

# Muhammad Qasim Mehmood

## List of Publications by Year in descending order

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95  
papers

3,853  
citations

126907

33  
h-index

123424

61  
g-index

99  
all docs

99  
docs citations

99  
times ranked

2551  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atmospheric propagation of space-fractional Gaussian-beam waves in a FSO communication system. Optics Express, 2022, 30, 1570.	3.4	4
2	Numerical modeling and performance optimization of carbon-based hole transport layer free perovskite solar cells. Optical Materials, 2022, 125, 112075.	3.6	9
3	Nanostructured chromium-based broadband absorbers and emitters to realize thermally stable solar thermophotovoltaic systems. Nanoscale, 2022, 14, 6425-6436.	5.6	69
4	Evaluating the most efficient 2D ZrN nanostructures for broadband metasurface absorbers. , 2022, , .		3
5	A compact high isolation wideband MIMO antenna for multi-band applications. Journal of Electromagnetic Waves and Applications, 2022, 36, 2041-2054.	1.6	4
6	Novel Spinâ€Decoupling Strategy in Liquid Crystalâ€Integrated Metasurfaces for Interactive Metadisplays. Advanced Optical Materials, 2022, 10, .	7.3	65
7	Wearable DIY Capacitive Touch Interface on Fabric Substrate for Digital Switch Control. , 2022, , .		0
8	The Dawn of Metadevices: From Contemporary Designs to Exotic Applications. Advanced Devices & Instrumentation, 2022, 2022, .	6.5	32
9	Single-Step Fabricable Flexible Metadisplays for Sensitive Chemical/Biomedical Packaging Security and Beyond. ACS Applied Materials & Interfaces, 2022, 14, 31194-31202.	8.0	52
10	Revisiting tantalum based nanostructures for efficient harvesting of solar radiation in STPV systems. Nano Energy, 2021, 80, 105520.	16.0	39
11	A Novel Cesaro Fractal EBG-Based Sensing Platform for Dielectric Characterization of Liquids. IEEE Transactions on Antennas and Propagation, 2021, 69, 2887-2895.	5.1	17
12	A Low-cost Photopaper Based Wideband Wearable Antenna for WBAN Applications. , 2021, , .		5
13	Single-layered meta-reflectarray for polarization retention and spin-encrypted phase-encoding. Optics Express, 2021, 29, 3230.	3.4	27
14	Deep Learning based Sequence Modeling for Optical response retrieval of photonic nanostructures. , 2021, , .		1
15	Engineering tunability through electro-optic effects to manifest a multifunctional metadevice. RSC Advances, 2021, 11, 13220-13228.	3.6	14
16	Manifesting Simultaneous Optical Spin Conservation and Spin Isolation in Diatomic Metasurfaces. Advanced Optical Materials, 2021, 9, 2002002.	7.3	39
17	Chiroptical effect induced by achiral structures for full-dimensional manipulation of optical waves. , 2021, , .		3
18	Optical spin-symmetry breaking for high-efficiency directional helicity-multiplexed metaholograms. Microsystems and Nanoengineering, 2021, 7, 5.	7.0	81

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19	Holographic metasurface gas sensors for instantaneous visual alarms. <i>Science Advances</i> , 2021, 7, .	10.3	149
20	Pencil-on-Paper-Based Touchpad for Ecofriendly and Reusable Human-Machine Interface. , 2021, 5, 1-4.		20
21	Paper-based Electronics: Passive Components and Low Pass Filters Using Solvent-free Eco-friendly Fabrication. , 2021, , .		0
22	Penciling a Flexible and Eco-friendly Touchpad on Paper for Disposable User Interface. , 2021, , .		1
23	Chiroptical Metasurfaces: Principles, Classification, and Applications. <i>Sensors</i> , 2021, 21, 4381.	3.8	40
24	Giant chiro-optical responses in multipolar-resonances-based single-layer dielectric metasurfaces. <i>Photonics Research</i> , 2021, 9, 1667.	7.0	71
25	Deep learning based hybrid sequence modeling for optical response retrieval in metasurfaces for STPV applications. <i>Optical Materials Express</i> , 2021, 11, 3178.	3.0	19
26	Active-metasurfaces to realize tunable resonances and focusing. , 2021, , .		4
27	Unraveling the vector nature of generalized space-fractional Bessel beams. <i>Physical Review A</i> , 2021, 104, .	2.5	6
28	Tunable and foldable paper-based passive electronic components and filter circuits. <i>Cellulose</i> , 2021, 28, 9959-9970.	4.9	8
29	Exploiting zirconium nitride for an efficient heat-resistant absorber and emitter pair for solar thermophotovoltaic systems. <i>Optics Express</i> , 2021, 29, 31537.	3.4	23
30	A Textile Based Wideband Wearable Antenna. , 2021, , .		4
31	Compact Non-Chiral Dielectric Metasurfaces to Manifest Enormous Chirality based Optical Responses. , 2021, , .		1
32	Realizing Spin-Conserved and Spin-Encrypted Hologram using Multipolar-modulated Meta-platform. <i>Journal of Physics: Conference Series</i> , 2021, 2015, 012060.	0.4	5
33	Graphene-based Tunable Meta-absorber for Terahertz Applications. , 2021, , .		0
34	Ultra-black Pythagorean-tree metasurface antenna array based absorber and emitter for applications in solar thermophotovoltaics. , 2021, , .		3
35	White-light Polarization-insensitive Metasurface through All-dielectric Anisotropic Nanoresonators. , 2021, , .		1
36	Engineering spin and antiferromagnetic resonances to realize an efficient direction-multiplexed visible meta-hologram. <i>Nanoscale Horizons</i> , 2020, 5, 57-64.	8.0	68

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37	Space-Fractional Bessel Beams with Self-Healing and Diffraction-Free Propagation Characteristics. , 2020, , .		1
38	Facile and Cost Effective Paper Based Triboelectric Nanogenerators for Self Powered Environmental Sensing System. , 2020, , .		1
39	Diamond step-index nanowaveguide to structure light efficiently in near and deep ultraviolet regimes. Scientific Reports, 2020, 10, 18502.	3.3	14
40	Meta-Holographic Displays: Stimuli-Responsive Dynamic Metaholographic Displays with Designer Liquid Crystal Modulators (Adv. Mater. 50/2020). Advanced Materials, 2020, 32, 2070378.	21.0	4
41	Stimuli-Responsive Dynamic Metaholographic Displays with Designer Liquid Crystal Modulators. Advanced Materials, 2020, 32, e2004664.	21.0	116
42	Asymmetric Transmission through Single-Layered All-Dielectric Metasurface. , 2020, , .		2
43	Highly Efficient All-dielectric Metasurfaces for Airy Beam Generation in Visible Domain. , 2020, , .		6
44	EBG-based Sensor for Dielectric Characterization in Liquids. , 2020, , .		2
45	Optical Trapping of Nanoparticles Through Artificially-Engineered Flat Materials. , 2020, , .		1
46	Koch Fractal Based Wearable Antenna Backed with EBG Plane. , 2020, , .		7
47	Generalized Scaling Law for Exciton Binding Energy in Two-Dimensional Materials. Physical Review Applied, 2020, 13, .	3.8	14
48	A Low-Cost Multiple Complementary Split-Ring Resonator-Based Microwave Sensor for Contactless Dielectric Characterization of Liquids. IEEE Sensors Journal, 2020, 20, 11326-11334.	4.7	75
49	Engineering multimodal spectrum of Cayley tree fractal meta-resonator supercells for ultrabroadband terahertz light absorption. Nanophotonics, 2020, 9, 633-644.	6.0	19
50	Tungsten based optical absorber. , 2020, , .		4
51	Planar Achiral Metasurfaces-Induced Anomalous Chiroptical Effect of Optical Spin Isolation. ACS Applied Materials & Interfaces, 2020, 12, 48899-48909.	8.0	35
52	All-dielectric single-layered achiral structures for simultaneous conversion circular dichroism and wavefront engineering for visible light. , 2020, , .		3
53	Engineering multimodal dielectric resonance of TiO <sub>2</sub> based nanostructures for high-performance refractive index sensing applications. Optics Express, 2020, 28, 23509.	3.4	22
54	Engineering the absorption spectra of thin film multilayer absorbers for enhanced color purity in CMY color filters. Optical Materials Express, 2020, 10, 268.	3.0	29

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55	Breaking planar symmetries by a single layered metasurface for realizing unique on-chip chiroptical effects. <i>Optical Materials Express</i> , 2020, 10, 3342.	3.0	14
56	Breaking polarisation-bandwidth trade-off in dielectric metasurface for unpolarised white light. <i>Nanophotonics</i> , 2020, 9, 963-971.	6.0	16
57	A Pragmatic Metasurface with Asymmetric Spin Interactions. , 2020, , .		9
58	A Compact, Low-Profile Fractal Antenna for Wearable On-Body WBAN Applications. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2019, 18, 981-985.	4.0	184
59	High Efficiency Ultrathin Transmissive Metasurfaces. <i>Advanced Optical Materials</i> , 2019, 7, 1801628.	7.3	176
60	A Spin-Encoded All-Dielectric Metahologram for Visible Light. <i>Laser and Photonics Reviews</i> , 2019, 13, 1900065.	8.7	95
61	Design of a Fractal Metasurface Based Terahertz Broadband Absorber. , 2019, , .		2
62	Twisted non-diffracting beams through all dielectric meta-axicons. <i>Nanoscale</i> , 2019, 11, 20571-20578.	5.6	57
63	Highly efficient generation of Bessel beams with polarization insensitive metasurfaces. <i>Optics Express</i> , 2019, 27, 9467.	3.4	77
64	Biosensors for Identifying Hazardous Adulterants in Edibles. , 2019, , .		0
65	Plasmonic Spherical Heterodimers: Reversal of Optical Binding Force Based on the Forced Breaking of Symmetry. <i>Scientific Reports</i> , 2018, 8, 3164.	3.3	13
66	Tungsten-based Ultrathin Absorber for Visible Regime. <i>Scientific Reports</i> , 2018, 8, 2443.	3.3	96
67	Fabrication of high refractive index $TiO_2$ films using electron beam evaporator for all dielectric metasurfaces. <i>Materials Research Express</i> , 2018, 5, 016410.	1.6	8
68	Spiniform phase-encoded metagratings entangling arbitrary rational-order orbital angular momentum. <i>Light: Science and Applications</i> , 2018, 7, 17156-17156.	16.6	97
69	Ultra-Broadband Tungsten Absorber. , 2018, , .		1
70	Thermally robust ring-shaped chromium perfect absorber of visible light. <i>Nanophotonics</i> , 2018, 7, 1827-1833.	6.0	88
71	Highly Efficient Visible Hologram through Dielectric Metasurface. <i>Journal of Physics: Conference Series</i> , 2018, 1092, 012003.	0.4	9
72	Full-space Cloud of Random Points with a Scrambling Metasurface. <i>Light: Science and Applications</i> , 2018, 7, 63.	16.6	112

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73	Polarisation insensitive multifunctional metasurfaces based on all-dielectric nanowaveguides. <i>Nanoscale</i> , 2018, 10, 18323-18330.	5.6	98
74	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. <i>Scientific Reports</i> , 2018, 8, 10639.	3.3	59
75	Dielectric Meta-Holograms Enabled with Dual Magnetic Resonances in Visible Light. <i>ACS Nano</i> , 2017, 11, 9382-9389.	14.6	157
76	High Refractive Index Ti <sub>3</sub> O <sub>5</sub> Films for Dielectric Metasurfaces. <i>Chinese Physics Letters</i> , 2017, 34, 088102.	3.3	7
77	Lorentz force and the optical pulling of multiple rayleigh particles outside the dielectric cylindrical waveguides. <i>Annalen Der Physik</i> , 2017, 529, 1600213.	2.4	8
78	Dual field-of-view step-zoom metalens. <i>Optics Letters</i> , 2017, 42, 1261.	3.3	48
79	Visible-Frequency Metasurface for Structuring and Spatially Multiplexing Optical Vortices. <i>Advanced Materials</i> , 2016, 28, 2533-2539.	21.0	387
80	Evanescent vortex: Optical subwavelength spanner. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	20
81	Shaping 3D Path of Electromagnetic Waves Using Gradient-Refractive-Index Metamaterials. <i>Advanced Science</i> , 2016, 3, 1600022.	11.2	26
82	Flat Helical Nanosieves. <i>Advanced Functional Materials</i> , 2016, 26, 5255-5262.	14.9	64
83	On-chip discrimination of orbital angular momentum of light with plasmonic nanoslits. <i>Nanoscale</i> , 2016, 8, 2227-2233.	5.6	76
84	Longitudinal Multifoci Metalens for Circularly Polarized Light. <i>Advanced Optical Materials</i> , 2015, 3, 1201-1206.	7.3	203
85	Broadband spin-controlled focusing via logarithmic-spiral nanoslits of varying width. <i>Laser and Photonics Reviews</i> , 2015, 9, 674-681.	8.7	17
86	Switchable Ultrathin Quarter-wave Plate in Terahertz Using Active Phase-change Metasurface. <i>Scientific Reports</i> , 2015, 5, 15020.	3.3	238
87	ISAR Cross-Range Scaling by Using Sharpness Maximization. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2015, 12, 165-169.	3.1	56
88	Twisted Focusing of Optical Vortices with Broadband Flat Spiral Zone Plates. <i>Advanced Optical Materials</i> , 2014, 2, 1193-1198.	7.3	50
89	Focusing of electromagnetic field by a circular reflector coated with chiral medium. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2012, 38, 181-193.	0.6	12
90	Analysis of caustic region fields of a cassegrain system having PEMC reflectors embedded in homogeneous chiral medium. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2012, 38, 39-45.	0.6	7

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91	ANALYSIS OF THE FIELD FOCUSED BY HYPERBOLIC LENS EMBEDDED IN CHIRAL MEDIUM. Progress in Electromagnetics Research M, 2011, 20, 43-56.	0.9	6
92	CAUSTIC REGION FIELDS OF A 3D CASSEGRAIN SYSTEM PLACED IN BI-ISOTROPIC HOMOGENEOUS CHIRAL MEDIUM. Progress in Electromagnetics Research M, 2011, 20, 191-205.	0.9	0
93	ANALYSIS OF FOCAL REGION FIELDS OF PEMC GREGORIAN SYSTEM EMBEDDED IN HOMOGENEOUS CHIRAL MEDIUM. Progress in Electromagnetics Research Letters, 2010, 18, 155-163.	0.7	7
94	FOCAL REGION FIELDS OF GREGORIAN SYSTEM PLACED IN HOMOGENEOUS CHIRAL MEDIUM. Progress in Electromagnetics Research M, 2010, 11, 241-256.	0.9	6
95	FOCAL REGION FIELDS OF CASSEGRAIN SYSTEM PLACED IN HOMOGENEOUS CHIRAL MEDIUM. Progress in Electromagnetics Research B, 2010, 21, 329-346.	1.0	0