Nathaniel Kinsey

List of Publications by Year
in descending order

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49 papers	3,415 citations	257450 24 h-index	289244 40 g-index
51 all docs	51 docs citations	51 times ranked	3998 citing authors

#	Article	IF	Citations
1	Refractory Plasmonics with Titanium Nitride: Broadband Metamaterial Absorber. Advanced Materials, 2014, 26, 7959-7965.	21.0	603
2	Enhanced Nonlinear Refractive Index in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Îµ</mml:mi></mml:math>-Near-Zero Materials. Physical Review Letters, 2016, 116, 233901.	7.8	348
3	Low-loss plasmon-assisted electro-optic modulator. Nature, 2018, 556, 483-486.	27.8	312
4	Epsilon-near-zero Al-doped ZnO for ultrafast switching at telecom wavelengths. Optica, 2015, 2, 616.	9.3	280
5	Roadmap on plasmonics. Journal of Optics (United Kingdom), 2018, 20, 043001.	2.2	240
6	Near-zero-index materials for photonics. Nature Reviews Materials, 2019, 4, 742-760.	48.7	234
7	Towards CMOS-compatible nanophotonics: Ultra-compact modulators using alternative plasmonic materials. Optics Express, 2013, 21, 27326.	3.4	125
8	Roadmap on optical metamaterials. Journal of Optics (United Kingdom), 2016, 18, 093005.	2.2	118
9	Examining nanophotonics for integrated hybrid systems: a review of plasmonic interconnects and modulators using traditional and alternative materials [Invited]. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 121.	2.1	111
10	Optical Properties of Plasmonic Ultrathin TiN Films. Advanced Optical Materials, 2017, 5, 1700065.	7.3	95
11	Controlling hybrid nonlinearities in transparent conducting oxides via two-colour excitation. Nature Communications, 2017, 8, 15829.	12.8	91
12	Highâ€Performance Doped Silver Films: Overcoming Fundamental Material Limits for Nanophotonic Applications. Advanced Materials, 2017, 29, 1605177.	21.0	90
13	Experimental demonstration of titanium nitride plasmonic interconnects. Optics Express, 2014, 22, 12238.	3.4	76
14	Adiabatic frequency shifting in epsilon-near-zero materials: the role of group velocity. Optica, 2020, 7, 226.	9.3	76
15	Controlling the Plasmonic Properties of Ultrathin TiN Films at the Atomic Level. ACS Photonics, 2018, 5, 2816-2824.	6.6	74
16	Nonlinear epsilon-near-zero materials explained: opinion. Optical Materials Express, 2019, 9, 2793.	3.0	60
17	Interfacial Selfâ€Assembly of Colloidal Nanoparticles in Dualâ€Droplet Inkjet Printing. Advanced Materials Interfaces, 2018, 5, 1701561.	3.7	55
18	Effective third-order nonlinearities in metallic refractory titanium nitride thin films. Optical Materials Express, 2015, 5, 2395.	3.0	50

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19	Fast and Slow Nonlinearities in Epsilonâ€Nearâ€Zero Materials. Laser and Photonics Reviews, 2021, 15, 2000291.	8.7	44
20	Absorptive loss and band non-parabolicity as a physical origin of large nonlinearity in epsilon-near-zero materials. Optical Materials Express, 2020, 10, 1545.	3.0	40
21	On-Chip Hybrid Photonic-Plasmonic Waveguides with Ultrathin Titanium Nitride Films. ACS Photonics, 2018, 5, 4423-4431.	6.6	36
22	Dynamic nanophotonics [Invited]. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 95.	2.1	30
23	Adiabatically Tapered Hyperbolic Metamaterials for Dispersion Control of High-k Waves. Nano Letters, 2015, 15, 498-505.	9.1	26
24	Gyroidal titanium nitride as nonmetallic metamaterial. Optical Materials Express, 2015, 5, 1316.	3.0	25
25	Reliable modeling of ultrathin alternative plasmonic materials using spectroscopic ellipsometry [Invited]. Optical Materials Express, 2019, 9, 760.	3.0	19
26	Alternative Plasmonic Materials. Handbook of Surface Science, 2014, 4, 189-221.	0.3	15
27	Angled physical vapor deposition techniques for non-conformal thin films and three-dimensional structures. MRS Communications, 2016, 6, 17-22.	1.8	12
28	Plasmonic titanium nitride via atomic layer deposition: A low-temperature route. Journal of Applied Physics, 2020, 127, .	2.5	12
29	Doppler-Shift Emulation Using Highly Time-Refracting TCO Layer. , 2016, , .		12
30	Nonlinearities and carrier dynamics in refractory plasmonic TiN thin films. Optical Materials Express, 2019, 9, 3911.	3.0	12
31	A Platform for Complementary Metalâ€Oxideâ€Semiconductor Compatible Plasmonics: High Plasmonic Quality Titanium Nitride Thin Films on Si (001) with a MgO Interlayer. Advanced Photonics Research, 2021, 2, 2000210.	3.6	8
32	Al:ZnO as a platform for near-zero-index photonics: enhancing the doping efficiency of atomic layer deposition. Optical Materials Express, 2020, 10, 3060.	3.0	8
33	Deterministic modeling of hybrid nonlinear effects in epsilon-near-zero thin films. Applied Physics Letters, 2022, 120, .	3.3	8
34	Optimizing epsilon-near-zero based plasmon assisted modulators through surface-to-volume ratio. Optics Express, 2022, 30, 19781.	3.4	6
35	Plasmonic colors in titanium nitride for robust and covert security features. Optics Express, 2021, 29, 19586.	3.4	5
36	Plasmonic Interconnects Using Zirconium Nitride. , 2016, , .		5

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37	Highâ€Quality Plasmonic Materials TiN and ZnO:Al by Atomic Layer Deposition. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100227.	2.4	4
38	Temporal dynamics of strongly coupled epsilon near-zero plasmonic systems. Applied Physics Letters, 2021, 119, .	3.3	3
39	Plasmonic modulator using CMOS-compatible material platform. , 2014, , .		2
40	Developing momentum in vanishing index photonics. Light: Science and Applications, 2022, 11, .	16.6	2
41	CMOS Compatible Ultra-Compact Modulator. , 2014, , .		1
42	Emerging materials for tailorable nanophotonic devices. , 2018, , .		1
43	Air-Droplet Interfaces: Interfacial Self-Assembly of Colloidal Nanoparticles in Dual-Droplet Inkjet Printing (Adv. Mater. Interfaces 10/2018). Advanced Materials Interfaces, 2018, 5, 1870047.	3.7	1
44	Optical Nonlinearities in Transparent Conducting Oxides â€" The Role of Loss. , 2019, , .		1
45	Epsilon Near-Zero Nonlinear Optical Measurements of Titanium Nitride Thin Films. , 2018, , .		1
46	Practical Platform for Nanophotonics with Refractory Plasmonic Metal Nitrides and Transparent Conducting Oxides. , 2015, , .		1
47	A practical platform for integrated optics with nitrides and oxides. , 2015, , .		0
48	Transparent conducting oxides as dynamic materials at telecom wavelengths. , 2015, , .		0
49	Design and Optimization of an Acoustic Metamaterial Lens. , 2020, , .		0