Svetlana N Khonina

List of Publications by Year
in descending order

479	10,326	41323	85498
papers	citations	49 h-index	71 g-index

491	491	491	2959
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Phase Rotor Filter. Journal of Modern Optics, 1992, 39, 1147-1154.	0.6	294
2	Generation of phase singularity through diffracting a plane or Gaussian beam by a spiral phase plate. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 849.	0.8	278
3	Polarization conversion when focusing cylindrically polarized vortex beams. Scientific Reports, 2016, 6, 6.	1.6	244
4	Plasmonic sensors based on Metal-insulator-metal waveguides for refractive index sensing applications: A brief review. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 117, 113798.	1.3	158
5	Hypergeometric modes. Optics Letters, 2007, 32, 742.	1.7	116
6	Direct laser printing of chiral plasmonic nanojets by vortex beams. Optics Express, 2017, 25, 10214.	1.7	116
7	Vortex beams in turbulent media: review. Computer Optics, 2016, 40, 605-624.	1.3	110
8	Bessel Beam: Significance and Applicationsâ€”A Progressive Review. Micromachines, 2020, 11, 997.	1.4	101
9	An analysis of the angular momentum of a light field in terms of angular harmonics. Journal of Modern Optics, 2001, 48, 1543-1557.	0.6	95
10	Diffraction of a plane, finite-radius wave by a spiral phase plate. Optics Letters, 2006, 31, 1597.	1.7	88
11	Plasmonic refractive index sensor based on metalâ€“insulator-metal waveguides with high sensitivity. Journal of Modern Optics, 2019, 66, 1038-1043.	0.6	88
12	Trochoson. Optics Communications, 1992, 91, 158-162.	1.0	85
13	Elliptic Laguerre-Gaussian beams. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 43.	0.8	82
14	Hybrid plasmonic waveguide-assisted Metalâ€“Insulatorâ€“Metal ring resonator for refractive index sensing. Journal of Modern Optics, 2018, 65, 1135-1140.	0.6	79
15	Vortex phase transmission function as a factor to reduce the focal spot of high-aperture focusing system. Journal of Modern Optics, 2011, 58, 748-760.	0.6	78
16	Recent advances in photonic crystal optical devices: A review. Optics and Laser Technology, 2021, 142, 107265.	2.2	78
17	Vortex phase elements as detectors of polarization state. Optics Express, 2015, 23, 17845.	1.7	74
18	Gaussâ€“Laguerre modes with different indices in prescribed diffraction orders of a diffractive phase element. Optics Communications, 2000, 175, 301-308.	1.0	71

#	Article	IF	Citations
19	Rotation of laser beams with zero of the orbital angular momentum. Optics Communications, 2007, 274, 8-14.	1.0	70
20	An algorithm for the generation of laser beams with longitudinal periodicity: Rotating images. Journal of Modern Optics, 1997, 44, 1409-1416.	0.6	68
21	Light field decomposition in angular harmonics by means of diffractive optics. Journal of Modern Optics, 1998, 45, 1495-1506.	0.6	68
22	Controlling the contribution of the electric field components to the focus of a high-aperture lens using binary phase structures. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 2188.	0.8	68
23	Study of propagation of vortex beams in aerosol optical medium. Applied Optics, 2017, 56, E8.	2.1	68
24	Simple phase optical elements for narrowing of a focal spot in high-numerical-aperture conditions. Optical Engineering, 2013, 52, 091711.	0.5	67
25	Use of photonic crystal cavities for temporal differentiation of optical signals. Optics Letters, 2013, 38, 1149.	1.7	65
26	Generation of cylindrical vector beams of high orders using uniaxial crystals. Journal of Optics (United Kingdom), 2015, 17, 065001.	1.0	65
27	Silicon on silicon dioxide slot waveguide evanescent field gas absorption sensor. Journal of Modern Optics, 2018, 65, 174-178.	0.6	65
28	Rotation of microparticles with Bessel beams generated by diffractive elements. Journal of Modern Optics, 2004, 51, 2167-2184.	0.6	64
29	The lensacon: nonparaxial effects. Journal of Optical Technology (A Translation of Opticheskii) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.2	63
30	Generation and selection of laser beams represented by a superposition of two angular harmonics. Journal of Modern Optics, 2004, 51, 761-773.	0.6	62
31	Specular and vortical Airy beams. Optics Communications, 2011, 284, 4263-4271.	1.0	62
32	Experimental demonstration of the generation of the longitudinalE-field component on the optical axis with high-numerical-aperture binary axicons illuminated by linearly and circularly polarized beams. Journal of Optics (United Kingdom), 2013, 15, 085704.	1.0	62
33	Fibre sensors based on transverse mode selection. Journal of Modern Optics, 2007, 54, 833-844.	0.6	61
34	Strengthening the longitudinal component of the sharply focused electric field by means of higher-order laser beams. Optics Letters, 2013, 38, 3223.	1.7	61
35	A technique for simultaneous detection of individual vortex states of Laguerreâ€“Gaussian beams transmitted through an aqueous suspension of microparticles. Optics and Lasers in Engineering, 2018, 105, 68-74.	2.0	61
36	On-Fly Femtosecond-Laser Fabrication of Self-Organized Plasmonic Nanotextures for Chemo- and Biosensing Applications. ACS Applied Materials & Interfaces, 2016, 8, 24946-24955.	4.0	58

#	Article	IF	Citations
37	Carbon Dioxide Gas Sensor Based on Polyhexamethylene Biguanide Polymer Deposited on Silicon Nano-Cylinders Metasurface. Sensors, 2021, 21, 378.	2.1	58
38	Chirality of laser-printed plasmonic nanoneedles tunable by tailoring spiral-shape pulses. Applied Surface Science, 2019, 470, 526-534.	3.1	57
39	Encoded binary diffractive element to form hyper-geometric laser beams. Journal of Optics, 2009, 11, 065702.	1.5	56
40	Rotating optical fields. Journal of Modern Optics, 1998, 45, 2355-2369.	0.6	55
41	Influence of vortex transmission phase function on intensity distribution in the focal area of high-aperture focusing system. Optical Memory and Neural Networks (Information Optics), 2011, 20, 23-42.	0.4	55
42	High-aperture binary axicons for the formation of the longitudinal electric field component on the optical axis for linear and circular polarizations of the illuminating beam. Journal of Experimental and Theoretical Physics, 2013, 117, 623-630.	0.2	54
43	Optimization of focusing of linearly polarized light. Optics Letters, 2011, 36, 352.	1.7	53
44	Generation of rotating gaussâ€”Laguerre modes with binary-phase diffractive optics. Journal of Modern Optics, 1999, 46, 227-238.	0.6	52
45	Astigmatic bessel laser beams. Journal of Modern Optics, 2004, 51, 677-686.	0.6	52
46	An evanescent field absorption gas sensor at mid-IR 3.39ÂÎ¼m wavelength. Journal of Modern Optics, 2017, 64, 1892-1897.	0.6	52
47	Plasmonics: A Necessity in the Field of Sensing-A Review (Invited). Fiber and Integrated Optics, 2021, 40, 14-47.	1.7	52
48	Modern Types of Axicons: New Functions and Applications. Sensors, 2021, 21, 6690.	2.1	52
49	Highly Sensitive Refractive Index Sensor Based on Plasmonic Bow Tie Configuration. Photonic Sensors, 2020, 10, 223-232.	2.5	51
50	Multi-beam pulsed-laser patterning of plasmonic films using broadband diffractive optical elements. Optics Letters, 2017, 42, 2838.	1.7	50
51	Diffractive optical elements for multiplexing structured laser beams. Quantum Electronics, 2020, 50, 629-635.	0.3	50
52	How low can STED go? Comparison of different write-erase beam combinations for stimulated emission depletion microscopy. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 2242.	0.8	49
53	Engineering the smallest 3D symmetrical bright and dark focal spots. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 2029.	0.8	49
54	Algorithm for the Generation of Non-diffracting Bessel Modes. Journal of Modern Optics, 1995, 42, 1231-1239.	0.6	48

#	Article	IF	Citations
55	Diffraction of conic and Gaussian beams by a spiral phase plate. Applied Optics, 2006, 45, 2656.	2.1	48
56	Enlightening darkness to diffraction limit and beyond: comparison and optimization of different polarizations for dark spot generation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 1470.	0.8	48
57	Effective transformation of a zero-order Bessel beam into a second-order vortex beam using a uniaxial crystal. Laser Physics, 2014, 24, 056101.	0.6	48
58	Highly sensitive refractive index sensor based on hybrid plasmonic waveguide microring resonator. Waves in Random and Complex Media, 2020, 30, 292-299.	1.6	48
59	An array of nano-dots loaded MIM square ring resonator with enhanced sensitivity at NIR wavelength range. Optik, 2020, 202, 163655.	1.4	48
60	Fractional Airy beams. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1991.	0.8	47
61	Subwavelength Grating Double Slot Waveguide Racetrack Ring Resonator for Refractive Index Sensing Application. Sensors, 2020, 20, 3416.	2.1	47
62	Metal-insulator-metal nano square ring resonator for gas sensing applications. Waves in Random and Complex Media, 2021, 31, 146-156.	1.6	46
63	Recent Advances in Generation and Detection of Orbital Angular Momentum Optical Beamsâ€"A Review. Sensors, 2021, 21, 4988.	2.1	46
64	Modeling action of a hyperspectrometer based on the offner scheme within geometric optics. Computer Optics, 2014, 38, 271-280.	1.3	45
65	Calculation of the Focusators into a Longitudinal Line-segment and Study of a Focal Area. Journal of Modern Optics, 1993, 40, 761-769.	0.6	44
66	Nanodots decorated MIM semi-ring resonator cavity for biochemical sensing applications. Photonics and Nanostructures - Fundamentals and Applications, 2020, 42, 100836.	1.0	44
67	Properties of vortex light fields generated by generalized spiral phase plates. Physical Review A, 2020, 101, .	1.0	44
68	Sudden autofocusing of superlinear chirp beams. Journal of Optics (United Kingdom), 2018, 20, 025605.	1.0	43
69	Simulation of hyperspectrometer on spectral linear variable filters. Computer Optics, 2014, 38, 256-270.	1.3	43
70	Generating hypergeometric laser beams with a diffractive optical element. Applied Optics, 2008, 47, 6124.	2.1	42
71	Diffraction at binary microaxicons in the near field. Journal of Optical Technology (A Translation of) Tj ETQq1 1 0.784314 rgBT /Overlo	0.2	42
72	Polarization converter for higher-order laser beams using a single binary diffractive optical element as beam splitter. Optics Letters, 2012, 37, 2385.	1.7	42

#	Article	IF	Citations
73	Polarization conversion under focusing of vortex laser beams along the axis of anisotropic crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2444-2455.	0.9	42
74	Formation of hybrid higher-order cylindrical vector beams using binary multi-sector phase plates. Scientific Reports, 2018, 8, 14320.	1.6	42
75	Silicon photonic devices realized on refractive index engineered subwavelength grating waveguides-A review. Optics and Laser Technology, 2021, 138, 106863.	2.2	42
76	Formation of images using multilevel diffractive lens. Computer Optics, 2014, 38, 425-434.	1.3	42
77	Analysis of wave aberration influence on reducing focal spot size in a high-aperture focusing system. Journal of Optics (United Kingdom), 2011, 13, 095702.	1.0	41
78	Narrowing of a light spot at diffraction of linearly-polarized beam on binary asymmetric axicons. Optical Memory and Neural Networks (Information Optics), 2012, 21, 17-26.	0.4	41
79	Evanescent Field Ratio Enhancement of a Modified Ridge Waveguide Structure for Methane Gas Sensing Application. IEEE Sensors Journal, 2020, 20, 8469-8476.	2.4	40
80	Photonic nanohelix generated by a binary spiral axicon. Applied Optics, 2016, 55, B44.	0.9	39
81	Plasmonic sensor based on metal-insulator-metal waveguide square ring cavity filled with functional material for the detection of CO₂ gas. Optics Express, 2021, 29, 16584.	1.7	39
82	Achievements in the development of plasmonic waveguide sensors for measuring the refractive index. Computer Optics, 2020, 44, .	1.3	39
83	Zero-orbital-angular-momentum laser printing of chiral nanoneedles. Optics Letters, 2017, 42, 5022.	1.7	38
84	Inverse energy flux of focused radially polarized optical beams. Physical Review A, 2018, 98, .	1.0	38
85	Aberration laser beams with autofocusing properties. Applied Optics, 2018, 57, 1410.	0.9	38
86	Sublinearly chirped metalenses for forming abruptly autofocusing cylindrically polarized beams. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1963.	0.9	38
87	Vortex beams with high-order cylindrical polarization: features of focal distributions. Applied Physics B: Lasers and Optics, 2019, 125, 1.	1.1	38
88	Recognition of polarization and phase states of light based on the interaction of non-uniformly polarized laser beams with singular phase structures. Optics Express, 2019, 27, 18484.	1.7	38
89	Spectral control of the orbital angular momentum of a laser beam based on 3D properties of spiral phase plates fabricated for an infrared wavelength. Optics Express, 2020, 28, 18407.	1.7	38
90	Focused, evanescent, hollow, and collimated beams formed by microaxicons with different conical angles. Optics Express, 2017, 25, 19052.	1.7	37

#	Article	IF	Citations
91	Generalized parabolic nondiffracting beams of two orders. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 1511.	0.8	37
92	Highly integrated plasmonic sensor design for the simultaneous detection of multiple analytes. Current Applied Physics, 2020, 20, 1274-1280.	1.1	37
93	A Numerical Investigation of a Plasmonic Sensor Based on a Metal-Insulator-Metal Waveguide for Simultaneous Detection of Biological Analytes and Ambient Temperature. Nanomaterials, 2021, 11, 2551.	1.9	37
94	Characteristics of sharp focusing of vortex Laguerre-Gaussian beams. Computer Optics, 2015, 39, 654-662.	1.3	37
95	A plasmonic colour filter and refractive index sensor applications based on metalâ€“insulatorâ€“metal square Âµ-ring cavities. Laser Physics, 2020, 30, 016205.	0.6	36
96	Spatial-Light-Modulator-Based Multichannel Data Transmission by Vortex Beams of Various Orders. Sensors, 2021, 21, 2988.	2.1	36
97	Mathematical model of completely optical system for detection of mode propagation parameters in an optical fiber with few-mode operation for adaptive compensation of mode coupling. Computer Optics, 2013, 37, 352-359.	1.3	36
98	Design and investigation of color separation diffraction gratings. Applied Optics, 2007, 46, 2825.	2.1	35
99	On the possibility of controlling laser ablation by tightly focused femtosecond radiation. Quantum Electronics, 2014, 44, 1061-1065.	0.3	35
100	3D transformations of light fields in the focal region implemented by diffractive axicons. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	35
101	High-throughput micropatterning of plasmonic surfaces by multiplexed femtosecond laser pulses for advanced IR-sensing applications. Applied Surface Science, 2019, 484, 948-956.	3.1	35
102	Wavefront Aberration Sensor Based on a Multichannel Diffractive Optical Element. Sensors, 2020, 20, 3850.	2.1	35
103	Simple optical vortices formed by a spiral phase plate. Journal of Optical Technology (A Translation of) Tj ETQq1 1 0.784314 rgBT /Overl	0.2	34
104	Optical Vortices in a Fiber: Mode Division Multiplexing and Multimode Self-Imaging. , 2012, , .		34
105	Metasurfaces with continuous ridges for inverse energy flux generation. Optics Express, 2019, 27, 15129.	1.7	34
106	Generating inhomogeneously polarized higher-order laser beams by use of diffractive optical elements. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2115.	0.8	33
107	Nanoscale boiling during single-shot femtosecond laser ablation of thin gold films. JETP Letters, 2015, 101, 394-397.	0.4	33
108	Nanodots decorated asymmetric metalâ€“insulatorâ€“metal waveguide resonator structure based on Fano resonances for refractive index sensing application. Laser Physics, 2020, 30, 076204.	0.6	33

#	Article	IF	Citations
109	Grating-based optical scheme for the universal generation of inhomogeneously polarized laser beams. Applied Optics, 2010, 49, 1734.	2.1	32
110	A multichannel metallic dual nano-wall square split-ring resonator: design analysis and applications. Laser Physics Letters, 2019, 16, 126201.	0.6	32
111	10-million-elements-per-second printing of infrared-resonant plasmonic arrays by multiplexed laser pulses. Optics Letters, 2019, 44, 283.	1.7	32
112	Recent Advances in Wearable Optical Sensor Automation Powered by Battery versus Skin-like Battery-Free Devices for Personal Healthcareâ€"A Review. Nanomaterials, 2022, 12, 334.	1.9	32
113	Rotation of multimode Gauss-Laguerre light beams in free space. Technical Physics Letters, 1997, 23, 657-658.	0.2	31
114	Generation of azimuthally modulated circular superlinear Airy beams. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 2544.	0.9	31
115	Plasmonic Nanolenses Produced by Cylindrical Vector Beam Printing for Sensing Applications. Scientific Reports, 2019, 9, 19750.	1.6	31
116	Iterative calculation of diffractive optical elements focusing into a three-dimensional domain and onto the surface of the body of rotation. Journal of Modern Optics, 1996, 43, 1509-1524.	0.6	30
117	Information transmission using optical vortices. Optical Memory and Neural Networks (Information) Tj ETQq1 1 0.784314 rgBT /Over	0.4	30
118	Variable transformation of singular cylindrical vector beams using anisotropic crystals. Scientific Reports, 2020, 10, 5590.	1.6	30
119	Shaping of spherical light intensity based on the interference of tightly focused beams with different polarizations. Optics and Laser Technology, 2014, 60, 99-106.	2.2	29
120	Comparative investigation of nonparaxial mode propagation along the axis of uniaxial crystal. Journal of Modern Optics, 2015, 62, 125-134.	0.6	29
121	Very compact focal spot in the near-field of the fractional axicon. Optics Communications, 2017, 391, 24-29.	1.0	29
122	Modelling of Rib channel waveguides based on silicon-on-sapphire at 4.67â€Î¼m wavelength for evanescent field gas absorption sensor. Optik, 2018, 168, 692-697.	1.4	29
123	A highly sensitive design of subwavelength grating double-slot waveguide microring resonator. Laser Physics Letters, 2020, 17, 076201.	0.6	29
124	Revolution in Flexible Wearable Electronics for Temperature and Pressure Monitoringâ€"A Review. Electronics (Switzerland), 2022, 11, 716.	1.8	29
125	Refractive twisted microaxicons. Optics Letters, 2020, 45, 1334.	1.7	28
126	Optical Computing: Status and Perspectives. Nanomaterials, 2022, 12, 2171.	1.9	28

#	Article	IF	Citations
127	Focusators into a ring. Optical and Quantum Electronics, 1993, 25, 801-814.	1.5	27
128	Propagation of laser vortex beams in a parabolic optical fiber. Proceedings of SPIE, 2009, , .	0.8	27
129	Diffractive optical elements for the formation of â€œlight bottleâ€•intensity distributions. Applied Optics, 2012, 51, 4215.	0.9	27
130	Near-field propagation of vortex beams: Models and computation algorithms. Optical Memory and Neural Networks (Information Optics), 2014, 23, 50-73.	0.4	27
131	Generation of a controlled double-ring-shaped radially polarized spiral laser beam using a combination of a binary axicon with an interference polarizer. Journal of Optics (United Kingdom), 2017, 19, 055701.	1.0	27
132	State-of-the-Art Optical Devices for Biomedical Sensing Applicationsâ€”A Review. Electronics (Switzerland), 2021, 10, 973.	1.8	27
133	Influence of optical forces induced by paraxial vortex Gaussian beams on the formation of a microrelief on carbazole-containing azopolymer films. Applied Optics, 2020, 59, 9185.	0.9	27
134	Vector Lissajous laser beams. Optics Letters, 2020, 45, 4112.	1.7	26
135	EXPERIMENTAL STUDY OF FOCUSING OF INHOMOGENEOUSLY POLARIZED BEAMS GENERATED USING SECTOR POLARIZING PLATES. Computer Optics, 2014, 38, 57-64.	1.3	26
136	Hybrid metasurface perfect absorbers for temperature and biosensing applications. Optical Materials, 2022, 123, 111906.	1.7	26
137	Generalized apodization of an incoherent imaging system aimed for extending the depth of focus. Pattern Recognition and Image Analysis, 2015, 25, 626-631.	0.6	25
138	Experimental investigation of multi-order diffractive optical elements matched with two types of Zernike functions. Proceedings of SPIE, 2016, , .	0.8	25
139	Dynamic focal shift and extending depth of focus based on the masking of the illuminating beam and using an adjustable axicon. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 1039.	0.8	25
140	Caustics of the vortex beams generated by vortex lenses and vortex axicons. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 476.	0.8	25
141	Harnessing the guided-mode resonance to design nanooptical transmission spectral filters. Optical Memory and Neural Networks (Information Optics), 2010, 19, 318-324.	0.4	24
142	Analysis of the formation of a longitudinally polarized optical needle by a lens and axicon under tightly focused conditions. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2016, 83, 197.	0.2	24
143	Analysis of polarisation states at sharp focusing. Optik, 2016, 127, 3372-3378.	1.4	24
144	Sensitivity Enhancement of Silicon Strip Waveguide Ring Resonator by Incorporating a Thin Metal Film. IEEE Sensors Journal, 2020, 20, 1355-1362.	2.4	24

#	Article	IF	Citations
145	FEATURES OF NONPARAXIAL PROPAGATION OF GAUSSIAN AND BESSEL BEAMS ALONG THE AXIS OF THE CRYSTAL. Computer Optics, 2013, 37, 297-306.	1.3	24
146	Calculating the complex transmission function of refractive axicons. Optical Memory and Neural Networks (Information Optics), 2012, 21, 133-144.	0.4	23
147	Study of polarization properties of fiber-optics probes with use of a binary phase plate. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, 802.	0.8	23
148	Diffraction patterns withmth order symmetry generated by sectional spiral phase plates. Journal of Optics (United Kingdom), 2015, 17, 125607.	1.0	23
149	Ultrafast rotating dipole or propeller-shaped patterns: subwavelength shaping of a beam of light on a femtosecond time scale. Optics Letters, 2016, 41, 1605.	1.7	23
150	Caustics of Vortex Optical Beams. Doklady Physics, 2019, 64, 276-279.	0.2	23
151	Ultra-short lossless plasmonic power splitter design based on metalâ€“insulatorâ€“metal waveguide. Laser Physics, 2020, 30, 016201.	0.6	23
152	Study of the Diffraction Grating on a Convex Surface as a Dispersive Element. Computer Optics, 2015, 39, 211-217.	1.3	23
153	Rotation of multimodal Gaussâ€“Laguerre light beams in free space and in a fiber. Optics and Lasers in Engineering, 1998, 29, 343-350.	2.0	22
154	Rotating optical fields: experimental demonstration with diffractive optics. Journal of Modern Optics, 1998, 45, 2355-2369.	0.6	22
155	Experimental excitation and detection of angular harmonics in a step-index optical fiber. Optical Memory and Neural Networks (Information Optics), 2007, 16, 295-300.	0.4	22
156	A Longitudinally Polarized Beam Generated by a Binary Axicon. Journal of Russian Laser Research, 2015, 36, 151-161.	0.3	22
157	Generation of Hermiteâ€“Gaussian modes of high-power femtosecond laser radiation using binary-phase diffractive optical elements. Quantum Electronics, 2016, 46, 733-737.	0.3	22
158	Numerical analysis of a miniaturized design of a Fabryâ€“Perot resonator based on silicon strip and slot waveguides for bio-sensing applications. Journal of Modern Optics, 2019, 66, 1172-1178.	0.6	22
159	Modal Characteristics of Refractive Index Engineered Hybrid Plasmonic Waveguide. IEEE Sensors Journal, 2020, 20, 9779-9786.	2.4	22
160	Generalized lens: calculation of distribution on the optical axis. Computer Optics, 2013, 37, 307-315.	1.3	22
161	Zernike phase spatial filter for measuring the aberrations of the optical structures of the eye. Journal of Biomedical Photonics and Engineering, 0, , 146-153.	0.4	22
162	Label-free detection of ambient refractive index based on plasmonic Bragg gratings embedded resonator cavity sensor. Journal of Modern Optics, 2019, 66, 1920-1925.	0.6	21

#	Article	IF	Citations
163	Device performance of standard strip, slot and hybrid plasmonic Î¼-ring resonator: a comparative study. Waves in Random and Complex Media, 2021, 31, 2397-2406.	1.6	21
164	Metalenses for the generation of vector Lissajous beams with a complex Poynting vector density. Optics Express, 2021, 29, 18634.	1.7	21
165	Ultrashort inverted tapered silicon ridge-to-slot waveguide coupler at 1.55â€‰â€‰Âµm and 3.392â€‰â€‰Âµm wavelength. Applied Optics, 2020, 59, 7821.	0.9	21
166	Design, fabrication and investigation of a subwavelength axicon for terahertz beam polarization transforming. Computer Optics, 2019, 43, .	1.3	21
167	Self-reproduction of multimode hermite-gaussian beams. Technical Physics Letters, 1999, 25, 489-491.	0.2	20
168	The calculation of the diffraction of the laser beams with a phase singularity on the micro-axicons with using high-performance computing. Journal of Physics: Conference Series, 2014, 490, 012213.	0.3	20
169	Time behavior of focused vector beams. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 1948.	0.8	20
170	Nonparaxial effects in lensacon optical systems. Optoelectronics, Instrumentation and Data Processing, 2017, 53, 484-493.	0.2	20
171	Simple method for efficient reconfigurable optical vortex beam splitting. Optics Express, 2017, 25, 18722.	1.7	20
172	Focusing of shifted vortex beams of arbitrary order with different polarization. Optics Communications, 2018, 426, 359-365.	1.0	20
173	High-speed format 1000BASE-SX / LX transmission through the atmosphere by vortex beams near IR range with help modified SFP-transmers DEM-310GT. Computer Optics, 2020, 44, .	1.3	20
174	Recognition of wavefront aberrations types corresponding to single Zernike functions from the pattern of the point spread function in the focal plane using neural networks. Computer Optics, 2020, 44, .	1.3	20
175	A compact design of a modified Bragg grating filter based on a metal-insulator-metal waveguide for filtering and temperature sensing applications. Optik, 2022, 251, 168466.	1.4	20
176	Using phase diffraction optical elements to shape and select laser beams consisting of a superposition of an arbitrary number of angular harmonics. Journal of Optical Technology (A Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 217	0.2	19
177	Optical rotation of microparticles in hypergeometric beams formed by diffraction optical elements with multilevel microrelief. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2013, 80, 585.	0.2	19
178	Tighter focus for ultrashort pulse vector light beams: change of the relative contribution of different field components to the focal spot upon pulse shortening. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 985.	0.8	19
179	Polarization-Insensitive Hybrid Plasmonic Waveguide Design for Evanescent Field Absorption Gas Sensor. Photonic Sensors, 2021, 11, 279-290.	2.5	19
180	2D-Photonic crystal heterostructures for the realization of compact photonic devices. Photonics and Nanostructures - Fundamentals and Applications, 2021, 44, 100903.	1.0	19

#	Article	IF	Citations
181	Binary multi-order diffraction optical elements with variable fill factor for the formation and detection of optical vortices of arbitrary order. Applied Optics, 2019, 58, 8227.	0.9	19
182	ANALYSIS OF CORNEAL ABERRATION OF THE HUMAN EYE. Computer Optics, 2016, 40, 810-817.	1.3	19
183	Simple and Improved Plasmonic Sensor Configuration Established on MIM Waveguide for Enhanced Sensing Performance. Plasmonics, 2022, 17, 1305-1314.	1.8	19
184	Three-Dimensional Incoherent Imaging Using Spiral Rotating Point Spread Functions Created by Double-Helix Beams [Invited]. Nanoscale Research Letters, 2022, 17, 37.	3.1	19
185	<title>Bessel-mode formers</title>. , 1995, 2363, 184.		18
186	An analog of the Rayleighâ€“Sommerfeld integral for anisotropic and gyrotropic media. Journal of Modern Optics, 2013, 60, 814-822.	0.6	18
187	Local foci of a parabolic binary diffraction lens. Applied Optics, 2015, 54, 5680.	2.1	18
188	Creating order with the help of randomness: generating transversely random, longitudinally invariant vector optical fields. Optics Letters, 2015, 40, 4070.	1.7	18
189	Apodization for improving the two-point resolution of coherent optical systems with defect of focus. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	18
190	Metal-Insulator-Metal Waveguide-Based Racetrack Integrated Circular Cavity for Refractive Index Sensing Application. Electronics (Switzerland), 2021, 10, 1419.	1.8	18
191	Fracxicon as hybrid element between the parabolic lens and the linear axicon. Computer Optics, 2014, 38, 402-411.	1.3	18
192	Comparison of focusing of short pulses in the Debye approximation. Computer Optics, 2018, 42, 432-446.	1.3	18
193	Vectorial spin Hall effect of light upon tight focusing. Optics Letters, 2022, 47, 2166.	1.7	18
194	Decomposition of a coherent light field using a phase Zernike filter. , 1998, , .		17
195	Application of the direct search in solving a problem of forming longitudinal distribution of intensity. Journal of Modern Optics, 2011, 58, 69-76.	0.6	17
196	Complex Pupil Masks for Aberrated Imaging of Closely Spaced Objects. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2017, 123, 940-949.	0.2	17
197	The superposition of the Bessel and mirrored Bessel beams and investigation of their self-healing characteristic. Optik, 2020, 208, 164057.	1.4	17
198	Numerical investigation of metasurface narrowband perfect absorber and a plasmonic sensor for a near-infrared wavelength range. Journal of Optics (United Kingdom), 2021, 23, 065102.	1.0	17

#	Article	IF	Citations
199	CALCULATION OF EIGENFUNCTIONS OF A BOUNDED FRACTIONAL FOURIER TRANSFORM. Computer Optics, 2015, 39, 332-338.	1.3	17
200	Analysis of focusing light by a harmonic diffractive lens taking into account the refractive index dispersion. Computer Optics, 2017, 41, 338-347.	1.3	17
201	Calculation of the angular momentum of an electromagnetic field inside a waveguide with absolutely conducting walls: ab initio. Computer Optics, 2018, 42, 588-605.	1.3	17
202	Advancement in Silicon Integrated Photonics Technologies for Sensing Applications in Near-Infrared and Mid-Infrared Region: A Review. Photonics, 2022, 9, 331.	0.9	17
203	Advances in Waveguide Bragg Grating Structures, Platforms, and Applications: An Up-to-Date Appraisal. Biosensors, 2022, 12, 497.	2.3	17
204	Techniques for encoding composite diffractive optical elements. , 2003, , .		16
205	Optimization of the Optical Microelements Using High-Performance Computer Systems. Radiophysics and Quantum Electronics, 2015, 57, 650-658.	0.1	16
206	Control of the formation of vortex Bessel beams in uniaxial crystals by varying the beam divergence. Quantum Electronics, 2016, 46, 163-168.	0.3	16
207	Birefringence detection of a gradient-index lens based on astigmatic transformation of a Bessel beam. Optik, 2018, 164, 679-685.	1.4	16
208	Compact design of a polarization beam splitter based on silicon-on-insulator platform. Laser Physics, 2018, 28, 116202.	0.6	16
209	Autofocusing and Self-Healing Properties of Aberration Laser Beams in a Turbulent Media. Physical Review Applied, 2021, 16, .	1.5	16
210	Robust multifilament arrays in air by Dammann grating. Optics Express, 2021, 29, 34189-34204.	1.7	16
211	Control of the intensity distribution along the light spiral generated by a generalized spiral phase plate. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 420.	0.9	16
212	Application of a binary curved fork grating for the generation and detection of optical vortices outside the focal plane. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1714.	0.9	16
213	Ultrafast spinning twisted ribbons of confined electric fields. Optica, 2020, 7, 1228.	4.8	16
214	EXPERIMENTAL DEMONSTRATION OF GENERATION OF LONGITUDINAL COMPONENT OF THE ELECTRIC FIELD ON THE OPTICAL AXIS BY HIGH-APERTURE BINARY AXICON FOR LINEAR AND CIRCULAR POLARIZATION OF THE INCIDENT BEAM. Computer Optics, 2013, 37, 76-87.	1.3	16
215	ANALYSIS OF LASER BEAM DIFFRACTION BY AXICON WITH THE NUMERICAL APERTURE ABOVE LIMITING. Computer Optics, 2014, 38, 213-222.	1.3	16
216	STUDY OF THE BROADBAND RADIATION INTENSITY DISTRIBUTION FORMED BY DIFFRACTIVE OPTICAL ELEMENTS. Computer Optics, 2014, 38, 689-694.	1.3	16

#	Article	IF	Citations
217	ASYMMETRIC APODIZATION FOR THE COMMA ABERRATED POINT SPREAD FUNCTION. Computer Optics, 2017, 41, 484-488.	1.3	16
218	Writing and reading with the longitudinal component of light using carbazole-containing azopolymer thin films. Scientific Reports, 2022, 12, 3477.	1.6	16
219	Effect of the fill factor of an annular diffraction grating on the energy distribution in the focal plane. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2017, 84, 580.	0.2	15
220	A serially cascaded micro-ring resonator for simultaneous detection of multiple analytes. Laser Physics, 2019, 29, 046208.	0.6	15
221	Spiral Caustics of Vortex Beams. Photonics, 2021, 8, 24.	0.9	15
222	Increased reverse energy flux area when focusing a linearly polarized annular beam with binary plates. Optics Letters, 2019, 44, 2008.	1.7	15
223	Fabrication and Investigation of Spectral Properties of a Dielectric Slab Waveguide Photonic Crystal Based Fano-Filter. Crystals, 2022, 12, 226.	1.0	15
224	Diffractive optical element for Zernike decomposition. , 1998, , .		14
225	Polarization-selective Excitation of Dye Luminescence on a Gold Film by Structured Ultrashort Laser Pulses. JETP Letters, 2018, 107, 15-18.	0.4	14
226	Plasmonic refractive index sensor based on M-I-M square ring resonator. , 2018, , .		14
227	Fractional two-parameter parabolic diffraction-free beams. Optics Communications, 2019, 450, 103-111.	1.0	14
228	A T-shaped 1â€‰â€‰Ã—â€‰â€‰8 balanced optical power splitter based on 90Â° bend asymmetric vertical slot waveguides. Laser Physics, 2019, 29, 046207.	0.6	14
229	Generation of Multiple Vector Optical Bottle Beams. Photonics, 2021, 8, 218.	0.9	14
230	Caustics of Non-Paraxial Perfect Optical Vortices Generated by Toroidal Vortex Lenses. Photonics, 2021, 8, 259.	0.9	14
231	Rotation of microparticles with Bessel beams generated by diffractive elements. Journal of Modern Optics, 2004, 51, 2167-2184.	0.6	14
232	Investigation of photoinduced formation of microstructures on the surface of carbaseole-containing azopolymer depending on the power density of incident beams. Computer Optics, 2018, 42, 779-785.	1.3	14
233	Harnessing of inhomogeneously polarized Hermiteâ€“Gaussian vector beams to manage the 3D spin angular momentum density distribution. Nanophotonics, 2022, 11, 697-712.	2.9	14
234	<title>Transverse mode multiplexing by diffractive optical elements</title>. , 2005, , .		13

#	Article	IF	Citations
235	Three-dimensional laser trapping on the base of binary radial diffractive optical element. Journal of Modern Optics, 2015, 62, 1183-1186.	0.6	13
236	Implementation of ordinary and extraordinary beams interference by application of diffractive optical elements. Journal of Modern Optics, 2016, , 1-9.	0.6	13
237	Spectral characteristics of broad band-rejection filter based on Bragg grating, one-dimensional photonic crystal, and subwavelength grating waveguide. Physica Scripta, 2021, 96, 055505.	1.2	13
238	Zernike basis-matched multi-order diffractive optical elements for wavefront weak aberrations analysis. , 2017, , .		13
239	Levelling the focal spot intensity of the focused gaussian beam. Journal of Modern Optics, 2000, 47, 883-904.	0.6	12
240	Astigmatic transformation of optical vortex beams with high-order cylindrical polarization. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 2193.	0.9	12
241	Silicon microprotrusions with tailored chirality enabled by direct femtosecond laser ablation. Optics Letters, 2020, 45, 3050.	1.7	12
242	Energy deposition parameters revealed in the transition from 3D to 1D femtosecond laser ablation of fluorite at high-NA focusing. Optical Materials Express, 2020, 10, 3291.	1.6	12
243	DIFFRACTION OF LASER BEAM ON A TWO-ZONE CYLINDRICAL MICROELEMENT. Computer Optics, 2013, 37, 160-169.	1.3	12
244	Generation of radially polarized beams based on the refractive optical elements with interference polarizing coatings. Computer Optics, 2015, 39, 492-499.	1.3	12
245	Geometric-optical calculation of the focal spot of a harmonic diffractive lens. Computer Optics, 2016, 40, 331-337.	1.3	12
246	Generation of Gauss-Hermite modes using binary DOEs. , 1999, 4016, 234.		11
247	DOE-generated laser beams with given orbital angular moment: application for micromanipulation. , 2005, , .		11
248	Simulation of spectral filters used in hyperspectrometer by decomposition on vector Bessel modes. Proceedings of SPIE, 2015, , .	0.8	11
249	Tight focusing of higher orders Laguerre-Gaussian modes. AIP Conference Proceedings, 2016, , .	0.3	11
250	Diffractive axicon with tunable fill factor for focal ring splitting. , 2017, , .		11
251	Formation of signals matched with vortex eigenfunctions of bounded double lens system. Optics Communications, 2018, 410, 153-159.	1.0	11
252	Local characteristics of paraxial Laguerreâ€“Gaussian vortex beams with a zero total angular momentum. Journal of Modern Optics, 2019, 66, 1961-1972.	0.6	11

#	Article	IF	Citations
253	Generating autofocused aberration laser beams with different spectral performance. Journal of Optics (United Kingdom), 2020, 22, 045606.	1.0	11
254	Generation of multi-contour plane curves using vortex beams. Optik, 2021, 229, 166299.	1.4	11
255	Singular laser beams nanofocusing with dielectric nanostructures: theoretical investigation. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 2480.	0.9	11
256	Sector sandwich structure: an easy-to-manufacture way towards complex vector beam generation. Optics Express, 2020, 28, 27628.	1.7	11
257	A compact design of a balanced 1Ã—4 optical power splitter based on silicon on insulator slot waveguides. Computer Optics, 2018, 42, 244-247.	1.3	11
258	Binary diffraction optical element focusing a Gaussian beam to a longitudinal segment. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 89, 318-323.	0.2	10
259	Sharper Focal Spot for a Radially Polarized Beam Using Ring Aperture with Phase Jump. Journal of Engineering (United States), 2013, 2013, 1-8.	0.5	10
260	Apodization of two-dimensional pupils with aberrations. Pramana - Journal of Physics, 2018, 90, 1.	0.9	10
261	Polarisation-dependent transformation of vortex beams when focused perpendicular to the crystal axis. Optics Communications, 2018, 428, 63-68.	1.0	10
262	Generation of Complex Transverse Energy Flow Distributions with Autofocusing Optical Vortex Beams. Micromachines, 2021, 12, 297.	1.4	10
263	Breaking the symmetry to structure light. Optics Letters, 2021, 46, 2605.	1.7	10
264	Two-step maskless fabrication of compound fork-shaped gratings in nanomultilayer structures based on chalcogenide glasses. Optics Letters, 2021, 46, 3037.	1.7	10
265	Application of a neural network for calculating the surface relief of a different level two-zone lens with an increased depth of field. , 2020, , .		10
266	STUDY OF POLARIZATION TRANSFORMATIONS AND INTERACTION OF ORDINARY AND EXTRAORDINARY BEAMS IN NONPARAXIAL REGIME. Computer Optics, 2014, 38, 598-605.	1.3	10
267	Hybrid asymptotic method for analyzing caustics of optical elements in the axially symmetric case. Computer Optics, 2017, 41, 175-182.	1.3	10
268	A four-sector polarization converter integrated in a calcite crystal. Computer Optics, 2018, 42, 401-407.	1.3	10
269	Analysis of the wavefront aberrations based on neural networks processing of the interferograms with a conical reference beam. Applied Physics B: Lasers and Optics, 2022, 128, 1.	1.1	10
270	How the tilt of a phase diffraction optical element affects the properties of shaped laser beams matched with a basis of angular harmonics. Journal of Optical Technology (A Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 57 Td	0.2	10

#	Article	IF	Citations
271	Self-reproduction of multimode laser fields in weakly guiding stepped-index fibers. Optical Memory and Neural Networks (Information Optics), 2007, 16, 167-177.	0.4	9
272	Application axicons in a large-aperture focusing system. Optical Memory and Neural Networks (Information Optics), 2014, 23, 201-217.	0.4	9
273	Lenses to form a longitudinal distribution matched with special functions. Optics Communications, 2015, 341, 114-121.	1.0	9
274	Ultraviolet-LIGA-based fabrication and characterization of a nonresonant drive-mode vibratory gyro/accelerometer. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2016, 15, 035001.	1.0	9
275	Iterative approach to solve the inverse diffraction problem under sharp focusing conditions. Optical Memory and Neural Networks (Information Optics), 2017, 26, 18-25.	0.4	9
276	Generation of nonuniformly polarised vortex Bessel beams by an interference polariser. Quantum Electronics, 2018, 48, 521-526.	0.3	9
277	Fractal Cylindrical Fracxicon. Optical Memory and Neural Networks (Information Optics), 2018, 27, 1-9.	0.4	9
278	Symmetric nanostructuring and plasmonic excitation of gold nanostructures by femtosecond Laguerre â€“ Gaussian laser beams. Quantum Electronics, 2019, 49, 666-671.	0.3	9
279	Diffraction catastrophes and asymptotic analysis of caustics from axisymmetric optical elements. , 2019, , .		9
280	Generation of an optical ball bearing facilitated by coupling between handedness of polarization of light and helicity of its phase. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 2087.	0.9	9
281	Diffraction by a conical axicon considering multiple internal reflections. Computer Optics, 2015, 39, 500-507.	1.3	9
282	Conversion of a conical wave with circular polarization into a vortex cylindrically polarized beam in a metal waveguide. Computer Optics, 2018, 42, 197-211.	1.3	9
283	Properties of off-axis caustics of autofocusing chirp beams. Computer Optics, 2020, 44, .	1.3	9
284	Simulation of a hyperspectrometer based on linear spectral filters using vector bessel beams. Computer Optics, 2014, 38, 770-776.	1.3	9
285	A Miniaturized FSS-Based Eight-Element MIMO Antenna Array for Off/On-Body WBAN Telemetry Applications. Electronics (Switzerland), 2022, 11, 522.	1.8	9
286	Micromanipulation in higher-order Bessel beams. Optical Memory and Neural Networks (Information) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.4	8
287	Generation and conversion of mode beams and their polarization states on the basis of diffractive optical elements application. Optical Engineering, 2013, 52, 091718.	0.5	8
288	Modelling of TiO2 based slot waveguides with high optical confinement in sharp bends. , 2016, , .		8

#	Article	IF	Citations
289	Study of the electro-optical transformation of linearly polarized Bessel beams propagating along the optic axis of an anisotropic DKDP crystal. Journal of Optical Technology (A Translation of Opticheskii) Tj ETQq1 1 0.784314 rgBT /Ove		8
290	Hybrid plasmonic waveguide race-track Âμ-ring resonator: Analysis of dielectric and hybrid mode for refractive index sensing applications. Laser Physics, 2020, 30, 016202.	0.6	8
291	Power Phase Apodization Study on Compensation Defocusing and Chromatic Aberration in the Imaging System. Electronics (Switzerland), 2021, 10, 1327.	1.8	8
292	Symmetry-wise nanopatterning and plasmonic excitation of ring-like gold nanoholes by structured femtosecond laser pulses with different polarizations. Optics Letters, 2019, 44, 1129.	1.7	8
293	THEORETICAL AND AN EXPERIMENTAL RESEARCH OF POLARIZING TRANSFORMATIONS IN UNIAXIAL CRYSTALS FOR GENERATION CYLINDRICAL VECTOR BEAMS OF HIGH ORDERS. Computer Optics, 2014, 38, 171-180.	1.3	8
294	Study of focusing into closely spaced spots via illuminating a diffractive optical element by a short-pulse laser beam. Computer Optics, 2015, 39, 187-196.	1.3	8
295	COMPARATIVE STUDY OF THE SPECTRAL CHARACTERISTICS OF ASPHERIC LENSE. Computer Optics, 2015, 39, 363-239.	1.3	8
296	CONDITIONS OF A SINGLE-MODE RIB CHANNEL WAVEGUIDE BASED ON DIELECTRIC TIO2/SIO2. Computer Optics, 2017, 41, 494-498.	1.3	8
297	Focusing of light beams by the phase apodization pupil. Computer Optics, 2018, 42, 620-626.	1.3	8
298	Catastrophe theory and caustics of radially symmetric beams. Computer Optics, 2019, 43, .	1.3	8
299	Investigation of the topological charge stability for multi-ringed Laguerreâ€“Gauss vortex beams to random distortions. Computer Optics, 2019, 43, .	1.3	8
300	Alignment and study of prototypes of the Offner hyperspectrometer. VESTNIK of the Samara State Aerospace University, 2016, 15, 197.	0.1	8
301	Algorithm for reconstructing complex coefficients of Laguerreâ€“Gaussian modes from the intensity distribution of their coherent superposition. Computer Optics, 2020, 44, .	1.3	8
302	Adaptive Detection of Wave Aberrations Based on the Multichannel Filter. Photonics, 2022, 9, 204.	0.9	8
303	Neural networks application to determine the types and magnitude of aberrations from the pattern of the point spread function out of the focal plane. Journal of Physics: Conference Series, 2021, 2086, 012148.	0.3	8
304	Numerical Study of Fabrication-Related Effects of the Structural-Profile on the Performance of a Dielectric Photonic Crystal-Based Fluid Sensor. Materials, 2022, 15, 3277.	1.3	8
305	‹title›High-effective fiber sensors based on transversal mode selection‹/title›. , 2005, 5854, 163.		7
306	Optical micromanipulation using DOEs matched with optical vorticies. , 2006, 6187, 408.		7

#	Article	IF	Citations
307	Two-component cavity based on a regular photonic crystal nanobeam. Applied Optics, 2013, 52, 5830.	0.9	7
308	Minimizing the Bright/Shadow Focal Spot Size with Controlled Side-Lobe Increase in High-Numerical-Aperture Focusing Systems. Advances in Optical Technologies, 2013, 2013, 1-13.	0.8	7
309	Coding of an optical signal by a superposition of spheroidal functions for undistorted transmission of information in the lens system. , 2014, , .		7
310	Extended depth of focus through imaging systemâ€™s phase apodization in coherent and incoherent cases. Optical Memory and Neural Networks (Information Optics), 2014, 23, 130-139.	0.4	7
311	Layered lens with a linear dependence of the refractive index change. , 2016, , .		7
312	Efficient generation of arrays of closed-packed high-quality light rings. Photonics and Nanostructures - Fundamentals and Applications, 2019, 37, 100736.	1.0	7
313	Enhancement of evanescent field ratio in a silicon strip waveguide by incorporating a thin metal film. Laser Physics, 2019, 29, 076202.	0.6	7
314	Mirror and Circular Symmetry of Autofocusing Beams. Symmetry, 2021, 13, 1794.	1.1	7
315	A differential method for calculating X-ray diffraction on crystals: scalar theory. Computer Optics, 2015, 39, 469-479.	1.3	7
316	Propagation of electromagnetic pulses and calculation of dynamic invariants in a waveguide with a convex shell. Computer Optics, 2018, 42, 947-958.	1.3	7
317	Reduction of the focal spot size in high-aperture focusing systems at inserting of aberrations. Optical Memory and Neural Networks (Information Optics), 2011, 20, 155-167.	0.4	6
318	Simulation of vortex laser beams propagation in parabolic index media based on fractional Fourier transform. Journal of Physics: Conference Series, 2016, 741, 012142.	0.3	6
319	Biomedical bandpass filter for fluorescence microscopy imaging based on TiO2/SiO2and TiO2/MgF2dielectric multilayers. Journal of Physics: Conference Series, 2016, 741, 012136.	0.3	6
320	Control of the optical properties of a CaCO3 crystal in problems of generating bessel vortex beams by heating. Optoelectronics, Instrumentation and Data Processing, 2016, 52, 174-179.	0.2	6
321	Spatiotemporal dynamics of the polarisation state of laser radiation performed by lens-axicon combinations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2535-2541.	0.9	6
322	NANOFOCUSING BY SHARP EDGES. Computer Optics, 2014, 38, 629-637.	1.3	6
323	NUMERICAL ANALYSIS OF SUBWAVELENGTH FOCUSING USING A SILICON CYLINDER. Computer Optics, 2014, 38, 638-642.	1.3	6
324	Electro-optical correction of Bessel beam conversion along the axis of a barium niobate-strontium crystal. Computer Optics, 2016, 40, 475-481.	1.3	6

#	Article	IF	Citations
325	Formation of required distributions on the basis of decomposition by vortex eigen functions of a bounded non-paraxial propagation operator. Computer Optics, 2019, 43, .	1.3	6
326	Optical detection of values of separate aberrations using a multi-channel filter matched with phase Zernike functions. Computer Optics, 2021, 45, .	1.3	6
327	Wavelength-Tunable Vortex Beam Emitter Based on Silicon Micro-Ring with PN Depletion Diode. Sensors, 2022, 22, 929.	2.1	6
328	<title>Optical-digital method for detecting distortions of microcrystal structure on a tear crystallogram</title>. , 1995, 2363, 249.		5
329	Rotating micro-objects using a DOE-generated laser Bessel beam. , 2004, , .		5
330	Stochastic optimization of radial DOE forming intensity distribution along an axial focal zone. Proceedings of SPIE, 2010, , .	0.8	5
331	Analyzing the Symmetry Properties of a Distribution in the Focal Plane for a Focusing Element with Periodic Angle Dependence of Phase. Advances in Optical Technologies, 2012, 2012, 1-7.	0.8	5
332	Thin Light Tube Formation by Tightly Focused Azimuthally Polarized Light Beams. , 2013, 2013, 1-6.		5
333	Nanocrystalline silicon thin films and grating structures for solar cells. , 2016, , .		5
334	Transformation of Bessel Beams in C-Cuts of Uniaxial Crystals by Varying the Emission Source Wavelength. Journal of Russian Laser Research, 2016, 37, 250-253.	0.3	5
335	Effect of power on growth of nanocrystalline silicon films deposited by VHF PECVD technique for solar cell applications. AIP Conference Proceedings, 2016, , .	0.3	5
336	Au-SiO₂-Si hybrid plasmonic waveguide micro-ring resonator sensor. Journal of Physics: Conference Series, 2018, 1124, 051001.	0.3	5
337	2D-Heterostructure Photonic Crystal Formation for On-Chip Polarization Division Multiplexing. Photonics, 2021, 8, 313.	0.9	5
338	Anisotropic diffractive optical element for generating hybrid-polarized beams. Optical Engineering, 2018, 58, 1.	0.5	5
339	Influence of eye refractive surface curvature modification on the retinal image quality in the liou-brennan eye model. Computer Optics, 2015, 39, 702-708.	1.3	5
340	Design and analysis of a three-wave diffraction focusing doublet. Computer Optics, 2016, 40, 173-178.	1.3	5
341	Refractive Bi-Conic Axicon (Volcone) for Polarization Conversion of Monochromatic Radiation. Photonics, 2022, 9, 421.	0.9	5
342	Phase optical components for the generation of free-space quasimodes. Soviet Journal of Quantum Electronics, 1991, 21, 1278-1281.	0.1	4

#	Article	IF	Citations
343	<title>Measuring geometric parameters using image processing and diffractive optics methods</title>. , 2002, , .		4
344	<title>Design of multichannel phase spatial filter for selection of Gauss-Laguerre laser modes</title>. , 2002, 4705, 30.		4
345	Phase diffractive filter to analyze an output step-index fiber beam. , 2004, 5182, 251.		4
346	Singular phase elements as detectors for different polarizations. , 2013, , .		4
347	Interference analysis of radially polarized laser beams generated by ring optical elements with vortical phases at sharp focusing. Optical Memory and Neural Networks (Information Optics), 2015, 24, 130-144.	0.4	4
348	Transmission of focused light signal through an apertured probe of a near-field scanning microscope. Pattern Recognition and Image Analysis, 2015, 25, 306-313.	0.6	4
349	Sharp focusing of laser beams in anisotropic uniaxial crystals. Journal of Optical Technology (A) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.2	4
350	Far-field light imaging in the presence of atmospheric turbulence with rotating anti-phase apertures: Theoretical investigation. , 2017, , .		4
351	Defined distribution forming in the near diffraction zone based on expansion of finite propagation operator eigenfunctions. Procedia Engineering, 2017, 201, 53-60.	1.2	4
352	An algorithm for the generation of laser beams with longitudinal periodicity: Rotating images. , 0, .		4
353	Optical planar waveguide sensor based on (Yb,Nb):RTP/RTP(001) system for the estimation of metal coated cells. , 2016, , .		4
354	GENERATION OF CLOSELY LOCATED LIGHT SPOTS USING SPECULAR AIRY LASER BEAMS. Computer Optics, 2017, 41, 661-668.	1.3	4
355	A method of generating a random optical field using the Karhunen-Loeve expansion to simulate atmospheric turbulence. Computer Optics, 2020, 44, .	1.3	4
356	Generation of scalable wavefront for testing optical systems. , 2020, , .		4
357	Single- and Double-Beam Optical Formation of Relief-Phase Diffraction Microstructures in Carbazole-Containing Azopolymer Films. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock	0.7	4
358	Tailoring of Inverse Energy Flow Profiles with Vector Lissajous Beams. Photonics, 2022, 9, 121.	0.9	4
359	Method for design of DOE for the generation of contour images. , 1998, , .		3
360	Optodigital system for identifying fingerprints in real time. Journal of Optical Technology (A) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	0.2	3

#	Article	IF	Citations
361	DOE for optical micromanipulation. , 2005, , .		3
362	Theoretical and experimental study of aperture size effects on the polarization sensitivity of near-field microscopy fiber-optic probes. Proceedings of SPIE, 2014, , .	0.8	3
363	Calculation of the eigenfunctions of two lens imaging system. , 2015, , .		3
364	Reactive ion etching of indium-tin oxide films by CCl₄-based Inductivity Coupled Plasma. Journal of Physics: Conference Series, 2016, 741, 012105.	0.3	3
365	3D simulation of silicon micro-ring resonator with Comsol. , 2016, , .		3
366	Calculating x-ray diffraction on crystals by means of the differential method. Proceedings of SPIE, 2016, , .	0.8	3
367	Study of extended focal segment formation by conic axicons and layered lenses. , 2016, , .		3
368	Demonstration of vortical beams spectral stability formed in non-zero diffraction orders. Journal of Physics: Conference Series, 2016, 735, 012023.	0.3	3
369	Focusing of the laser beam by the conical axicon and the matched linearly layered lens. , 2016, , .		3
370	Dielectric-Metal-Dielectric (D-M-D) infrared (IR) heat reflectors. Journal of Physics: Conference Series, 2017, 917, 062007.	0.3	3
371	Formation of microstructures on the surface of a carbaseole-containing azopolymer by the action of laser beams. Journal of Physics: Conference Series, 2019, 1368, 022069.	0.3	3
372	Formation of Inverse Energy Flux in the Case of Diffraction of Linearly Polarized Radiation by Conventional and Generalized Spiral Phase Plates. Photonics, 2021, 8, 283.	0.9	3
373	DIFFRACTION OF A GAUSSIAN BEAM ON THE GENERALIZED LENS. Computer Optics, 2013, 37, 443-450.	1.3	3
374	ANALYSIS OF FLAT BEAM DIFFRACTION BY DIVERGENT FRACXICON IN NONPARAXIAL MODE. Computer Optics, 2014, 38, 42-50.	1.3	3
375	ÐÐÐ¡Ð§ÐÐ¢ Ð¡ÐžÐ'Ð¡Ð¢Ð'Ð•ÐÐ«Ð¥ ÐÐ£ÐÐšÐ¦Ð˜Ð™ Ð˜Ð—ÐžÐ'ÐÐ–ÐÐ®Ð©Ð•Ð™ Ð"Ð'Ð£Ð¥Ð›Ð˜ÐÐ—ÐžÐ'ÐžÐ™ Ð¡Ð¾Ð¡Ð¢Ð•		
376	CALCULATION OF DIFFRACTION OF LASER RADIATION BY A TWO-DIMENSIONAL (CYLINDRICAL) AXICON WITH THE HIGH NUMERICAL APERTURE IN VARIOUS MODELS. Computer Optics, 2014, 38, 670-680.	1.3	3
377	Design, simulation, and fabrication of silicon-on-insulator MEMS vibratory decoupled gyroscope. Computer Optics, 2016, 40, 668-673.	1.3	3
378	Robust Demultiplexing of Distinct Orbital Angular Momentum Infrared Vortex Beams Into Different Spatial Geometry Over a Broad Spectral Range. IEEE Access, 2021, 9, 143341-143348.	2.6	3

#	Article	IF	Citations
379	Influence of subwave details of microrelief on the diffraction pattern of gaussian beams. Vestnik of Samara University: Aerospace and Mechanical Engineering, 2014, , 275.	0.0	3
380	Free-Space Transmission and Detection of Variously Polarized Near-IR Beams Using Standard Communication Systems with Embedded Singular Phase Structures. Sensors, 2022, 22, 890.	2.1	3
381	<title>Image recognition using a directional field technique</title>. , 1998, 3346, 238.		2
382	Micro-object manipulation by laser beams with nonzero orbital momentum. , 2003, 5129, 140.		2
383	How processing errors and broadening of the emission line of a laser affect the operating quality of diffractive optical elements. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2004, 71, 469.	0.2	2
384	<title>Remarkable laser beams formed by computer-generated optical elements: properties and applications</title>. , 2006, 6252, 285.		2
385	Calculating the Energy Spectrum of Complex Low-Dimensional Heterostructures in the Electric Field. Scientific World Journal, The, 2013, 2013, 1-7.	0.8	2
386	Sharp focusing by means of binary relief at the end of the optical fiber. , 2014, , .		2
387	Lightning-rod effect near sharp dielectric structures. , 2015, , .		2
388	Modeling of forming radially polarized beams on the basis of refractive elements with interference polarizer. , 2016, , .		2
389	Design and fabrication of a 1-DOF drive mode and 2-DOF sense mode micro-gyroscope using SU-8 based UV-LIGA process. AIP Conference Proceedings, 2016, , .	0.3	2
390	Indium phosphide all air-gap Fabry-PÃ©rot filters for near-infrared spectroscopic applications. Journal of Physics: Conference Series, 2016, 741, 012135.	0.3	2
391	Modelling of the optical planar waveguide based on (Yb,Nb):RTP/RTP(001) system for cell counting. , 2016, , .		2
392	Fabrication of optical waveguides in RbTiOPO₄single crystals by using different techniques. Proceedings of SPIE, 2016, , .	0.8	2
393	Light confinement in a 90Â° double high mesa slot bend waveguide. Journal of Physics: Conference Series, 2018, 1096, 012126.	0.3	2
394	Plasmon excitation of gold split-ring array: spectral studies and numerical simulation. Laser Physics Letters, 2019, 16, 066007.	0.6	2
395	Evaluating the influence of the refractive index dispersion of a harmonic lens on focusing properties. , 2020, , .		2
396	DESIGN LENSES FORMING PARAXIAL LONGITUDINAL DISTRIBUTION ACCORDING TO THEIR SPATIAL SPECTRA. Computer Optics, 2013, 37, 193-202.	1.3	2

#	Article	IF	Citations
397	FORMATION OF SPIRAL INTENSITY BY BINARY VORTICAL AXICON. Computer Optics, 2014, 38, 237-242.	1.3	2
398	Experimental investigation of complex circular Airy beam characteristics. , 2018, , .		2
399	Forming of periodic three-dimensional intensity distributions based on superposition of spherical harmonics. , 2020, , .		2
400	Breaking the symmetry to structure light. , 2021, , .		2
401	Phase optical elements for widening a minimum diffraction spot. Optics and Laser Technology, 1995, 27, 235-240.	2.2	1
402	<title>Information technology of remotely sensed optical image analysis on the basis of multiscale conceptions integration</title>. , 2007, , .		1
403	DOE-based optical scheme for the universal generation and conversion of inhomogeneously polarized laser beams. , 2009, , .		1
404	Sandwich-typed resonator cavity based on a regular photonic crystal nanobeam. Journal of Physics: Conference Series, 2014, 490, 012167.	0.3	1
405	Diffraction of Bessel laser beams on a birefringent object. Proceedings of SPIE, 2014, , .	0.8	1
406	Experimental generation of the longitudinal electric field component on the optical axis with high-numerical-aperture binary axicons. , 2015, , .		1
407	Forming near-field helical intensity using a binary vortical axicon. Proceedings of SPIE, 2015, , .	0.8	1
408	Transformation of Bessel beams passing through uniaxial y-cut crystal. , 2015, , .		1
409	Anchored multi-DOF MEMS gyroscope having robust drive mode. , 2016, , .		1
410	Micro-taper as focusing or scattering optical element. AIP Conference Proceedings, 2016, , .	0.3	1
411	Calculation of eigenfunctions of bounded waveguide with quadratic refractive index. Journal of Physics: Conference Series, 2016, 735, 012002.	0.3	1
412	Optomechanical control of transforming Bessel beams in a c-cut of lithium niobate. Journal of Physics: Conference Series, 2016, 735, 012059.	0.3	1
413	Propagation of vortex eigenfunctions of bounded Hankel transform in a parabolic fiber. , 2016, , .		1
414	Acceleration characterization of dual purpose gyro/accelerometer device using MS3110 differential capacitive read out IC. , 2016, , .		1

#	Article	IF	Citations
415	Fabrication of silicon slanted grating by using modified thermal deposition technique to enhance fiber-to-chip coupling. , 2016, , .		1
416	Comparison of propagation of vortex and non-vortex laser beams in a random medium. , 2017, , .		1
417	Generation of closed-packed optical vortex beams using two-level pure-phase diffractive multiplexer. AIP Conference Proceedings, 2017, , .	0.3	1
418	Investigation of vortex laser beam injection into an optical fiber. Journal of Physics: Conference Series, 2017, 917, 062035.	0.3	1
419	Modeling of a narrow band pass filter for Bathymetry light detection and ranging (LIDAR) system. Journal of Physics: Conference Series, 2017, 917, 062004.	0.3	1
420	Comparative study of impact of random environment on individual and combined Laguerre-Gauss modes. Journal of Physics: Conference Series, 2018, 1038, 012070.	0.3	1
421	Subwavelength Diffraction Grating with Continuous Ridges for Inverse Energy Flux Generation. , 2019, , .		1
422	Metalens for creation of the longitudinally polarized photonic needle. Journal of Physics: Conference Series, 2019, 1368, 022008.	0.3	1
423	Field quantization in a waveguide with freeform cladding. , 2021, , .		1
424	Enlightening Aragoâ€“Poisson spot using structured light. Applied Optics, 2021, 60, 7432.	0.9	1
425	Generation and selection of laser beams represented by a superposition of two angular harmonics. Journal of Modern Optics, 2004, 51, 761-773.	0.6	1
426	Light field decomposition in angular harmonics by means of diffractive optics. Journal of Modern Optics, 1998, 45, 1495-1506.	0.6	1
427	ANALYSIS OF THE AXIAL DISTRIBUTION OF A TIGHTLY FOCUSED BEAM WITH DIFFERENT POLARIZATIONS. Computer Optics, 2013, 37, 59-68.	1.3	1
428	Theoretical investigation of vortex Gaussian beams focusing along the axis of the crystal. VESTNIK of the Samara State Aerospace University, 2015, 14, 190.	0.1	1
429	STUDY OF SUBWAVELENGTH LOCALIZATION OF A RADIATION BY FORMING CLOSELY SPACED SINGULAR LINES USING OF SUBWAVELENGTH FEATURES OF THE DIELECTRIC MICRO-RELIEF. Computer Optics, 2013, 37, 426-430.	1.3	1
430	Comparative modelling of laser beam propagation in a uniaxial crystal based on integral operators. Vestnik of Samara University: Aerospace and Mechanical Engineering, 2014, , 238.	0.0	1
431	Increasing Depth of Field of Tilted Diffractive Lens in Image Classification Task. , 2020, , .		1
432	Vectorial beam generation with a conical refractive surface. Computer Optics, 2021, 45, .	1.3	1

#	Article	IF	Citations
433	Performance Comparison of Silicon- and Gallium-Nitride-Based MOSFETs for a Power-Efficient, DC-to-DC Flyback Converter. Electronics (Switzerland), 2022, 11, 1222.	1.8	1
434	Simultaneous Detection of Modal Composition and Wavelength of OAM Fields Using a Hexagonal Vortex Filter. , 2022, , .		1
435	<title>Phase diffractive optical elements for the Hadamard expansion</title>. , 1996, , .		0
436	<title>Selection of angular harmonics by the use of diffractive optical elements</title>. , 2001, 4403, 271.		0
437	Optical manipulators based on laser beams with nonzero orbital momentum. , 0, , .		0
438	Generating Gaussian beams using energy-efficient phase DOEs. , 2003, 5067, 7.		0
439	A method of calculating the diffraction and refraction of radiation at a dielectric cylinder. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2004, 71, 472.	0.2	0
440	Analysis of angular harmonics-containing laser beam regeneration after an obstacle. , 2005, , .		0
441	Analysis of angular harmonics-containing laser beams regeneration after an obstacle. , 2005, 5772, 42.		0
442	Rotation of spherical microobjects in the hyper-geometric beams. Optical Memory and Neural Networks (Information Optics), 2008, 17, 173-182.	0.4	0
443	Investigation of focusing of the fundamental linearly polarized mode using microrelief on the end of an optical fiber. , 2014, , .		0
444	Diffraction of Gaussian beams by micro-cylinders with sub-wavelength radius. , 2015, , .		0
445	Laser beam polarization type identification in the tight focus model. Pattern Recognition and Image Analysis, 2015, 25, 442-455.	0.6	0
446	The compact converter of Bessel beams of zero and second orders on the basis of z-cut lithium niobate. Journal of Physics: Conference Series, 2016, 741, 012138.	0.3	0
447	Electro-optical converter of zero-order and second-order Bessel laser beams for the photolithography systems. , 2016, , .		0
448	Axicons for power conversion efficiency enhancement in solar cells for the visible spectrum. Journal of Physics: Conference Series, 2016, 741, 012102.	0.3	0
449	Experimental investigation of spiral beam formation by binary spiral axicons. AIP Conference Proceedings, 2016, , .	0.3	0
450	Design and simulation of non-resonant 1-DOF drive mode and anchored 2-DOF sense mode gyroscope for implementation using UV-LIGA process. , 2016, , .		0

#	Article	IF	Citations
451	Design of diffractive micro-patterns with weak wavelength dependence. , 2016, , .		0
452	Generation of cylindrical vector beams on the basis of uniaxial crystals and various types of DOEs. , 2016, , .		0
453	Diffractive polarization illuminator for a two-axis fiber-optic angle sensor. Proceedings of SPIE, 2017, , .	0.8	0
454	Modeling of nebula viewing broadband and narrowband filters based on TiO₂-SiO₂multilayers. Proceedings of SPIE, 2017, , .	0.8	0
455	Polarization conversion at sharp focusing of vector vortex beams. , 2017, , .		0
456	Study of conservation of the topological charge of vortex beams transferring in a random media. , 2017, , .		0
457	Propagation modeling of vortex generalized airy beams in parabolic fiber. , 2017, , .		0
458	Transverse structure and energy deposition control by amplitude and phase beam regularization in multifilamentation regime. , 2018, , .		0
459	Cadmium telluride thin-film response for a laser beam illumination. Journal of Optics (India), 2019, 48, 81-86.	0.8	0
460	Subwavelength gratings for creation and focusing of cylindrical vector beams. Journal of Physics: Conference Series, 2020, 1461, 012026.	0.3	0
461	Modeling the propagation of sets of autofocusing laser beams. , 2021, , .		0
462	Study of Superoscillating Functions Application to Overcome the Diffraction Limit with Suppressed Sidelobes. Optics, 2021, 2, 155-168.	0.6	0
463	Formation of light balls on the basis of interference of oncoming fine-focused beams with different polarizations. Vestnik of Samara University: Aerospace and Mechanical Engineering, 2014, , 208.	0.0	0
464	Nonparaxial iterative calculation of diffractive optical elements focusing in a subwave light spot. Vestnik of Samara University: Aerospace and Mechanical Engineering, 2015, , 122.	0.0	0
465	Investigation of focusing features of a spiral binary axicon. , 2018, , .		0
466	Simulation of vortex laser beams superposition propagation through a random optical environment. , 2018, , .		0
467	Diffractive optical elements for generation and transformation of structured laser beams. , 2018, , .		0
468	Analysis of the amplitude on optical axis at the incidence of the conical wave on an astigmatic lens. , 2019, , .		0

#	Article	IF	Citations
469	Experimental investigation of nonlinear spiral phase plates. , 2020, , .		0
470	Formation of microstructures in an azopolymer using paraxial vortex Gaussian beams. , 2020, , .		0
471	Optical Beams: Polarization Conversion of Focused Vortex Beams. , 2020, , 341-382.		0
472	Femtosecond multifilament arrays in air using diffraction optical elements. , 2020, , .		0
473	Structural and Polarization Transformations of Laser Beams in Anisotropic Crystals. Optoelectronics, Instrumentation and Data Processing, 2020, 56, 170-175.	0.2	0
474	Robust multifilament arrays using Dammann phase grating. , 2020, , .		0
475	Diffractive optics technologies for the control of high-power terahertz laser beams. , 2020, , .		0
476	Propagation Invariant Features of Aberration Laser Beams in a Turbulent Media. , 2021, , .		0
477	Modeling the propagation of autofocusing beams in a linear and nonlinear optical medium. , 2021, , .		0
478	Optically formed Hermite-Gaussian mode classification via convolutional neural network. , 2021, , .		0
479	Cycle degree: another characteristic of the vortex phase distribution. , 2021, , .		0