Evgeni A Bezus

List of Publications by Year
in descending order

104	1,902	236925	289244
papers	citations	25 h-index	40 g-index

107	107	107	769
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optical computation of the Laplace operator using phase-shifted Bragg grating. Optics Express, 2014, 22, 25084.	3.4	104
2	Spatial differentiation of optical beams using phase-shifted Bragg grating. Optics Letters, 2014, 39, 1278.	3.3	99
3	First-order optical spatial differentiator based on a guided-mode resonant grating. Optics Express, 2018, 26, 10997.	3.4	78
4	Bound states in the continuum and high-Q resonances supported by a dielectric ridge on a slab waveguide. Photonics Research, 2018, 6, 1084.	7.0	73
5	Integrated flat-top reflection filters operating near bound states in the continuum. Photonics Research, 2019, 7, 1314.	7.0	62
6	Scattering suppression in plasmonic optics using a simple two-layer dielectric structure. Applied Physics Letters, 2011, 98, .	3.3	57
7	Design of diffractive lenses for focusing surface plasmons. Journal of Optics (United Kingdom), 2010, 12, 015001.	2.2	56
8	Magnetooptical effects in the metal-dielectric gratings. Optics Communications, 2007, 278, 104-109.	2.1	55
9	Scattering in elements of plasmon optics suppressed by two-layer dielectric structures. Technical Physics Letters, 2011, 37, 1091-1095.	0.7	55
10	Low-scattering surface plasmon refraction with isotropic materials. Optics Express, 2014, 22, 13547.	3.4	55
11	Coupled-wave formalism for bound states in the continuum in guided-mode resonant gratings. Physical Review A, 2019, 99, .	2.5	54
12	Evanescent-wave interferometric nanoscale photolithography using guided-mode resonant gratings. Microelectronic Engineering, 2011, 88, 170-174.	2.4	53
13	Design of an optical element forming an axial line segment for efficient LED lighting systems. Optics Express, 2013, 21, 28651.	3.4	52
14	Spatial optical integrator based on phase-shifted Bragg gratings. Optics Communications, 2015, 338, 457-460.	2.1	49
15	Spatial integration and differentiation of optical beams in a slab waveguide by a dielectric ridge supporting high-Q resonances. Optics Express, 2018, 26, 25156.	3.4	48
16	Interference pattern generation in evanescent electromagnetic waves for nanoscale lithography using waveguide diffraction gratings. Quantum Electronics, 2011, 41, 759-764.	1.0	47
17	Designing double freeform surfaces for collimated beam shaping with optimal mass transportation and linear assignment problems. Optics Express, 2018, 26, 24602.	3.4	43
18	Linear assignment problem in the design of freeform refractive optical elements generating prescribed irradiance distributions. Optics Express, 2018, 26, 27812.	3.4	42

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19	Analytical source-target mapping method for the design of freeform mirrors generating prescribed 2D intensity distributions. Optics Express, 2016, 24, 10962.	3.4	34
20	Bound states in the continuum and strong phase resonances in integrated Gires-Tournois interferometer. Nanophotonics, 2020, 9, 83-92.	6.0	31
21	Design of diffractive lenses operating at several wavelengths. Optics Express, 2020, 28, 11705.	3.4	30
22	Two-groove narrowband transmission filter integrated into a slab waveguide. Photonics Research, 2018, 6, 61.	7.0	29
23	Planar two-groove optical differentiator in a slab waveguide. Optics Express, 2017, 25, 22328.	3.4	28
24	Optimal mass transportation and linear assignment problems in the design of freeform refractive optical elements generating far-field irradiance distributions. Optics Express, 2019, 27, 13083.	3.4	28
25	Analytical design of freeform optical elements generating an arbitrary-shape curve. Applied Optics, 2013, 52, 2521.	1.8	26
26	Diffraction gratings for generating varying-period interference patterns of surface plasmons. Journal of Optics, 2008, 10, 095204.	1.5	25
27	Suppression of the spectral selectivity of two-layer phase-relief diffraction structures. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2009, 106, 621-626.	0.6	25
28	On the use of the supporting quadric method in the problem of the light field eikonal calculation. Optics Express, 2015, 23, 19605.	3.4	23
29	Spatial differentiation of Bloch surface wave beams using an on-chip phase-shifted Bragg grating. Journal of Optics (United Kingdom), 2016, 18, 115006.	2.2	23
30	Phase modulation of Bloch surface waves with the use of a diffraction microrelief at the boundary of a one-dimensional photonic crystal. JETP Letters, 2014, 99, 63-66.	1.4	22
31	An Optical Differentiator Based on a Three-Layer Structure with a W-Shaped Refractive Index Profile. Journal of Experimental and Theoretical Physics, 2018, 127, 202-209.	0.9	22
32	Multifocal diffractive lens generating several fixed foci at different design wavelengths. Optics Express, 2018, 26, 4698.	3.4	22
33	Additive manufacturing of a trifocal diffractive-refractive lens. Optics Communications, 2016, 372, 235-240.	2.1	21
34	Variational approach to calculation of light field eikonal function for illuminating a prescribed region. Optics Express, 2017, 25, 26378.	3.4	21
35	Inverse Faraday effect in plasmonic heterostructures. Journal of Physics: Conference Series, 2010, 200, 092003.	0.4	20
36	Resonant properties of composite structures consisting of several resonant diffraction gratings. Optics Express, 2019, 27, 25814.	3.4	20

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37	On the use of the supporting quadric method in the problem of designing double freeform surfaces for collimated beam shaping. Optics Express, 2020, 28, 22642.	3.4	20
38	Phase-shifted Bragg gratings for Bloch surface waves. Optics Express, 2015, 23, 27034.	3.4	19
39	Optimization method for designing double-surface refractive optical elements for an extended light source. Optics Express, 2020, 28, 24431.	3.4	18
40	Grating-assisted generation of 2D surface plasmon interference patterns for nanoscale photolithography. Optics Communications, 2010, 283, 2020-2025.	2.1	17
41	Hybrid design of diffractive optical elements for optical beam shaping. Optics Express, 2021, 29, 31875.	3.4	17
42	Application of nanoimprinting technique for fabrication of trifocal diffractive lens with sine-like radial profile. Journal of Biomedical Optics, 2015, 20, 025008.	2.6	16
43	Spatial differentiation of optical beams using a resonant metal-dielectric-metal structure. Journal of Optics (United Kingdom), 2021, 23, 023501.	2.2	16
44	Design and fabrication of freeform mirrors generating prescribed far-field irradiance distributions. Applied Optics, 2020, 59, 5006.	1.8	16
45	Fabrication of three-focal diffractive lenses by two-photon polymerization technique. Applied Physics A: Materials Science and Processing, 2012, 107, 525-529.	2.3	14
46	Near-wavelength diffraction gratings for surface plasmon polaritons. Optics Letters, 2015, 40, 4935.	3.3	13
47	Supporting quadric method for designing refractive optical elements generating prescribed irradiance distributions and wavefronts. Optics Express, 2021, 29, 26304.	3.4	13
48	Integrated diffraction gratings on the Bloch surface wave platform supporting bound states in the continuum. Nanophotonics, 2021, 10, 4331-4340.	6.0	13
49	Resonant photonic-crystal structures with a diffraction grating for refractive index sensing. Computer Optics, 2016, 40, 164-172.	2.2	12
50	Multifocal spectral diffractive lens. Computer Optics, 2018, 42, 219-226.	2.2	10
51	Optimal mass transportation problem in the design of freeform optical elements generating far-field irradiance distributions for plane incident beam. Applied Optics, 2019, 58, 9131.	1.8	9
52	Splitting a terahertz surface plasmon polariton beam using Kapton film. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1461.	2.1	9
53	Integrated Giresâ€“Tournois interferometers based on evanescently coupled ridge resonators. Optics Letters, 2020, 45, 5065.	3.3	8
54	ON THE RELATION BETWEEN THE PROPAGATION CONSTANT OF BLOCH SURFACE WAVES AND THE THICKNESS OF THE UPPER LAYER OF A PHOTONIC CRYSTAL. Computer Optics, 2018, 42, 22-27.	2.2	8

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55	Faraday effect enhancement in metal-dielectric plasmonic systems. , 2007, 6581, 158.		7
56	Stable algorithm for the computation of the electromagnetic field distribution of eigenmodes of periodic diffraction structures. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 2307.	1.5	7
57	Designing stigmatic lenses with minimal Fresnel losses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2021, 38, 855.	1.5	7
58	Tunable Optical Nanocavity of Iron-garnet with a Buried Metal Layer. Materials, 2015, 8, 3012-3023.	2.9	6
59	Bragg gratings with parasitic scattering suppression for surface plasmon polaritons. Computer Optics, 2018, 42, 800-806.	2.2	6
60	Formation of high-frequency two-dimensional interference patterns of surface plasmon polaritons. JETP Letters, 2013, 98, 317-320.	1.4	5
61	Use of aperiodic Fourier modal method for calculating complex-frequency eigenmodes of long-period photonic crystal slabs. Optics Express, 2017, 25, 27298.	3.4	5
62	Formulation of the inverse problem of calculating the optical surface for an illuminating beam with a plane wavefront as the Mongeâ€“Kantorovich problem. Computer Optics, 2019, 43, .	2.2	5
63	Method for calculating the eikonal function and its application to design of diffractive optical elements for optical beam shaping. Computer Optics, 2022, 46, .	2.2	5
64	Magneto-optical effects at the Rayleigh-Wood and plasmon anomalies. , 2007, 6728, 107.		4
65	Diffraction elements in the optical systems of modern optoelectronics. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2009, 76, 395.	0.4	4
66	Thin and thick dielectric films for THz surface plasmon control. Laser Physics, 2013, 23, 056008.	1.2	4
67	Antireflection layers in low-scattering plasmonic optics. Photonics and Nanostructures - Fundamentals and Applications, 2015, 14, 101-105.	2.0	4
68	Multiscale approach and linear assignment problem in designing mirrors generating far-field irradiance distributions. Optics Letters, 2020, 45, 3549.	3.3	4
69	Spectrally selective near-field enhancement in a photonic crystal structure with a diffraction grating. Computer Optics, 2015, 39, 462-468.	2.2	4
70	Refraction and phase modulation of surface electromagnetic waves propagating at the boundary of a one-dimensional photonic crystal. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 137 T	0.6	3
71	Optical differentiator based on a trilayer metal-dielectric structure. Computer Optics, 2021, 45, .	2.2	3
72	Design of a stigmatic lens implementing a required ray mapping. Applied Optics, 2021, 60, 9138.	1.8	3

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73	Generation of high-frequency interference patterns of evanescent electromagnetic waves at Fabry-Perot resonances in dielectric photonic crystals. Computer Optics, 2017, 41, 322-329.	2.2	3
74	Analytical design of flat-top transmission filters composed of several resonant structures. Optics Express, 2019, 27, 26786.	3.4	3
75	Generation of interference patterns of evanescent electromagnetic waves at Fabry-Perot resonances of 1D photonic crystal modes. Procedia Engineering, 2017, 201, 42-47.	1.2	2
76	Splitting of terahertz surface plasmons by polyimide films. Journal of Physics: Conference Series, 2018, 1092, 012040.	0.4	2
77	Broadband mirrors for surface plasmon polaritons using integrated high-contrast diffraction gratings. Optics Express, 2021, 29, 4022.	3.4	2
78	Supporting Quadric Method for Designing Freeform Mirrors That Generate Prescribed Near-Field Irradiance Distributions. Photonics, 2022, 9, 118.	2.0	2
79	Field localization of a broadband THz surface plasmon. , 2010, , .		1
80	Designing diffraction optical elements for the focusing of plasmon modes. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2010, 77, 459.	0.4	1
81	Insulatorâ€"insulatorâ€"metal plasmonic waveguide for parasitic scattering suppression in plasmonic optics. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 1573-1575.	0.6	1
82	Generation of 1D interference patterns of Bloch surface waves. Technical Physics, 2016, 61, 1389-1394.	0.7	1
83	Optimal mass transportation problem in the design of freeform optical elements generating far-field irradiance distributions for plane incident beam. , 2020, , .		1
84	Propagation of broadband THz surface plasmon through thick and thin polymer layers. , 2012, , .		0
85	Magneto-plasmonic crystals with buried metal layers for high speed optical switching. , 2014, , .		0
86	On-chip near-wavelength diffraction gratings for surface electromagnetic waves. , 2017, , .		0
87	On-chip phase-shifted Bragg gratings and their application for spatiotemporal transformation of Bloch surface waves. , 2017, , .		0
88	Low-scattering Bragg gratings for surface plasmon polaritons. Journal of Physics: Conference Series, 2018, 1096, 012022.	0.4	0
89	High-Q resonances supported by a single dielectric ridge on the surface of a slab waveguide. Journal of Physics: Conference Series, 2018, 1092, 012024.	0.4	0
90	Integrated W-type structure for spectral and spatial filtering of optical radiation propagating in a slab waveguide. Journal of Physics: Conference Series, 2018, 1092, 012010.	0.4	0

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91	Polyimide Splitters for Terahertz Surface Plasmons. , 2018, , .		0
92	Development of a software package for modeling and analysis of light diffraction on periodic structures of nanophotonics by the rigorous coupled-wave analysis. Journal of Physics: Conference Series, 2019, 1368, 022058.	0.4	0
93	Bound states in the continuum in abruptly terminated dielectric slab waveguides. Journal of Physics: Conference Series, 2020, 1461, 012204.	0.4	0
94	Optical Properties of Resonant Diffraction Gratings with a Slowly Varying Period. , 2020, , .		0
95	Diffraction-grating-based Bloch surface wave refractive index sensors. , 2016, , .		0
96	A simple three-layer dielectric structure for spatiotemporal differentiation of optical signals. , 2018, , .		0
97	Parasitic Scattering of Bloch Surface Waves. , 2020, , .		0
98	Integrated Spectral Filters Consisting of Several Dielectric Ridges on the Surface of a Slab Waveguide. , 2020, , .		0
99	All-dielectric filters with a butterworth line-shape composed of several resonant structures. AIP Conference Proceedings, 2020, , .	0.4	0
100	Supporting Quadric Method for Designing Double-Surface Freeform Optical Elements Generating Prescribed Irradiance Distributions and Wavefronts. , 2021, , .		0
101	Giresâ€“Tournois Interferometers for Modes of Dielectric Slab Waveguides. , 2021, , .		0
102	Suppression of Parasitic Scattering of Surface Plasmon Polariton Propagating over a Rectangular Step. , 2021, , .		0
103	Optical Differentiator Based on a Three-Layer Metal-Dielectric Structure. , 2021, , .		0
104	Designing stigmatic lenses with minimal Fresnel losses: erratum. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2022, 39, 152.	1.5	0