
14	Plasmonic photonic crystal with a complete band gap for surface plasmon polariton waves. <i>Applied Physics Letters</i> , 2008 , 93, 231105	3-4	28
13	Wavelength selective coupler with vertical gratings on silicon chip. <i>Applied Physics Letters</i> , 2008 , 92, 201111	3-4	33
12	Spectral sensitivity of two-dimensional nanohole array surface plasmon polariton resonance sensor. <i>Applied Physics Letters</i> , 2007 , 91, 123112	3-4	143
11	Photonic Bandgap Microcavities With Flat-Top Response. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2007 , 13, 262-269	3-8	6
10	Observation of the splitting of degenerate surface plasmon polariton modes in a two-dimensional metallic nanohole array. <i>Applied Physics Letters</i> , 2007 , 90, 111103	3-4	25
9	Tunable Transmission Resonant Filter and Modulator With Vertical Gratings. <i>Journal of Lightwave Technology</i> , 2007 , 25, 1147-1151	4	38
8	Fourier plasmonics: Diffractive focusing of in-plane surface plasmon polariton waves. <i>Applied Physics Letters</i> , 2007 , 91, 081101	3-4	63
7	Wave front evolution of negatively refracted waves in a photonic crystal. <i>Applied Physics Letters</i> , 2007 , 90, 041113	3-4	25
6	Negative Index Metamaterials with Deeply Subwavelength Structural Dimensions from Near Infrared to Visible Based on Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 964, 1		
5	On-chip microfluidic tuning of an optical microring resonator. <i>Applied Physics Letters</i> , 2006 , 88, 111107	3-4	75
4	On-chip microfluidic tuning of an microring resonator 2006 ,		1
3	Photosensitive quantum dot composites and their applications in optical structures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2005 , 23, 2413		23
2	Excitation and direct imaging of surface plasmon polariton modes in a two-dimensional grating. <i>Applied Physics Letters</i> , 2005 , 86, 111110	3-4	31
1	A microfluidic 2D optical switch. <i>Applied Physics Letters</i> , 2004 , 85, 6119-6121	3-4	58