

Eli Yablonovitch

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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.

52
papers

6,261
citations

25
h-index

76
g-index

76
ext. papers

7,342
ext. citations

9.7
avg. IF

5.9
L-index

#	Paper	IF	Citations
52	Statistical ray optics. <i>Journal of the Optical Society of America</i> , 1982 , 72, 899		815
51	Strong interlayer coupling in van der Waals heterostructures built from single-layer chalcogenides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 6198-202	11.5	803
50	Near-unity photoluminescence quantum yield in MoS ₂ . <i>Science</i> , 2015 , 350, 1065-8	33.3	792
49	Electron-spin-resonance transistors for quantum computing in silicon-germanium heterostructures. <i>Physical Review A</i> , 2000 , 62,	2.6	660
48	Strong Internal and External Luminescence as Solar Cells Approach the Shockley-Queisser Limit. <i>IEEE Journal of Photovoltaics</i> , 2012 , 2, 303-311	3.7	658
47	Extreme selectivity in the lift-off of epitaxial GaAs films. <i>Applied Physics Letters</i> , 1987 , 51, 2222-2224	3.4	619
46	Adjoint shape optimization applied to electromagnetic design. <i>Optics Express</i> , 2013 , 21, 21693-701	3.3	242
45	High Photoluminescence Quantum Yield in Band Gap Tunable Bromide Containing Mixed Halide Perovskites. <i>Nano Letters</i> , 2016 , 16, 800-6	11.5	218
44	Short-channel field-effect transistors with 9-atom and 13-atom wide graphene nanoribbons. <i>Nature Communications</i> , 2017 , 8, 633	17.4	215
43	Fundamental Efficiency Limit of Lead Iodide Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1703-1711	6.4	141
42	Electrical suppression of all nonradiative recombination pathways in monolayer semiconductors. <i>Science</i> , 2019 , 364, 468-471	33.3	139
41	High Luminescence Efficiency in MoS ₂ Grown by Chemical Vapor Deposition. <i>ACS Nano</i> , 2016 , 10, 6535-416.7	16.7	115
40	Optical antenna enhanced spontaneous emission. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 1704-9	11.5	106
39	Ultraefficient thermophotovoltaic power conversion by band-edge spectral filtering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 15356-15361	11.5	83
38	Roadmap on optical energy conversion. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 073004	1.7	69
37	Inverse design of near unity efficiency perfectly vertical grating couplers. <i>Optics Express</i> , 2018 , 26, 4766-4779	3.5	69
36	SOLAR CELLS. Lead halides join the top optoelectronic league. <i>Science</i> , 2016 , 351, 1401	33.3	48

35	High-performance near-field electroluminescent refrigeration device consisting of a GaAs light emitting diode and a Si photovoltaic cell. <i>Journal of Applied Physics</i> , 2017 , 122, 143104	2.5	43
34	Engineering the Electron Hole Bilayer Tunneling Field-Effect Transistor. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 1599-1606	2.9	43
33	Controlling the Spontaneous Precipitation of Silver Nanoparticles in Sol-Gel Materials. <i>Journal of Sol-Gel Science and Technology</i> , 2000 , 19, 249-252	2.3	38
32	Device Architectures for Enhanced Photon Recycling in Thin-Film Multijunction Solar Cells. <i>Advanced Energy Materials</i> , 2015 , 5, 1400919	21.8	33
31	Electroluminescent refrigeration by ultra-efficient GaAs light-emitting diodes. <i>Journal of Applied Physics</i> , 2018 , 123, 173104	2.5	29
30	Impact of Quantization Energy and Gate Leakage in Bilayer Tunneling Transistors. <i>IEEE Electron Device Letters</i> , 2013 , 34, 298-300	4.4	29
29	. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 801-809	3.7	27
28	Lowering HAMR Near-Field Transducer Temperature via Inverse Electromagnetic Design. <i>IEEE Transactions on Magnetics</i> , 2015 , 51, 1-7	2	25
27	Leveraging continuous material averaging for inverse electromagnetic design. <i>Optics Express</i> , 2018 , 26, 31717-31737	3.3	18
26	Nanomechanical Switch Designs to Overcome the Surface Adhesion Energy Limit. <i>IEEE Electron Device Letters</i> , 2015 , 36, 963-965	4.4	14
25	Auger generation as an intrinsic limit to tunneling field-effect transistor performance. <i>Journal of Applied Physics</i> , 2016 , 120, 084507	2.5	14
24	Tunneling Nanoelectromechanical Switches Based on Compressible Molecular Thin Films. <i>ACS Nano</i> , 2015 , 9, 7886-94	16.7	12
23	Ultrafast Spontaneous Emission from a Slot-Antenna Coupled WSe ₂ Monolayer. <i>ACS Photonics</i> , 2018 , 5, 2701-2705	6.3	12
22	Physics successfully implements Lagrange multiplier optimization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 26639-26650	11.5	11
21	Hierarchical Design and Optimization of Silicon Photonics. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2020 , 26, 1-12	3.8	11
20	Measurement of the temporal delay of a light pulse through a one-dimensional photonic crystal. <i>Microwave and Optical Technology Letters</i> , 1999 , 20, 17-21	1.2	6
19	Light, the universe and everything – 2 Herculean tasks for quantum cowboys and black diamond skiers. <i>Journal of Modern Optics</i> , 2018 , 65, 1261-1308	1.1	5
18	Tunnel-FET Switching Is Governed by Non-Lorentzian Spectral Line Shape. <i>Proceedings of the IEEE</i> , 2020 , 108, 1235-1244	14.3	4

17	Electrically injected nanoLED with enhanced spontaneous emission from a cavity backed optical slot antenna 2014 ,		3
16	Spin-orbit torque rectifier for weak RF energy harvesting. <i>Applied Physics Letters</i> , 2021 , 118, 052408	3-4	3
15	Thermodynamics of Light Management in Near-Field Thermophotovoltaics. <i>Physical Review Applied</i> , 2021 , 16,	4-3	3
14	Impact of interface defects on tunneling FET turn-on steepness 2015 ,		2
13	Large spontaneous emission rate enhancement from an electrically-injected nanoLED coupled to an optical antenna 2015 ,		2
12	Enhancement of photon emission rate in antenna-coupled nanoLEDs 2012 ,		2
11	Metal optics, optical antennas, and spontaneous hyper-emission 2010 ,		2
10	Spontaneous emission rate enhancement using gold nanorods 2012 ,		2
9	Accurate calibration of thermophotovoltaic efficiency. <i>Photonix</i> , 2020 , 1,	19	2
8	Practical challenges towards 50% efficient thermophotovoltaic energy conversion 2019 ,		2
7	Efficient and broadband single-mode waveguide coupling of electrically injected optical antenna based nanoLED 2017 ,		1
6	Efficient single-mode waveguide coupling of electrically injected optical antenna based nanoLED 2017 ,		1
5	Optical antenna based nanoLED 2011 ,		1
4	Demonstration of Uncoordinated Multiple Access in Optical Communications. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2008 , 55, 3259-3269	3-9	1
3	Practical efficiency limits of electroluminescent cooling 2019 ,		1
2	Sub-50 cm/s surface recombination velocity in InGaAsP/InP ridges. <i>Applied Physics Letters</i> , 2021 , 119, 191102	3-4	0
1	Response to Comment on High-performance near-field electroluminescent refrigeration device consisting of a GaAs light emitting diode and a Si photovoltaic cell [J. Appl. Phys. 122, 143104 (2017)]. <i>Journal of Applied Physics</i> , 2018 , 123, 116102	2.5	