

Kosmas L Tsakmakidis

List of Publications by Year in descending order

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87
papers

3,055
citations

304701

22
h-index

155644

55
g-index

97
all docs

97
docs citations

97
times ranked

2935
citing authors

#	ARTICLE	IF	CITATIONS
1	“Trapped rainbow” storage of light in metamaterials. <i>Nature</i> , 2007, 450, 397-401.	27.8	763
2	Active nanoplasmonic metamaterials. <i>Nature Materials</i> , 2012, 11, 573-584.	27.5	502
3	Overcoming Losses with Gain in a Negative Refractive Index Metamaterial. <i>Physical Review Letters</i> , 2010, 105, 127401.	7.8	251
4	Breaking Lorentz reciprocity to overcome the time-bandwidth limit in physics and engineering. <i>Science</i> , 2017, 356, 1260-1264.	12.6	174
5	Nanophotonic Platforms for Enhanced Chiral Sensing. <i>ACS Photonics</i> , 2018, 5, 2669-2675.	6.6	138
6	Ultraslow waves on the nanoscale. <i>Science</i> , 2017, 358, .	12.6	107
7	Accessible Superchiral Near-Fields Driven by Tailored Electric and Magnetic Resonances in All-Dielectric Nanostructures. <i>ACS Photonics</i> , 2019, 6, 1939-1946.	6.6	82
8	Coherent Amplification and Noise in Gain-Enhanced Nanoplasmonic Metamaterials: A Maxwell-Bloch Langevin Approach. <i>ACS Nano</i> , 2012, 6, 2420-2431.	14.6	79
9	Surface plasmon polaritons in generalized slab heterostructures with negative permittivity and permeability. <i>Physical Review B</i> , 2006, 73, .	3.2	78
10	Large spontaneous-emission enhancements in metallic nanostructures: towards LEDs faster than lasers [Invited]. <i>Optics Express</i> , 2016, 24, 17916.	3.4	76
11	Gain and plasmon dynamics in active negative-index metamaterials. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 3525-3550.	3.4	67
12	Single-mode operation in the slow-light regime using oscillatory waves in generalized left-handed heterostructures. <i>Applied Physics Letters</i> , 2006, 89, 201103.	3.3	60
13	Metamaterials with Quantum Gain. <i>Science</i> , 2013, 339, 654-655.	12.6	59
14	Completely Stopped and Dispersionless Light in Plasmonic Waveguides. <i>Physical Review Letters</i> , 2014, 112, 167401.	7.8	58
15	Theory of Light Amplification in Active Fishnet Metamaterials. <i>Physical Review Letters</i> , 2011, 107, 167405.	7.8	55
16	Negative-permeability electromagnetically induced transparent and magnetically active metamaterials. <i>Physical Review B</i> , 2010, 81, .	3.2	43
17	Ultrabroadband 3D invisibility with fast-light cloaks. <i>Nature Communications</i> , 2019, 10, 4859.	12.8	30
18	Dual Nanoresonators for Ultrasensitive Chiral Detection. <i>ACS Photonics</i> , 2021, 8, 1754-1762.	6.6	30

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19	FDTD analysis of slow light propagation in negative-refractive-index metamaterial waveguides. <i>Journal of Optics</i> , 2009, 11, 114027.	1.5	29
20	Tsakmakidis et al. reply. <i>Nature</i> , 2008, 455, E11-E12.	27.8	27
21	Control and dynamic competition of bright and dark lasing states in active nanoplasmonic metamaterials. <i>Physical Review B</i> , 2012, 85, .	3.2	27
22	Extreme control of light in metamaterials: Complete and loss-free stopping of light. <i>Physica B: Condensed Matter</i> , 2012, 407, 4066-4069.	2.7	26
23	Evanescent gain for slow and stopped light in negative refractive index heterostructures. <i>Physical Review B</i> , 2011, 84, .	3.2	23
24	Micrometer size polarization independent depletion-type photonic modulator in Silicon On Insulator. <i>Optics Express</i> , 2007, 15, 5879.	3.4	22
25	Spherical optomagnonic microresonators: Triple-resonant photon transitions between Zeeman-split Mie modes. <i>Physical Review B</i> , 2020, 101, .	3.2	21
26	Ultralow-loss optical diamagnetism in silver nanoforests. <i>Journal of Optics</i> , 2009, 11, 114026.	1.5	20
27	Topological, nonreciprocal, and multiresonant slow light beyond the time-bandwidth limit. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	13
28	Nonreciprocal cavities and the time-bandwidth limit: comment. <i>Optica</i> , 2020, 7, 1097.	9.3	12
29	Comment on "Spaser Action, Loss Compensation, and Stability in Plasmonic Systems with Gain". <i>Physical Review Letters</i> , 2011, 107, 259701; discussion 259702.	7.8	11
30	Three-Dimensional Giant Invisibility to Superscattering Enhancement Induced by Zeeman-Split Modes. <i>ACS Photonics</i> , 2021, 8, 1407-1412.	6.6	11
31	Magnetic switching of Kerker scattering in spherical microresonators. <i>Nanophotonics</i> , 2020, 9, 4033-4041.	6.0	10
32	Complete bandgap switching in photonic opals. <i>New Journal of Physics</i> , 2009, 11, 073011.	2.9	9
33	Hyperpolarizability of Plasmonic Meta-Atoms in Metasurfaces. <i>Nano Letters</i> , 2021, 21, 51-59.	9.1	9
34	Engineering Subwavelength Nanoantennas in the Visible by Employing Resonant Anisotropic Nanospheroids. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019, 25, 1-12.	2.9	8
35	Stopped-light nanolasing in optical magic-angle graphene. <i>Nature Nanotechnology</i> , 2021, 16, 1048-1049.	31.5	8
36	Systematic modal analysis of 3-D dielectric waveguides using conventional and high accuracy nonstandard FDTD algorithms. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 2598-2600.	2.5	7

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37	Multifunctional plasmonic metasurface demultiplexer and wavelength-polarization controllable beam splitter. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, C50.	2.1	7
38	Quantum coherence-driven self-organized criticality and nonequilibrium light localization. <i>Science Advances</i> , 2018, 4, eaaq0465.	10.3	6
39	Arbitrarily high time bandwidth performance in a nonreciprocal optical resonator with broken time invariance. <i>Scientific Reports</i> , 2020, 10, 15752.	3.3	6
40	Light-Alignment Controllable Beam Splitter and Vectorial Displacement Sensor in the Stopped-Light Regime of Plasmonic Metasurfaces. <i>ACS Photonics</i> , 2021, 8, 296-306.	6.6	6
41	Watch your back. <i>Nature</i> , 2008, 451, 27-27.	27.8	5
42	Slow light in metamaterial heterostructures. <i>Proceedings of SPIE</i> , 2008, , .	0.8	5
43	Trapped Rainbow Storage of Light in Metamaterials. <i>Advances in Science and Technology</i> , 0, , .	0.2	5
44	Complete and robust bandgap switching in double-inverse-opal photonic crystals. <i>Applied Physics Letters</i> , 2008, 92, 011109.	3.3	4
45	Recent developments in the study of slow light in complex photonic materials. , 2010, , .		4
46	Plasmonic Nanolasers Without Cavity, Threshold and Diffraction Limit using Stopped Light. , 2012, , .		3
47	Unconventional time-bandwidth performance of resonant cavities with nonreciprocal coupling. <i>Physical Review A</i> , 2021, 103, .	2.5	3
48	Reply to "Physical limitations on broadband invisibility based on fast-light media". <i>Nature Communications</i> , 2021, 12, 2800.	12.8	3
49	Full-wave electromagnetic modelling of an InP/InGaAs travelling-wave heterojunction phototransistor. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 1805-1814.	2.8	2
50	Slow and stopped light in metamaterials. , 2008, , .		2
51	Slow and stopped light in metamaterials: the trapped rainbow. , 2008, , .		2
52	Trapped rainbow storage of light in metamaterials. , 2010, , .		2
53	Compensation of Losses in Slow-Light Negative-Index Waveguides By Evanescent Pumping. , 2010, , .		2
54	Gain in negative-refractive-index slow-light waveguides. <i>Proceedings of SPIE</i> , 2011, , .	0.8	2

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55	Slow and stopped-light lasing in active plasmonic metamaterials. , 2012, , .		2
56	Tunable polarization-sensitive optical nanoswitches based on spheroidal core-shell nanoparticles. Journal of Optics (United Kingdom), 2018, 20, 085004.	2.2	2
57	Gain enhancement of circular waveguide antennas using near-zero index metamaterials. Microwave and Optical Technology Letters, 2019, 61, 1617-1621.	1.4	2
58	Active THz metasurfaces for compact isolation. Journal of the Optical Society of America B: Optical Physics, 2021, 38, C191.	2.1	2
59	Analytical Methods for Causality Evaluation of Photonic Materials. Materials, 2022, 15, 1536.	2.9	2
60	Exceeding the classical time-bandwidth product in nonlinear time-invariant systems. Nonlinear Dynamics, 0, , 1.	5.2	2
61	Dynamics of amplification in a nanoplasmonic metamaterial. Applied Physics A: Materials Science and Processing, 2012, 107, 77-82.	2.3	1
62	True stopping of light: a new regime for nanophotonics. Proceedings of SPIE, 2014, , .	0.8	1
63	Three-dimensional Weyl topology in one-dimensional photonic structures. Light: Science and Applications, 2022, 11, .	16.6	1
64	FDTD modeling of an InP traveling-wave HPT. , 2004, , .		0
65	Slow light in negative-index waveguide-heterostructures. Proceedings of SPIE, 2007, , .	0.8	0
66	Optical magnetism in metal nanoforests. Proceedings of SPIE, 2009, , .	0.8	0
67	Ultraslow and stored light in metamaterials: new developments and verifications. Proceedings of SPIE, 2009, , .	0.8	0
68	Gain in negative-index metamaterials and slow-light waveguides. Proceedings of SPIE, 2010, , .	0.8	0
69	Dynamics of light amplification and gain in nano-plasmonic fishnet metamaterials. Proceedings of SPIE, 2011, , .	0.8	0
70	From Loss-Compensation to Amplification and Lasing in Active Nanoplasmonic Metamaterials. , 2012, , .		0
71	Nonlinear mode competition in a lasing nanoplasmonic metamaterial. , 2012, , .		0
72	Quantum-Coherently Assisted Deep-UV Localization of Photonic States in Active Stopped-Light Plasmonic Heterostructures. , 2015, , .		0

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73	Predicting the optical response of plasmonic metamolecules using equivalent circuit models. , 2017, , .		0
74	Overcoming the time-bandwidth limit. , 2018, , .		0
75	Optical Delay Beyond the Time-Bandwidth Limit: From Pipe Dream to Reality. , 2019, , .		0
76	Finite-difference time-domain analyses of active cloaking for electrically-large objects. Optics Express, 2021, 29, 3055.	3.4	0
77	Stopping fast waves with a left-handed metamaterial slab. , 2006, , .		0
78	Slow Light in Tapered Negative-Refractive-Index Waveguides. , 2007, , .		0
79	Stopped Light in Negative-Index Metamaterial Heterostructures. , 2008, , .		0
80	“Trapped Rainbow”™ Schemes for Storing Light in Engineered Waveguides. , 2009, , .		0
81	Recent Advances in “Trapped Rainbow”™ Techniques for Stopping Light. , 2009, , .		0
82	Slow Light Amplification and Nano-Lasing in Active Plasmonic Metamaterials. , 2011, , .		0
83	Quantum-Coherently Assisted Deep-UV Localization of Light in Active Plasmonic Heterostructures. , 2015, , .		0
84	Quantum-Coherence Emergent Self-Organized Criticality and Nonequilibrium Light Localization. , 2016, , .		0
85	Demonstration of ultra-high time-bandwidth product in a non-reciprocal fiber-optic system. , 2018, , .		0
86	Theoretical and numerical study of the time-bandwidth product in resonant cavities with nonreciprocal coupling. , 2020, , .		0
87	Duality Symmetry in Hybrid Nanoresonators for Chiral Sensing. , 2020, , .		0