

# Mirbek Turduev

## List of Publications by Year in descending order

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Version: 2024-02-01

82  
papers

767  
citations

471371

17  
h-index

580701

25  
g-index

82  
all docs

82  
docs citations

82  
times ranked

651  
citing authors

#	ARTICLE	IF	CITATIONS
1	Inverse design of ultra-compact photonic gates for all-optical logic operations. Journal Physics D: Applied Physics, 2022, 55, 215107.	1.3	10
2	Nanostructured Multilayer Coatings for Spatial Filtering. Advanced Optical Materials, 2021, 9, 2001730.	3.6	11
3	Ultra-compact, high-numerical-aperture achromatic multilevel diffractive lens via metaheuristic approach. Photonics Research, 2021, 9, 2095.	3.4	2
4	Numerical and experimental demonstration of inverse designed low-index polarization-insensitive wavelength demultiplexer. Journal Physics D: Applied Physics, 2021, 54, 505102.	1.3	1
5	Fabry-Pérot Microtube Cavity Structure for Optical Sensing at Mid-infrared Spectrum. IEEE Sensors Journal, 2020, 20, 2390-2397.	2.4	4
6	Inverse design of all-dielectric parallel-plane mirror optical resonator. Photonics and Nanostructures - Fundamentals and Applications, 2020, 40, 100787.	1.0	2
7	Compact and Fabrication-Tolerant Waveguide Bends Based on Quadratic Reflectors. Journal of Lightwave Technology, 2020, 38, 4368-4373.	2.7	12
8	Direct laser writing of optical field concentrators based on chirped three-dimensional photonic crystals. , 2020, , .		1
9	Rainbow trapping in a tapered photonic crystal waveguide and its application in wavelength demultiplexing effect. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1249.	0.9	6
10	Demonstration of carpet cloaking by an anisotropic zero refractive index medium. Optics Letters, 2020, 45, 2423.	1.7	10
11	Compact and Fabrication-Tolerant Single-Mode Polymer Waveguide Bends. , 2020, , .		0
12	Zones optimized multilevel diffractive lens for polarization-insensitive light focusing. Journal Physics D: Applied Physics, 2020, 53, 495109.	1.3	4
13	Optical films based angular filters for microlasers. , 2020, , .		0
14	Metaheuristic approach enabled mode order conversion in photonic crystals: numerical design and experimental realization. Journal of Optics (United Kingdom), 2019, 21, 085801.	1.0	2
15	Transmission Enhanced Wavelength Demultiplexer Design Based on Photonic Crystal Waveguide with Gradually Varied Width. , 2019, , .		1
16	Photonic Crystal Spatial Filters Fabricated by Physical Vapour Deposition. , 2019, , .		0
17	Photonic Wavy Structures for Angular Filtering of Light. , 2019, , .		0
18	Active beam steering and afocal zooming by nematic liquid crystal-infiltrated graded index photonic structures. Journal Physics D: Applied Physics, 2019, 52, 335102.	1.3	3

#	ARTICLE	IF	CITATIONS
19	Analytical, numerical, and experimental investigation of a Luneburg lens system for directional cloaking. <i>Physical Review A</i> , 2019, 99, .	1.0	11
20	Angular filtering by Bragg photonic microstructures fabricated by physical vapour deposition. <i>Applied Surface Science</i> , 2019, 481, 353-359.	3.1	17
21	A Broadband Polarization-Insensitive Diffractive Lens Design for Subwavelength Focusing of Light. , 2019, , .		2
22	Genetically Optimized Design of Ultra-Compact and Highly Efficient Waveguide Crossing, Optical Attenuator and Reflector. , 2019, , .		0
23	Hyperbolic Secant Graded Index Photonic Crystal Flat Lens for Subwavelength Focusing of Light. , 2019, , .		0
24	Photonic Crystal Rectangular Hole Based Nanobeam Cavity Refractive Index Sensor. , 2019, , .		0
25	Direct laser writing of optical field concentrators based on chirped three-dimensional photonic crystals. , 2019, , .		1
26	Ultracompact Photonic Structure Design for Strong Light Confinement and Coupling Into Nanowaveguide. <i>Journal of Lightwave Technology</i> , 2018, 36, 2812-2819.	2.7	34
27	Directional Cloaking by Quadruple Luneburg Lens System. , 2018, , .		0
28	Optimization of Epsilon-and-mu-near-zero Refractive Index Photonic Structure to Design Unidirectional Transmission Device. , 2018, , .		0
29	All Dielectric Mode Order Transformation Photonic Structure Design by Evolutionary Optimization Approach. , 2018, , .		1
30	Directional Invisibility of Elliptical Shaped All Dielectric Structure Induced by Evolutionary Optimization Approach. , 2018, , .		0
31	Asymmetric light transmission effect based on an evolutionary optimized semi-Dirac cone dispersion photonic structure. <i>Physical Review B</i> , 2018, 98, .	1.1	18
32	Enhanced superprism effect in symmetry reduced photonic crystals. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	7
33	Full utilization of semi-Dirac cones in photonics. <i>Physical Review B</i> , 2018, 97, .	1.1	13
34	Integrated silicon photonic device design by attractor selection mechanism based on artificial neural networks: optical coupler and asymmetric light transmitter. <i>Optics Express</i> , 2018, 26, 29032.	1.7	17
35	Directional invisibility by genetic optimization. <i>Optics Letters</i> , 2018, 43, 5781.	1.7	19
36	High Extinction Ratio Polarization Beam Splitter Design by Low-Symmetric Photonic Crystals. <i>Journal of Lightwave Technology</i> , 2017, 35, 1677-1683.	2.7	33

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37	Nanostructures for highly efficient infrared detection. Proceedings of SPIE, 2017, , .	0.8	0
38	Mid-infrared T-shaped photonic crystal waveguide for optical refractive index sensing. Sensors and Actuators B: Chemical, 2017, 245, 765-773.	4.0	44
39	Enhanced cavity-waveguide interaction in three-dimensional photonic crystals. , 2017, , .		0
40	Photonic crystal based polarization insensitive flat lens. Journal Physics D: Applied Physics, 2017, 50, 275105.	1.3	8
41	Stopped microwave-rainbow in 3D chirped photonic crystals. , 2017, , .		1
42	Laser nanolithography and pyrolysis of SZ2080 hybrid for slowing light in 3D photonic crystals. , 2017, , .		3
43	Theoretical and experimental investigations of efficient light coupling with spatially varied all dielectric striped waveguides. Journal of Applied Physics, 2017, 122, 033101.	1.1	1
44	Design and analysis of all-dielectric subwavelength focusing flat lens. Journal Physics D: Applied Physics, 2017, 50, 38LT02.	1.3	4
45	Non-diffraction Bloch modes in low-symmetric photonic crystals. , 2017, , .		0
46	Polarization splitting phenomenon of photonic crystals constructed by two-fold rotationally symmetric unit-cells. Journal of Optics (United Kingdom), 2017, 19, 095005.	1.0	7
47	Focusing of light beyond the diffraction limit by randomly distributed graded index photonic medium. Journal of Applied Physics, 2016, 120, 243102.	1.1	9
48	Differential evolution algorithm based photonic structure design: numerical and experimental verification of subwavelength $\lambda/5$ focusing of light. Scientific Reports, 2016, 6, 30871.	1.6	29
49	Slow light enabled wavelength demultiplexing. , 2016, , .		0
50	Photonic crystal sub-wavelength $\lambda/5$ focusing lens design using optimization method. , 2016, , .		0
51	T-shape slotted photonic crystal based sensor with high sensitivity. , 2016, , .		1
52	Polarization independent focusing of light by gradually modulated annular photonic structure. , 2016, , .		0
53	Numerical and experimental demonstration of a wavelength demultiplexer design by point-defect cavity coupled to a tapered photonic crystal waveguide. Optics Letters, 2016, 41, 119.	1.7	15
54	Chiral Modes in 2D PT-Symmetric Nanostructures. Springer Proceedings in Physics, 2016, , 125-138.	0.1	0

#	ARTICLE	IF	CITATIONS
55	Self-collimation in 2D complex and PT-symmetric media. , 2015, , .		0
56	Penrose type graded photonic quasi-crystal for light manipulation. , 2015, , .		1
57	Two-dimensional complex parity-time-symmetric photonic structures. Physical Review A, 2015, 91, .	1.0	48
58	Sub-wavelength light focusing with random photonic medium. , 2015, , .		0
59	Tunable wavelength-demultiplexer by tapered photonic crystal waveguide. , 2015, , .		0
60	Design of flat lens-like graded index medium by photonic crystals: Exploring both low and high frequency regimes. Optics Communications, 2015, 339, 22-33.	1.0	26
61	Asymmetric light transmission by using 2D PT-symmetric photonic nanostructure. , 2014, , .		0
62	Compact rainbow trapping and demultiplexing by photonic crystal waveguides. , 2014, , .		1
63	Theoretical and experimental investigations of asymmetric light transport in graded index photonic crystal waveguides. Applied Physics Letters, 2014, 104, 031116.	1.5	21
64	Experimental studies on chemical concentration map building by a multi-robot system using bio-inspired algorithms. Autonomous Agents and Multi-Agent Systems, 2014, 28, 72-100.	1.3	46
65	Asymmetric transmission from a 2D PT-symmetric honeycomb nanostructure. , 2014, , .		0
66	Extraordinary wavelength dependence of self-collimation effect in photonic crystal with low structural symmetry. Photonics and Nanostructures - Fundamentals and Applications, 2013, 11, 241-252.	1.0	15
67	Broadband super-collimation with low-symmetric photonic crystal. Photonics and Nanostructures - Fundamentals and Applications, 2013, 11, 132-138.	1.0	12
68	Design of a Wavelength Selective Medium by Graded Index Photonic Crystals. IEEE Journal of Quantum Electronics, 2013, 49, 477-484.	1.0	16
69	Efficient mode-order conversion using a photonic crystal structure with low symmetry. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 3086.	0.9	11
70	Efficient mode converter design using asymmetric graded index photonic structures. Optics Letters, 2013, 38, 220.	1.7	30
71	Mode transformation using graded photonic crystals with axial asymmetry. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1569.	0.9	22
72	High-efficiency beam bending using graded photonic crystals. Optics Letters, 2013, 38, 1688.	1.7	28

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73	Modified annular photonic crystals with enhanced dispersion relations: polarization insensitive self-collimation and nanophotonic wire waveguide designs. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1589.	0.9	26
74	Crescent shaped dielectric periodic structure for light manipulation. Optics Express, 2012, 20, 7184.	1.7	20
75	Generation of a two-dimensional limited-diffraction beam with self-healing ability by annular-type photonic crystals. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1245.	0.9	13
76	Polarization insensitive photonic devices: Waveguides, splitter, and sharp bends. , 2012, , .		1
77	Modified Maxwell fish-eye approach for efficient coupler design by graded photonic crystals. Optics Express, 2012, 20, 22018.	1.7	21
78	Manipulating of light propagation using crescent-shaped photonic crystals. , 2011, , .		0
79	Two-dimensional quasi-bessel beam creation. , 2011, , .		0
80	Chemical concentration map building through bacterial foraging optimization based search algorithm by mobile robots. , 2010, , .		6
81	Cooperative chemical concentration map building using Decentralized Asynchronous Particle Swarm Optimization based search by mobile robots. , 2010, , .		18
82	Reduced symmetry and analogy to chirality in periodic dielectric media. Journal of the European Optical Society-Rapid Publications, 0, 9, .	0.9	21