Mirbek Turduev

List of Publications by Year
in descending order

82	767	471371 17	580701 25
papers	citations	h-index	g-index

82	82	82	651
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Two-dimensional complex parity-time-symmetric photonic structures. Physical Review A, 2015, 91, .	1.0	48
2	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
3	Mid-infrared T-shaped photonic crystal waveguide for optical refractive index sensing. Sensors and Actuators B: Chemical, 2017, 245, 765-773.	4.0	44
4	Ultracompact Photonic Structure Design for Strong Light Confinement and Coupling Into Nanowaveguide. Journal of Lightwave Technology, 2018, 36, 2812-2819.	2.7	34
5	High Extinction Ratio Polarization Beam Splitter Design by Low-Symmetric Photonic Crystals. Journal of Lightwave Technology, 2017, 35, 1677-1683.	2.7	33
6	Efficient mode converter design using asymmetric graded index photonic structures. Optics Letters, 2013, 38, 220.	1.7	30
7	Differential evolution algorithm based photonic structure design: numerical and experimental verification of subwavelength Î»/5 focusing of light. Scientific Reports, 2016, 6, 30871.	1.6	29
8	High-efficiency beam bending using graded photonic crystals. Optics Letters, 2013, 38, 1688.	1.7	28
9	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
10	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
11	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
12	Modified Maxwell fish-eye approach for efficient coupler design by graded photonic crystals. Optics Express, 2012, 20, 22018.	1.7	21
13	Reduced symmetry and analogy to chirality in periodic dielectric media. Journal of the European Optical Society-Rapid Publications, 0, 9, .	0.9	21
14	Theoretical and experimental investigations of asymmetric light transport in graded index photonic crystal waveguides. Applied Physics Letters, 2014, 104, 031116.	1.5	21
15	Crescent shaped dielectric periodic structure for light manipulation. Optics Express, 2012, 20, 7184.	1.7	20
16	Directional invisibility by genetic optimization. Optics Letters, 2018, 43, 5781.	1.7	19
17	Cooperative chemical concentration map building using Decentralized Asynchronous Particle Swarm Optimization based search by mobile robots. , 2010, , .		18
18	Asymmetric light transmission effect based on an evolutionary optimized semi-Dirac cone dispersion photonic structure. Physical Review B, 2018, 98, .	1.1	18

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19	Angular filtering by Bragg photonic microstructures fabricated by physical vapour deposition. Applied Surface Science, 2019, 481, 353-359.	3.1	17
20	Integrated silicon photonic device design by attractor selection mechanism based on artificial neural networks: optical coupler and asymmetric light transmitter. Optics Express, 2018, 26, 29032.	1.7	17
21	Design of a Wavelength Selective Medium by Graded Index Photonic Crystals. IEEE Journal of Quantum Electronics, 2013, 49, 477-484.	1.0	16
22	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
23	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
24	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
25	Full utilization of semi-Dirac cones in photonics. Physical Review B, 2018, 97, .	1.1	13
26	Broadband super-collimation with low-symmetric photonic crystal. Photonics and Nanostructures - Fundamentals and Applications, 2013, 11, 132-138.	1.0	12
27	Compact and Fabrication-Tolerant Waveguide Bends Based on Quadratic Reflectors. Journal of Lightwave Technology, 2020, 38, 4368-4373.	2.7	12
28	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
29	Analytical, numerical, and experimental investigation of a Luneburg lens system for directional cloaking. Physical Review A, 2019, 99, .	1.0	11
30	Nanostructured Multilayer Coatings for Spatial Filtering. Advanced Optical Materials, 2021, 9, 2001730.	3.6	11
31	Demonstration of carpet cloaking by an anisotropic zero refractive index medium. Optics Letters, 2020, 45, 2423.	1.7	10
32	Inverse design of ultra-compact photonic gates for all-optical logic operations. Journal Physics D: Applied Physics, 2022, 55, 215107.	1.3	10
33	Focusing of light beyond the diffraction limit by randomly distributed graded index photonic medium. Journal of Applied Physics, 2016, 120, 243102.	1.1	9
34	Photonic crystal based polarization insensitive flat lens. Journal Physics D: Applied Physics, 2017, 50, 275105.	1.3	8
35	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
36	Enhanced superprism effect in symmetry reduced photonic crystals. Applied Physics Letters, 2018, 113, .	1.5	7

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37	Chemical concentration map building through bacterial foraging optimization based search algorithm by mobile robots. , 2010, , .		6
38	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
39	Design and analysis of all-dielectric subwavelength focusing flat lens. Journal Physics D: Applied Physics, 2017, 50, 38LT02.	1.3	4
40	Fabryâ€“PÃ©rot Microtube Cavity Structure for Optical Sensing at Mid-infrared Spectrum. IEEE Sensors Journal, 2020, 20, 2390-2397.	2.4	4
41	Zones optimized multilevel diffractive lens for polarization-insensitive light focusing. Journal Physics D: Applied Physics, 2020, 53, 495109.	1.3	4
42	Laser nanolithography and pyrolysis of SZ2080 hybrid for slowing light in 3D photonic crystals. , 2017, , .		3
43	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
44	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
45	A Broadband Polarization-Insensitive Diffractive Lens Design for Subwavelength Focusing of Light. , 2019, , .		2
46	Inverse design of all-dielectric parallel-plane mirror optical resonator. Photonics and Nanostructures - Fundamentals and Applications, 2020, 40, 100787.	1.0	2
47	Ultra-compact, high-numerical-aperture achromatic multilevel diffractive lens via metaheuristic approach. Photonics Research, 2021, 9, 2095.	3.4	2
48	Polarization insensitive photonic devices: Waveguides, splitter, and sharp bends. , 2012, , .		1
49	Compact rainbow trapping and demultiplexing by photonic crystal waveguides. , 2014, , .		1
50	Penrose type graded photonic quasi-crystal for light manipulation. , 2015, , .		1
51	T-shape slotted photonic crystal based sensor with high sensitivity. , 2016, , .		1
52	Stopped microwave-rainbow in 3D chirped photonic crystals. , 2017, , .		1
53	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
54	All Dielectric Mode Order Transformation Photonic Structure Design by Evolutionary Optimization Approach. , 2018, , .		1

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55	Transmission Enhanced Wavelength Demultiplexer Design Based on Photonic Crystal Waveguide with Gradually Varied Width. , 2019, , .		1
56	Numerical and experimental demonstration of inverse designed low-index polarization-insensitive wavelength demultiplexer. Journal Physics D: Applied Physics, 2021, 54, 505102.	1.3	1
57	Direct laser writing of optical field concentrators based on chirped three-dimensional photonic crystals. , 2020, , .		1
58	Direct laser writing of optical field concentrators based on chirped three-dimensional photonic crystals. , 2019, , .		1
59	Manipulating of light propagation using crescent-shaped photonic crystals. , 2011, , .		0
60	Two-dimensional quasi-bessel beam creation. , 2011, , .		0
61	Asymmetric light transmission by using 2D PT-symmetric photonic nanostructure. , 2014, , .		0
62	Asymmetric transmission from a 2D PT-symmetric honeycomb nanostructure. , 2014, , .		0
63	Self-collimation in 2D complex and PT-symmetric media. , 2015, , .		0
64	Sub-wavelength light focusing with random photonic medium. , 2015, , .		0
65	Tunable wavelength-demultiplexer by tapered photonic crystal waveguide. , 2015, , .		0
66	Slow light enabled wavelength demultiplexing. , 2016, , .		0
67	Photonic crystal sub-wavelength Î»/5 focusing lens design using optimization method. , 2016, , .		0
68	Polarization independent focusing of light by gradually modulated annular photonic structure. , 2016, , .		0
69	Chiral Modes in 2D PT-Symmetric Nanostructures. Springer Proceedings in Physics, 2016, , 125-138.	0.1	0
70	Nanostructures for highly efficient infrared detection. Proceedings of SPIE, 2017, , .	0.8	0
71	Enhanced cavity-waveguide interaction in three-dimensional photonic crystals. , 2017, , .		0
72	Non-diffraction Bloch modes in low-symmetric photonic crystals. , 2017, , .		0

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73	Directional Cloaking by Quadruple Luneburg Lens System. , 2018, , .		0
74	Optimization of Epsilon-and-mu-near-zero Refractive Index Photonic Structure to Design Unidirectional Transmission Device. , 2018, , .		0
75	Directional Invisibility of Elliptical Shaped All Dielectric Structure Induced by Evolutionary Optimization Approach. , 2018, , .		0
76	Photonic Crystal Spatial Filters Fabricated by Physical Vapour Deposition. , 2019, , .		0
77	Photonic Wavy Structures for Angular Filtering of Light. , 2019, , .		0
78	Genetically Optimized Design of Ultra-Compact and Highly Efficient Waveguide Crossing, Optical Attenuator and Reflector. , 2019, , .		0
79	Hyperbolic Secant Graded Index Photonic Crystal Flat Lens for Subwavelength Focusing of Light. , 2019, , .		0
80	Photonic Crystal Rectangular Hole Based Nanobeam Cavity Refractive Index Sensor. , 2019, , .		0
81	Compact and Fabrication-Tolerant Single-Mode Polymer Waveguide Bends. , 2020, , .		0
82	Optical films based angular filters for microlasers. , 2020, , .		0