

Alexander G Poleshchuk

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

505
citations

840776

11
h-index

713466

21
g-index

51
all docs

51
docs citations

51
times ranked

184
citing authors

#	ARTICLE	IF	CITATIONS
1	Polar coordinate laser pattern generator for fabrication of diffractive optical elements with arbitrary structure. <i>Applied Optics</i> , 1999, 38, 1295.	2.1	146
2	Asphere testing with a Fizeau interferometer based on a combined computer-generated hologram. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2006, 23, 172.	1.5	39
3	Combined computer-generated hologram for testing steep aspheric surfaces. <i>Optics Express</i> , 2009, 17, 5420.	3.4	27
4	Study of the spatial resolution of laser thermochemical technology for recording diffraction microstructures. <i>Quantum Electronics</i> , 2011, 41, 631-636.	1.0	24
5	Laser technologies in micro-optics. Part 1. Fabrication of diffractive optical elements and photomasks with amplitude transmission. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2017, 53, 474-483.	0.6	22
6	<title>Processing parameter optimization for thermochemical writing of DOEs on chromium films</title>. , 1997, 3010, 168.		21
7	Local Laser Oxidation of Thin Metal Films: Ultra-resolution in Theory and in Practice. <i>Journal of Laser Micro Nanoengineering</i> , 2008, 3, 201-205.	0.1	18
8	Laser thermochemical technology for synthesizing optical diffraction elements utilizing chromium films. <i>Soviet Journal of Quantum Electronics</i> , 1985, 15, 494-497.	0.1	16
9	3D Optical Measuring Systems and Laser Technologies for Scientific and Industrial Applications. <i>Measurement Science Review</i> , 2013, 13, 322-328.	1.0	15
10	METHODS FOR ON-LINE TESTING OF CHARACTERISTICS OF DIFFRACTIVE AND CONFORMAL OPTICAL ELEMENTS DURING THE MANUFACTURING PROCESS. <i>Computer Optics</i> , 2016, 40, 818-829.	2.2	13
11	Optical Measuring and Laser Technologies for Scientific and Industrial Applications. <i>International Journal of Automation Technology</i> , 2015, 9, 515-524.	1.0	12
12	Efficient tight focusing of laser beams optimally matched to their thin-film linear-to-radial polarization conversion: Method, implementation, and field near focus. <i>Optics Communications</i> , 2018, 407, 217-226.	2.1	11
13	Accuracy potential of circular laser writing of DOEs. , 1998, , .		10
14	HARTMANN WAVEFRONT SENSOR BASED ON MULTIELEMENT AMPLITUDE MASKS WITH APODIZED APERTURES. <i>Computer Optics</i> , 2014, 38, 695-703.	2.2	10
15	Diffractive light attenuators with variable transmission. <i>Journal of Modern Optics</i> , 1998, 45, 1513-1522.	1.3	9
16	Shack-Hartmann sensor based on a low-aperture off-axis diffraction lens array. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2009, 45, 161-170.	0.6	9
17	Microstructuring of optical surfaces: Technology and device for direct laser writing of diffractive structures. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2010, 46, 171-180.	0.6	9
18	Efficient testing of segmented aspherical mirrors by use of a reference plate and computer-generated holograms II Case study, error analysis, and experimental validation. <i>Applied Optics</i> , 2004, 43, 5313.	2.1	8

#	ARTICLE	IF	CITATIONS
19	<title>Fabrication of diffractive optical elements by direct laser-writing with circular scanning</title>. , 1995, 2363, 290.		7
20	Laser-Induced Local Oxidation of Thin Metal Films: Physical Fundamentals and Applications. Springer Series in Materials Science, 2014, , 149-171.	0.6	7
21	<title>Application of gray-scale LDW-glass masks for fabrication of high-efficiency DOEs</title>. , 1999, 3633, 129.		6
22	Etch depth mapping of phase binary computer-generated holograms by means of specular spectroscopic scatterometry. Optical Engineering, 2013, 52, 091722.	1.0	6
23	Direct laser writing of gray-scale microimages with a large dynamic range in chromium films. Optoelectronics, Instrumentation and Data Processing, 2015, 51, 287-292.	0.6	6
24	<title>Fabrication of phase structures with continuous and multilevel profile for diffraction optics</title>. , 1991, , .		5
25	Modernizing the optical divider production of the Ural Optomechanical Factory on the basis of up-to-date laser-computer and photolithographic technologies. Journal of Optical Technology (A) Tj ETQq1 1 0.784014 rgBT k Overlock		5
26	Methods of improving the accuracy of operation of an autofocus in a circular laser writing system. Optoelectronics, Instrumentation and Data Processing, 2010, 46, 87-95.	0.6	5
27	Aspherical wavefront shaping with combined computer generated holograms. Optical Engineering, 2013, 52, 091709.	1.0	5
28	Diffraction technique for testing the resolution and sensitivity of Hartmann and Shackâ€“Hartmann sensors. Optics Letters, 2015, 40, 5050.	3.3	4
29	Dynamic correction of the laser beam coordinate in fabrication of large-sized diffractive elements for testing aspherical mirrors. Optoelectronics, Instrumentation and Data Processing, 2017, 53, 255-263.	0.6	4
30	<title>Requirements and approaches to adapting laser writers for fabrication of gray-scale masks</title>. , 2001, , .		3
31	Method for increasing the accuracy of wavefront reconstruction from a set of interferograms. Optoelectronics, Instrumentation and Data Processing, 2011, 47, 593-601.	0.6	3
32	Alignment of the writing beam with the diffractive structure rotation axis in synthesis of diffractive optical elements in a polar coordinate system. Optoelectronics, Instrumentation and Data Processing, 2017, 53, 123-130.	0.6	3
33	Laser technologies in diffractive optics. , 1999, , .		2
34	Absolute calibration of null correctors using dual computer-generated holograms. Proceedings of SPIE, 2007, , .	0.8	2
35	Three-dimensional inspection of grid spacers of fuel assemblies of nuclear reactors using diffractive optical elements. Optoelectronics, Instrumentation and Data Processing, 2008, 44, 111-117.	0.6	2
36	Diffractive variable attenuator for femtosecond laser radiation control. Applied Optics, 2009, 48, 708.	2.1	2

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37	Multibeam laser writing of diffractive optical elements. Optoelectronics, Instrumentation and Data Processing, 2012, 48, 327-333.	0.6	2
38	Manufacturing and certification of a diffraction corrector for controlling the surface shape of the six-meter main mirror of the Big Azimuthal Telescope of the Russian Academy of Sciences. Optoelectronics, Instrumentation and Data Processing, 2017, 53, 517-523.	0.6	2
39	Techniques for formation of the surface profile of diffractive optical elements. Optics and Lasers in Engineering, 1998, 29, 289-306.	3.8	1
40	<title>Application of diffractive optical elements in laser metrology</title>. , 2002, 4900, 841.		1
41	Diffractive attenuators of laser radiation: Fabrication and optical characteristics. Optoelectronics, Instrumentation and Data Processing, 2013, 49, 72-80.	0.6	1
42	Aperture apodization on regular gratings with variable transmission in the zero diffraction order. Optoelectronics, Instrumentation and Data Processing, 2013, 49, 598-607.	0.6	1
43	Diffractive optics for precision alignment of Euclid space telescope optics (Conference Presentation). , 2017, , .		1
44	Data readout from compact disks by a laser pickup with diffraction optics. Soviet Journal of Quantum Electronics, 1988, 18, 1336-1339.	0.1	0
45	Excitation of luminescence by a Bessel radiation beam for detection of radiophotoluminescent images with a high spatial resolution. Quantum Electronics, 2001, 31, 811-813.	1.0	0
46	<title>Compact absolute shaft angular encoder based on diffractive optical elements</title>. , 2002, , .		0
47	Testing optical surfaces by high-precision diffractive null lenses with integrated reference surface. , 2003, , .		0
48	Laser illuminator based on diffraction elements for training systems. Optoelectronics, Instrumentation and Data Processing, 2012, 48, 87-92.	0.6	0
49	The use of diffractive imitator optics as calibration artefacts. , 2015, , .		0
50	Application of the Shackâ€Hartmann Wavefront Sensor for Monitoring the Parameters of a Supersonic Gas Jet. Optoelectronics, Instrumentation and Data Processing, 2018, 54, 19-25.	0.6	0
51	Combined CGH with Aperture Divided into Angular Sectors for Null Corrector Certification. , 2010, , .		0