Trevon Badloe

List of Publications by Year
in descending order

59 papers	3,825 citations	94269 37 h-index	138251 58 g-index
59 all docs	59 docs citations	59 times ranked	1914 citing authors

#	Article	IF	Citations
1	Three-dimensional artificial chirality towards low-cost and ultra-sensitive enantioselective sensing. Nanoscale, 2022, 14, 3720-3730.	2.8	20
2	Enhancement of Luminous Intensity Emission from Incoherent LED Light Sources within the Detection Angle of 10Â° Using Metalenses. Nanomaterials, 2022, 12, 153.	1.9	3
3	Hyperbolic metamaterials: fusing artificial structures to natural 2D materials. ELight, 2022, 2, .	11.9	190
4	Multilevel Absorbers via the Integration of Undoped and Tungsten-Doped Multilayered Vanadium Dioxide Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 1404-1412.	4.0	14
5	Metasurface-empowered spectral and spatial light modulation for disruptive holographic displays. Nanoscale, 2022, 14, 4380-4410.	2.8	29
6	Nanostructured chromium-based broadband absorbers and emitters to realize thermally stable solar thermophotovoltaic systems. Nanoscale, 2022, 14, 6425-6436.	2.8	69
7	Photonic Encryption Platform via Dual-Band Vectorial Metaholograms in the Ultraviolet and Visible. ACS Nano, 2022, 16, 3546-3553.	7.3	87
8	Tunable metasurfaces towards versatile metalenses and metaholograms: a review. Advanced Photonics, 2022, 4, .	6.2	108
9	Tutorial on metalenses for advanced flat optics: Design, fabrication, and critical considerations. Journal of Applied Physics, 2022, 131, .	1.1	23
10	Liquid crystal-powered Mie resonators for electrically tunable photorealistic color gradients and dark blacks. Light: Science and Applications, 2022, 11, 118.	7.7	73
11	Novel Spinâ€Decoupling Strategy in Liquid Crystalâ€Integrated Metasurfaces for Interactive Metadisplays. Advanced Optical Materials, 2022, 10, .	3.6	65
12	Gap-plasmon-driven spin angular momentum selection of chiral metasurfaces for intensity-tunable metaholography working at visible frequencies. Nanophotonics, 2022, 11, 4123-4133.	2.9	15
13	Three-Dimensional Plasmonic Nanocluster-Driven Lightâ€“Matter Interaction for Photoluminescence Enhancement and Picomolar-Level Biosensing. Nano Letters, 2022, 22, 4702-4711.	4.5	20
14	Metasurface Holography Reaching the Highest Efficiency Limit in the Visible via Oneâ€Step Nanoparticleâ€Embeddedâ€Resin Printing. Laser and Photonics Reviews, 2022, 16, .	4.4	46
15	Thermally-curable nanocomposite printing for the scalable manufacturing of dielectric metasurfaces. Microsystems and Nanoengineering, 2022, 8, .	3.4	16
16	Single-Step Fabricable Flexible Metadisplays for Sensitive Chemical/Biomedical Packaging Security and Beyond. ACS Applied Materials & Interfaces, 2022, 14, 31194-31202.	4.0	52
17	Sub-ambient daytime radiative cooling by silica-coated porous anodic aluminum oxide. Nano Energy, 2021, 79, 105426.	8.2	113
18	Realization of Artificial Chirality in Micro-/Nano-Scale Three-Dimensional Plasmonic Structures. Topics in Applied Physics, 2021, , 241-263.	0.4	1

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19	Revealing Structural Disorder in Hydrogenated Amorphous Silicon for a Lowâ€Loss Photonic Platform at Visible Frequencies. Advanced Materials, 2021, 33, e2005893.	11.1	69
20	Optical spin-symmetry breaking for high-efficiency directional helicity-multiplexed metaholograms. Microsystems and Nanoengineering, 2021, 7, 5.	3.4	81
21	Nanoimprint lithography for high-throughput fabrication of metasurfaces. Frontiers of Optoelectronics, 2021, 14, 229-251.	1.9	65
22	Vanadium Dioxide for Dynamically Tunable Photonics. ChemNanoMat, 2021, 7, 713-727.	1.5	35
23	Holographic metasurface gas sensors for instantaneous visual alarms. Science Advances, 2021, 7, .	4.7	149
24	Nearly Perfect Transmissive Subtractive Coloration through the Spectral Amplification of Mie Scattering and Lattice Resonance. ACS Applied Materials & Interfaces, 2021, 13, 26299-26307.	4.0	45
25	Nanophotonics for light detection and ranging technology. Nature Nanotechnology, 2021, 16, 508-524.	15.6	213
26	Geometric and physical configurations of metaâ€atoms for advanced metasurface holography. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 739-754.	8.5	56
27	Dualâ€Band Operating Metaholograms with Heterogeneous Metaâ€Atoms in the Visible and Nearâ€Infrared. Advanced Optical Materials, 2021, 9, 2100609.	3.6	40
28	Inverse design of ultra-narrowband selective thermal emitters designed by artificial neural networks. Optical Materials Express, 2021, 11, 1863.	1.6	22
29	Pixelated bifunctional metasurface-driven dynamic vectorial holographic color prints for photonic security platform. Nature Communications, 2021, 12, 3614.	5.8	176
30	Chiroptical Metasurfaces: Principles, Classification, and Applications. Sensors, 2021, 21, 4381.	2.1	40
31	Unlocking the future of optical security with metasurfaces. Light: Science and Applications, 2021, 10, 144.	7.7	15
32	Tunable Metasurfaces: The Path to Fully Active Nanophotonics. Advanced Photonics Research, 2021, 2, 2000205.	1.7	57
33	Giant chiro-optical responses in multipolar-resonances-based single-layer dielectric metasurfaces. Photonics Research, 2021, 9, 1667.	3.4	71
34	Electrically Tunable Bifocal Metalens with Diffractionâ€Limited Focusing and Imaging at Visible Wavelengths. Advanced Science, 2021, 8, e2102646.	5.6	89
35	Dynamic Optical Spin Hall Effect in Chitosan-Coated All-Dielectric Metamaterials for a Biosensing Platform. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-8.	1.9	17
36	Metasurface-Driven Optically Variable Devices. Chemical Reviews, 2021, 121, 13013-13050.	23.0	125

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37	Dualâ€Band Operating Metaholograms with Heterogeneous Metaâ€Atoms in the Visible and Nearâ€Infrared (Advanced Optical Materials 19/2021). Advanced Optical Materials, 2021, 9, 2170075.	3.6	0
38	Emerging advanced metasurfaces: Alternatives to conventional bulk optical devices. Microelectronic Engineering, 2020, 220, 111146.	1.1	28
39	Biomimetic ultra-broadband perfect absorbers optimised with reinforcement learning. Physical Chemistry Chemical Physics, 2020, 22, 2337-2342.	1.3	56
40	Critical Layer Thickness Analysis of Vertically Stacked Hyperbolic Metamaterials for Effective Negative Refraction Generation. Advanced Theory and Simulations, 2020, 3, 2000138.	1.3	11
41	Scalable and High-Throughput Top-Down Manufacturing of Optical Metasurfaces. Sensors, 2020, 20, 4108.	2.1	22
42	Full and gradient structural colouration by lattice amplified gallium nitride Mie-resonators. Nanoscale, 2020, 12, 21392-21400.	2.8	37
43	Spectral Modulation through the Hybridization of Mie-Scatterers and Quasi-Guided Mode Resonances: Realizing Full and Gradients of Structural Color. ACS Nano, 2020, 14, 15317-15326.	7.3	98
44	Electromagnetic chirality: from fundamentals to nontraditional chiroptical phenomena. Light: Science and Applications, 2020, 9, 139.	7.7	231
45	Moth-eye shaped on-demand broadband and switchable perfect absorbers based on vanadium dioxide. Scientific Reports, 2020, 10, 4522.	1.6	40
46	Deep learning enabled inverse design in nanophotonics. Nanophotonics, 2020, 9, 1041-1057.	2.9	295
47	Metasurfaces-based imaging and applications: from miniaturized optical components to functional imaging platforms. Nanoscale Advances, 2020, 2, 605-625.	2.2	52
48	Employing vanadium dioxide nanoparticles for flexible metasurfaces with switchable absorption properties at near-infrared frequencies. Journal of Optics (United Kingdom), 2020, 22, 114002.	1.0	26
49	Deep Q-network to produce polarization-independent perfect solar absorbers: a statistical report. Nano Convergence, 2020, 7, 26.	6.3	16
50	Structural color switching with a doped indium-gallium-zinc-oxide semiconductor. Photonics Research, 2020, 8, 1409.	3.4	46
51	Near-zero reflection of all-dielectric structural coloration enabling polarization-sensitive optical encryption with enhanced switchability. Nanophotonics, 2020, 10, 919-926.	2.9	55
52	Surface-enhanced spectroscopy: Toward practical analysis probe. Applied Spectroscopy Reviews, 2019, 54, 142-175.	3.4	19
53	A Spinâ€Encoded Allâ€Dielectric Metahologram for Visible Light. Laser and Photonics Reviews, 2019, 13, 1900065.	4.4	95
54	Metamaterial-Based Radiative Cooling: Towards Energy-Free All-Day Cooling. Energies, 2019, 12, 89.	1.6	85

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55	Optimisation of colour generation from dielectric nanostructures using reinforcement learning. Optics Express, 2019, 27, 5874.	1.7	112
56	All-dielectric metasurface imaging platform applicable to laser scanning microscopy with enhanced axial resolution and wavelength selection. Optical Materials Express, 2019, 9, 3248.	1.6	18
57	Realization of Wafer-Scale Hyperlens Device for Sub-diffractional Biomolecular Imaging. ACS Photonics, 2018, 5, 2549-2554.	3.2	50
58	Effect of temperature on the oxidation of Cu nanowires and development of an easy to produce, oxidation-resistant transparent conducting electrode using a PEDOT:PSS coating. Scientific Reports, 2018, 8, 10639.	1.6	59
59	Metasurfaces-Based Absorption and Reflection Control: Perfect Absorbers and Reflectors. Journal of Nanomaterials, 2017, 2017, 1-18.	1.5	65