Prakash Pitchappa

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5347892/publications.pdf

Version: 2024-02-01

82 papers	3,223 citations	147566 31 h-index	182168 51 g-index
82 all docs	82 docs citations	82 times ranked	2535 citing authors

#	Article	IF	Citations
1	Terahertz topological photonics for on-chip communication. Nature Photonics, 2020, 14, 446-451.	15.6	449
2	Reconfigurable MEMS Fano metasurfaces with multiple-inputâ€“output states for logic operations at terahertz frequencies. Nature Communications, 2018, 9, 4056.	5.8	200
3	Active Control of Electromagnetically Induced Transparency Analog in Terahertz MEMS Metamaterial. Advanced Optical Materials, 2016, 4, 541-547.	3.6	198
4	An intelligent skin based self-powered finger motion sensor integrated with triboelectric nanogenerator. Nano Energy, 2016, 19, 532-540.	8.2	178
5	Chalcogenide Phase Change Material for Active Terahertz Photonics. Advanced Materials, 2019, 31, e1808157.	11.1	159
6	Active Phase Transition via Loss Engineering in a Terahertz MEMS Metamaterial. Advanced Materials, 2017, 29, 1700733.	11.1	125
7	Active Multifunctional Microelectromechanical System Metadevices: Applications in Polarization Control, Wavefront Deflection, and Holograms. Advanced Optical Materials, 2017, 5, 1600716.	3.6	116
8	Extended Bound States in the Continuum with Symmetryâ€Broken Terahertz Dielectric Metasurfaces. Advanced Optical Materials, 2021, 9, 2002001.	3.6	99
9	Nanofluidic terahertz metasensor for sensing in aqueous environment. Applied Physics Letters, 2018, 113, .	1.5	97
10	A Superconducting Dualâ€Channel Photonic Switch. Advanced Materials, 2018, 30, e1801257.	11.1	86
11	Microfluidic metamaterial sensor: Selective trapping and remote sensing of microparticles. Journal of Applied Physics, 2017, 121, .	1.1	80
12	Electrothermally actuated microelectromechanical systems based omega-ring terahertz metamaterial with polarization dependent characteristics. Applied Physics Letters, 2014, 104, .	1.5	76
13	Micro-electro-mechanically switchable near infrared complementary metamaterial absorber. Applied Physics Letters, 2014, 104, .	1.5	76
14	Shaping Highâ€Q Planar Fano Resonant Metamaterials toward Futuristic Technologies. Advanced Optical Materials, 2018, 6, 1800502.	3.6	70
15	Active control of near-field coupling in conductively coupled microelectromechanical system metamaterial devices. Applied Physics Letters, 2016, 108, .	1.5	67
16	Active Control of Resonant Cloaking in a Terahertz MEMS Metamaterial. Advanced Optical Materials, 2018, 6, 1800141.	3.6	67
17	Dual band complementary metamaterial absorber in near infrared region. Journal of Applied Physics, 2014, 115, .	1.1	65
18	Reconfigurable Digital Metamaterial for Dynamic Switching of Terahertz Anisotropy. Advanced Optical Materials, 2016, 4, 391-398.	3.6	60

#	Article	IF	Citations
19	Active control of electromagnetically induced transparency with dual dark mode excitation pathways using MEMS based tri-atomic metamolecules. Applied Physics Letters, 2016, 109, .	1.5	54
20	Volatile Ultrafast Switching at Multilevel Nonvolatile States of Phase Change Material for Active Flexible Terahertz Metadevices. Advanced Functional Materials, 2021, 31, 2100200.	7.8	53
21	Novel CMOS-Compatible Moâ€“AlNâ€“Mo Platform for Metamaterial-Based Mid-IR Absorber. ACS Photonics, 2017, 4, 302-315.	3.2	51
22	Topological sensor on a silicon chip. Applied Physics Letters, 2022, 121, .	1.5	51
23	Active Ultrahighâ€Q (0.2 Ã— 10⁶) THz Topological Cavities on a Chip. Advanced Materials, 2022, 34, e2202370.	11.1	48
24	Microelectromechanically reconfigurable interpixelated metamaterial for independent tuning of multiple resonances at terahertz spectral region. Optica, 2015, 2, 571.	4.8	46
25	Guidedâ€Mode Resonances in Allâ€Dielectric Terahertz Metasurfaces. Advanced Optical Materials, 2020, 8, 1900959.	3.6	43
26	Electrically Programmable Terahertz Diatomic Metamolecules for Chiral Optical Control. Research, 2019, 2019, 7084251.	2.8	42
27	Micro-electro-mechanically tunable metamaterial with enhanced electro-optic performance. Applied Physics Letters, 2014, 104, .	1.5	38
28	Terahertz Reconfigurable Intelligent Surfaces (RISs) for 6G Communication Links. Micromachines, 2022, 13, 285.	1.4	37
29	Microelectromechanically tunable multiband metamaterial with preserved isotropy. Scientific Reports, 2015, 5, 11678.	1.6	36
30	Periodic Array of Subwavelength MEMS Cantilevers for Dynamic Manipulation of Terahertz Waves. Journal of Microelectromechanical Systems, 2015, 24, 525-527.	1.7	36
31	Active MEMS metamaterials for THz bandwidth control. Applied Physics Letters, 2017, 110, .	1.5	35
32	Frequencyâ€Agile Temporal Terahertz Metamaterials. Advanced Optical Materials, 2020, 8, 2000101.	3.6	32
33	Bidirectional reconfiguration and thermal tuning of microcantilever metamaterial device operating from 77â€‰K to 400â€‰K. Applied Physics Letters, 2017, 111, .	1.5	30
34	Spectral imaging and spectral LIDAR systems: moving toward compact nanophotonics-based sensing. Nanophotonics, 2021, 10, 1437-1467.	2.9	28
35	Terahertz MEMS metadevices. Journal of Micromechanics and Microengineering, 2021, 31, 113001.	1.5	28
36	Dipolar Resonance Enhancement and Magnetic Resonance in Cross-Coupled Bow-Tie Nanoantenna Array by Plasmonic Cavity. ACS Photonics, 2015, 2, 890-898.	3.2	24

#	Article	IF	Citations
37	Polarization controllable multispectral symmetry-breaking absorberin mid-infrared. Journal of Applied Physics, 2016, 120, 063105.	1.1	24
38	A multiband flexible terahertz metamaterial with curvature sensing functionality. Journal of Optics (United Kingdom), 2016, 18, 075101.	1.0	24
39	Digitally reconfigurable binary coded terahertz metamaterial with output analogous to NOR and AND. Journal of Applied Physics, 2016, 119, .	1.1	21
40	Thermoplasmonic Study of a Triple Band Optical Nanoantenna Strongly Coupled to Mid IR Molecular Mode. Scientific Reports, 2016, 6, 22227.	1.6	20
41	Two-dimensional photonic-crystal-based Fabryâ€“Perot etalon. Optics Letters, 2015, 40, 2743.	1.7	19
42	Suspended 2-D photonic crystal aluminum nitride membrane reflector. Optics Express, 2015, 23, 10598.	1.7	18
43	Electromechanically Tunable Frequencyâ€agile Metamaterial Bandpass Filters for Terahertz Waves. Advanced Optical Materials, 2022, 10, 2101544.	3.6	18
44	Development of Polycrystalline Silicon Based Photonic Crystal Membrane for Mid-Infrared Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 94-100.	1.9	17
45	Tantalum-Nitride Antifuse Electromechanical OTP for Embedded Memory Applications. IEEE Electron Device Letters, 2013, 34, 987-989.	2.2	16
46	High Temperature Coupling of IR Inactive Cï£¾C Mode in Complementary Metal Oxide Semiconductor Metamaterial Structure. Advanced Optical Materials, 2017, 5, 1600778.	3.6	16
47	Characterization of polycrystalline silicon-based photonic crystal-suspended membrane for high temperature applications. Journal of Nanophotonics, 2014, 8, 084096.	0.4	15
48	Spaceâ€Time Wave Packets from Smithâ€Purcell Radiation. Advanced Science, 2021, 8, e2100925.	5.6	10
49	Electrically Programmable Terahertz Diatomic Metamolecules for Chiral Optical Control. Research, 2019, 2019, 1-11.	2.8	9
50	Plasmonic cavity assisted dipolar resonance enhancement and optical magnetism at mid IR. , 2015, , .		4
51	Metamaterials: Active Control of Electromagnetically Induced Transparency Analog in Terahertz MEMS Metamaterial (Advanced Optical Materials 4/2016). Advanced Optical Materials, 2016, 4, 540-540.	3.6	3
52	Digitally reconfigurable binary coded terahertz metamaterial with output analogous to NOR and AND. , 2016, , .		2
53	Packaging Technology for Devices in Autonomous Sensor Networks. Springer Series on Chemical Sensors and Biosensors, 2012, , 265-305.	0.5	1
54	Complementary metamaterial infrared absorber. , 2013, , .		1

#	Article	IF	Citations
55	Electrostatically switchable MEMS terahertz metamaterial with polarization-insensitive characteristics. , 2015, , .		1
56	MEMS switchable infrared metamaterial absorber. , 2015, , .		1
57	Enhanced controllability in MEMS metamaterial. , 2015, , .		1
58	Polarization-dependent cut wire in mid-infrared metamaterial absorber. , 2017, , .		1
59	Mid-infrared Non-volatile Compact Optical Phase Shifter Based on Ge₂Sb₂Te₅. , 2020, , .		1
60	Tunable THz filter using 3-D split-ring resonators. , 2013, , .		0
61	Development of tunable 3-D eSRR for THz applications. , 2013, , .		0
62	Enhanced electro-optic switching characteristics using mems based terahertz metamaterial. , 2014, , .		0
63	Electrothermally actuated MEMS terahertz metamaterial. , 2014, , .		0
64	Active MEMS metamaterial with uniaxially isotropic dual band switching characteristics in terahertz region. , 2015, , .		0
65	Subwavelength MEMS cantilever array for dynamic manipulation of terahertz waves. , 2015, , .		0
66	Linear polarization switching in terahertz MEMS metamaterial. , 2015, , .		0
67	Polycrystalline silicon based photonic crystal Fabry-Perot etalon. , 2015, , .		0
68	Polycrystalline silicon based photonic crystal Fabry-Perot etalon. , 2015, , .		0
69	Polarization-insensitive electro-optic switching in terahertz MEMS metamaterial. , 2015, , .		0
70	Subwavelength prestressed microcantilevers based metamaterials for efficient manipulation of terahertz waves. , 2015, , .		0
71	MEMS tunable terahertz metamaterials using out-of-plane mechanisms. , 2015, , .		0
72	Thermally robust coupled mode at mid IR mediated by highly dense plasmonic nanostructure. , 2016, , .		0

#	Article	IF	Citations
73	Particle-trap array on metamaterial for selective detection in terahertz region. , 2016, , .		0
74	Graphene based tunable plasmonic resonator at mid-infrared. , 2016, , .		0
75	Active control of electromagnetically induced transparency analogue and slow light phenomena via MEMS based terahertz metamaterials. , 2016, , .		0
76	Versatility of microcantilever metamaterials for advanced polarization control in terahertz region. , 2016, , .		0
77	Ultrathin flexible sensor in curving terahertz metamaterial. , 2016, , .		0
78	Polarization controllable multispectral symmetry-breaking absorber in mid-infrared. , 2016, , .		0
79	Reconfigurable MEMS metamaterial based active THz photonics. , 2019, , .		0
80	Extremely Low threshold Optical Switching and Modulation of Ion-irradiated High-Tc Superconducting Metamaterial. , 2019, , .		0
81	Terahertz MEMS metamaterials. , 2017, , 321-344.		0
82	Reconfigurable MEMS metasurface for active tuning of Fano resonance and logic gate operations at THz frequencies. , 2019, , .		0