

Boris A Knyazev

List of Publications by Year in descending order

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99
papers

1,192
citations

471061

17
h-index

395343

33
g-index

99
all docs

99
docs citations

99
times ranked

709
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical Optimization of Refractive Index Sensors Based on Diffraction Gratings with High Aspect Ratio in Terahertz Range. <i>Sensors</i> , 2022, 22, 172.	2.1	7
2	Holography with high-power CW coherent terahertz source: optical components, imaging, and applications. <i>Light Advanced Manufacturing</i> , 2022, 3, 1.	2.2	3
3	Diamond diffractive lens with a continuous profile for powerful terahertz radiation. <i>Optics Letters</i> , 2021, 46, 340.	1.7	8
4	Silicon diffractive optical element with piecewise continuous profile to focus high-power terahertz radiation into a square area. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, B9.	0.9	5
5	Vortex surface plasmon polaritons on a cylindrical waveguide: generation, propagation, and diffraction. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 10LT01.	1.0	4
6	“Perfect” Terahertz Vortex Beams Formed Using Diffractive Axicons and Prospects for Excitation of Vortex Surface Plasmon Polaritons. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 717.	1.3	11
7	First Generation of Vortex Plasmons via Vortex-Beam End-Fire Coupling. , 2021, , .		0
8	Experimental Investigation of Self-Healing of Terahertz Vortex Beams. , 2021, , .		0
9	Observation of Acousto-Optic Diffraction of Terahertz Radiation in Liquefied Sulfur Hexafluoride at Room Temperature. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2020, 10, 44-50.	2.0	7
10	Silicon kinoform cylindrical lens with low surface roughness for high-power terahertz radiation. <i>Optics and Laser Technology</i> , 2020, 123, 105953.	2.2	17
11	Diffraction of Bessel beams on 2D amplitude gratings—a new branch in the Talbot effect study. <i>Journal of Optics (United Kingdom)</i> , 2020, 22, 065603.	1.0	18
12	Splitting a terahertz surface plasmon polariton beam using Kapton film. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 1461.	0.9	9
13	Numerical simulation of interaction of terahertz waves with metal diffraction gratings. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	0
14	TERAHERTZ PHOTONICS AND SPECTROSCOPY ON NOVOSIBIRSK FREE ELECTRON LASER. <i>Interexpo GEO-Siberia</i> , 2020, 8, 3-26.	0.0	0
15	THz gas sensing based on subwavelength rectangular metal grating in attenuated total reflection configuration. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	1
16	Terahertz surface plasmon resonance microscopy based on ghost imaging with pseudo-thermal speckle light. , 2020, , .		2
17	Experiments on Generation of Vortex Surface Plasmon Polaritons on Plane and Cylindrical Conductors in Mid-Infrared and THz Ranges. , 2020, , .		1
18	Location of objects beyond the horizon line by terahertz surface plasmons. , 2019, , .		0

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19	Diffraction of Terahertz Gaussian and Bessel Beams on 2D Gratings with Wavelength-Scale Openings. , 2019, , .		1
20	An Ellipsometric Technique with an ATR Module and a Monochromatic Source of Radiation for Measurement of Optical Constants of Liquids in the Terahertz Range. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 200-209.	1.2	8
21	Propagation of terahertz surface plasmon polaritons around a convex metal–dielectric interface. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1684.	0.9	18
22	Single-color pump-probe setup at the NovoFEL facility for measurements of carrier relaxation dynamics in semiconductors. EPJ Web of Conferences, 2018, 195, 06007.	0.1	0
23	Reducing Losses of Terahertz Surface Plasmons by Submicron Dielectric Coatings. , 2018, , .		0
24	Polyimide Splitters for Terahertz Surface Plasmons. , 2018, , .		0
25	Holography as an ATR THz imaging technique. , 2018, , .		1
26	Terahertz Switching Focuser Based on Thin Film Vanadium Dioxide Zone Plate. Journal of Infrared, Millimeter, and Terahertz Waves, 2018, 39, 1203-1210.	1.2	11
27	Quasi-Talbot effect with vortex beams and formation of vortex beamlet arrays. Optics Express, 2018, 26, 14174.	1.7	33
28	High-power Bessel beams with orbital angular momentum in the terahertz range. Physical Review A, 2017, 96, .	1.0	49
29	Transformation of mode contains of novosibirsk FEL radiation and focusing in determined areas and volumes. , 2017, , .		0
30	Growth of terahertz surface plasmon propagation length due to thin-layer dielectric coating. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 2196.	0.9	42
31	First Terahertz-range Experiments on Pump – Probe Setup at Novosibirsk free Electron Laser. Physics Procedia, 2016, 84, 152-156.	1.2	12
32	Reflection of terahertz surface plasmons from plane mirrors and transparent plates. , 2016, , .		1
33	Novosibirsk Free Electron Laser as a User Facility. Physics Procedia, 2016, 84, 27-34.	1.2	12
34	Simulation of Propagation and Transformation of THz Bessel Beams with Orbital Angular Momentum. Physics Procedia, 2016, 84, 175-183.	1.2	4
35	Holography as imaging technique for the THz range. , 2016, , .		2
36	Transmission of high-power terahertz beams with orbital angular momentum through atmosphere. , 2016, , .		9

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37	Fabrication and characterization of diffractive phase plates for forming high-power terahertz vortex beams using free electron laser radiation. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	24
38	Focusing of Novosibirsk Free Electron Laser (NovoFEL) radiation into paraxial segment. <i>Journal of Modern Optics</i> , 2016, 63, 1051-1054.	0.6	21
39	Terahertz pump â€” Terahertz probe system at Novosibirsk free electron laser: Commissioning and results of first experiments. , 2016, , .		0
40	Application Of Systems With Total Internal Reflection At Novosibirsk Free Electron Laser For Spectroscopy In The Terahertz Range. <i>Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika</i> , 2016, 11, 72-82.	0.1	0
41	Using high-power THz radiation imaging systems for implementation of classical optical techniques in the terahertz range. , 2015, , .		0
42	Measurement of the complex refractive index of liquids and biological substances in the terahertz range at the NovoFEL facility. , 2015, , .		0
43	High-power terahertz non-diffractive bessel beams with angular orbital momentum: Generation and application. , 2015, , .		2
44	Study of radiative losses of terahertz surface plasmons on plane metal-dielectric interfaces. , 2015, , .		1
45	Novosibirsk Free Electron Laserâ€™ Facility Description and Recent Experiments. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2015, 5, 798-809.	2.0	145
46	Generation of Terahertz Surface Plasmon Polaritons Using Nondiffractive Bessel Beams with Orbital Angular Momentum. <i>Physical Review Letters</i> , 2015, 115, 163901.	2.9	80
47	Classical Holography in the Terahertz Range: Recording and Reconstruction Techniques. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2015, 5, 836-844.	2.0	82
48	Polarimetry at Novosibirsk terahertz free electron laser facility. , 2014, , .		0
49	A thorough study of terahertz surface waves travelling along metal-dielectric surfaces of different curvature and jumping through air gaps. , 2014, , .		1
50	Deflection of a monochromatic THz beam by acousto-optic methods. <i>Quantum Electronics</i> , 2013, 43, 1139-1142.	0.3	21
51	Surface plasmon propagation along plane metal-dielectric interfaces with air gaps. , 2013, , .		1
52	Diffraction of a surface wave on a conducting rectangular wedge. <i>Physical Review A</i> , 2013, 87, .	1.0	24
53	Surface plasmon polaritons launched using a terahertz free-electron laser: propagation along a goldâ€™ZnSâ€™ air interface and decoupling to free waves at the surface edge. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 2182.	0.9	38
54	Terahertz circular dichroism polarimeter with an attenuated total reflection module at Novosibirsk free electron laser. , 2013, , .		0

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55	Study of Diffraction of Surface Plasmon Polaritons at the Rectangular Edge of a Metall-Dielectric Interface in the Terahertz Region. Vestnik Novosibirskogo Gosudarstvennogo Universiteta SeriÃ¢: Fizika, 2013, 8, 6-15.	0.1	0
56	Study of surface plasmons travelling along straight and curved metal-dielectric interfaces: Experiment and theory. , 2012, , .		2
57	Study of diffractive optical elements using high-power radiation of novosibirsk terahertz free electron laser. , 2012, , .		0
58	Stark spectroscopy of a probe lithium beam excited with two dye lasers as a technique to study a high-power ion-beam diode. Review of Scientific Instruments, 2012, 83, 033101.	0.6	1
59	Recording and reconstruction of in-line holograms of amplitude objects in the terahertz frequency range using a free electron laser. Radiophysics and Quantum Electronics, 2012, 54, 585-590.	0.1	3
60	Novosibirsk terahertz free electron laser: Facility development and new experimental results at the user stations. , 2011, , .		0
61	In-line and reference-beam holography experiments on Novosibirsk free electron. , 2011, , .		2
62	A way to determine the permittivity of metallized surfaces at terahertz frequencies. Applied Physics Letters, 2011, 98, .	1.5	22
63	Terahertz surface plasmon generation and study using a free-electron laser and uncooled detectors. , 2011, , .		1
64	Tomography using a high-power terahertz free electron laser. , 2011, , .		0
65	Real-Time Imaging Using a High-Power Monochromatic Terahertz Source: Comparative Description of Imaging Techniques with Examples of Application. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 1207-1222.	1.2	30
66	Introductory Remarks from the Guest Editors. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 1053-1053.	1.2	0
67	Surface plasmon dispersive spectroscopy of thin films at terahertz frequencies. Proceedings of SPIE, 2010, , .	0.8	4
68	Method for identifying diffraction satellites of surface plasmons in terahertz frequency range. Technical Physics Letters, 2010, 36, 1016-1019.	0.2	6
69	Obtaining spectrally selective images of objects in attenuated total reflection regime in real time in visible and terahertz ranges. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 108, 859-865.	0.2	10
70	The Talbot effect in the terahertz spectral range. , 2010, , .		5
71	Novosibirsk terahertz free electron laser: instrumentation development and experimental achievements. Measurement Science and Technology, 2010, 21, 054017.	1.4	116
72	The excitation of terahertz-range surface plasmons by frustrated total internal reflection through the substrate. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2010, 77, 465.	0.2	3

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73	Classic holography, tomography and speckle metrology using a high-power terahertz free electron laser and real-time image detectors. , 2010, , .		5
74	Noninterferometric Techniques to Determine Terahertz Surface-Plasmon Complex Refractive Index. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 147-150.	0.1	0
75	Development of Confocal 3d Surface Sensor Based on the Diffraction-Chromatic Coding Method for the Purpose of Spectroscopic Measurements. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 117-122.	0.1	0
76	Design and Application of Uncooled Microbolometer Array for the Terahertz Spectral Range. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 73-78.	0.1	0
77	Terahertz Dispersive Spectroscopy for Thin-Film Study Via Surface-Plasmon Bulk Wave Interference. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 158-161.	0.1	0
78	Approaching Terahertz Holography Using the Free Electron Laser. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 98-102.	0.1	0
79	Terahertz Tomography of Low Contrast Objects: Algorithms and Experimental Measurements. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 91-97.	0.1	1
80	Speckle pattern of the images of objects exposed to monochromatic coherent terahertz radiation. Quantum Electronics, 2009, 39, 481-486.	0.3	9
81	Geodesic elements to control terahertz surface plasmons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 603, 52-55.	0.7	8
82	Real-time speckle metrology using terahertz free electron laser radiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 603, 50-51.	0.7	8
83	Wide-field imaging using a tunable terahertz free electron laser and a thermal image plate. Infrared Physics and Technology, 2009, 52, 14-18.	1.3	14
84	High power THz applications on the NovoFEL. , 2009, , .		3
85	Single-channel- and real-time imaging attenuated total reflection spectrometers for THz range. , 2008, , .		0
86	Feasibility of real-time terahertz speckle metrology. , 2008, , .		0
87	Imaging with a 90frames/s microbolometer focal plane array and high-power terahertz free electron laser. Applied Physics Letters, 2008, 92, .	1.5	72
88	Fast Fourier Transform Calculation and Interpretation. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2008, 3, 74-86.	0.1	1
89	Characteristic Properties Of Attenuated Total Reflection Spectroscopy In Terahertz Region. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2008, 3, 97-112.	0.1	0
90	Status of the Novosibirsk high-power terahertz FEL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 54-57.	0.7	65

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91	Techniques for introscopy of condense matter in terahertz spectral region. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 63-67.	0.7	12
92	Fresnel reflection in optical components and detectors for the terahertz frequency band. Instruments and Experimental Techniques, 2007, 50, 524-529.	0.1	8
93	Visualization of radiation from a high-power terahertz free electron laser with a thermosensitive interferometer. Technical Physics, 2007, 52, 911-919.	0.2	12
94	Diffraction optical elements and quasioptical schemes for experiments on a high-power terahertz free-electron laser. Radiophysics and Quantum Electronics, 2007, 50, 803-812.	0.1	5
95	Study of Polarizer Characteristics with a High-Power Terahertz Free Electron Laser. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 28, 219-222.	0.6	11
96	Attenuated total reflection spectrometer with terahertz free electron laser as a source. , 2006, , .		1
97	Title is missing!. Physics-Uspekhi, 2006, 49, 937.	0.8	12
98	Introscopy of solids at Novosibirsk terahertz free electron laser. , 2006, , .		2
99	High Speed Terahertz Imaging Using Thermosensitive Elements. , 2006, , .		2