

Boris A Knyazev

List of Publications by Year in descending order

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Version: 2024-02-01

99
papers

1,192
citations

471061

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395343

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99
all docs

99
docs citations

99
times ranked

709
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Novosibirsk Free Electron Laser Facility Description and Recent Experiments. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 798-809. | 2.0 | 145 |
| 2 | Novosibirsk terahertz free electron laser: instrumentation development and experimental achievements. Measurement Science and Technology, 2010, 21, 054017. | 1.4 | 116 |
| 3 | Classical Holography in the Terahertz Range: Recording and Reconstruction Techniques. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 836-844. | 2.0 | 82 |
| 4 | Generation of Terahertz Surface Plasmon Polaritons Using Nondiffractive Bessel Beams with Orbital Angular Momentum. Physical Review Letters, 2015, 115, 163901. | 2.9 | 80 |
| 5 | Imaging with a 90frames/s microbolometer focal plane array and high-power terahertz free electron laser. Applied Physics Letters, 2008, 92, . | 1.5 | 72 |
| 6 | 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 |
| 7 | High-power Bessel beams with orbital angular momentum in the terahertz range. Physical Review A, 2017, 96, . | 1.0 | 49 |
| 8 | 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 |
| 9 | Surface plasmon polaritons launched using a terahertz free-electron laser: propagation along a gold-Zn-air interface and decoupling to free waves at the surface edge. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2182. | 0.9 | 38 |
| 10 | Quasi-Talbot effect with vortex beams and formation of vortex beamlet arrays. Optics Express, 2018, 26, 14174. | 1.7 | 33 |
| 11 | 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 |
| 12 | Diffraction of a surface wave on a conducting rectangular wedge. Physical Review A, 2013, 87, . | 1.0 | 24 |
| 13 | Fabrication and characterization of diffractive phase plates for forming high-power terahertz vortex beams using free electron laser radiation. Optical and Quantum Electronics, 2016, 48, 1. | 1.5 | 24 |
| 14 | A way to determine the permittivity of metallized surfaces at terahertz frequencies. Applied Physics Letters, 2011, 98, . | 1.5 | 22 |
| 15 | Deflection of a monochromatic THz beam by acousto-optic methods. Quantum Electronics, 2013, 43, 1139-1142. | 0.3 | 21 |
| 16 | Focusing of Novosibirsk Free Electron Laser (NovoFEL) radiation into paraxial segment. Journal of Modern Optics, 2016, 63, 1051-1054. | 0.6 | 21 |
| 17 | Diffraction of bessel beams on 2D amplitude gratings a new branch in the talbot effect study. Journal of Optics (United Kingdom), 2020, 22, 065603. | 1.0 | 18 |
| 18 | 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 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | 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 |
| 20 | Wide-field imaging using a tunable terahertz free electron laser and a thermal image plate. <i>Infrared Physics and Technology</i> , 2009, 52, 14-18. | 1.3 | 14 |
| 21 | Title is missing!. <i>Physics-Uspexhi</i> , 2006, 49, 937. | 0.8 | 12 |
| 22 | Techniques for introscopy of condense matter in terahertz spectral region. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 575, 63-67. | 0.7 | 12 |
| 23 | Visualization of radiation from a high-power terahertz free electron laser with a thermosensitive interferometer. <i>Technical Physics</i> , 2007, 52, 911-919. | 0.2 | 12 |
| 24 | First Terahertz-range Experiments on Pump " Probe Setup at Novosibirsk free Electron Laser. <i>Physics Procedia</i> , 2016, 84, 152-156. | 1.2 | 12 |
| 25 | Novosibirsk Free Electron Laser as a User Facility. <i>Physics Procedia</i> , 2016, 84, 27-34. | 1.2 | 12 |
| 26 | Study of Polarizer Characteristics with a High-Power Terahertz Free Electron Laser. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 2007, 28, 219-222. | 0.6 | 11 |
| 27 | Terahertz Switching Focuser Based on Thin Film Vanadium Dioxide Zone Plate. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018, 39, 1203-1210. | 1.2 | 11 |
| 28 | "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 |
| 29 | Obtaining spectrally selective images of objects in attenuated total reflection regime in real time in visible and terahertz ranges. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2010, 108, 859-865. | 0.2 | 10 |
| 30 | Speckle pattern of the images of objects exposed to monochromatic coherent terahertz radiation. <i>Quantum Electronics</i> , 2009, 39, 481-486. | 0.3 | 9 |
| 31 | Transmission of high-power terahertz beams with orbital angular momentum through atmosphere. , 2016, , . | | 9 |
| 32 | 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 |
| 33 | Fresnel reflection in optical components and detectors for the terahertz frequency band. <i>Instruments and Experimental Techniques</i> , 2007, 50, 524-529. | 0.1 | 8 |
| 34 | Geodesic elements to control terahertz surface plasmons. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 52-55. | 0.7 | 8 |
| 35 | Real-time speckle metrology using terahertz free electron laser radiation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 50-51. | 0.7 | 8 |
| 36 | An Ellipsometric Technique with an ATR Module and a Monochromatic Source of Radiation for Measurement of Optical Constants of Liquids in the Terahertz Range. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2019, 40, 200-209. | 1.2 | 8 |

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|----|---|-----|-----------|
| 37 | Diamond diffractive lens with a continuous profile for powerful terahertz radiation. Optics Letters, 2021, 46, 340. | 1.7 | 8 |
| 38 | Observation of Acousto-Optic Diffraction of Terahertz Radiation in Liquefied Sulfur Hexafluoride at Room Temperature. IEEE Transactions on Terahertz Science and Technology, 2020, 10, 44-50. | 2.0 | 7 |
| 39 | Numerical Optimization of Refractive Index Sensors Based on Diffraction Gratings with High Aspect Ratio in Terahertz Range. Sensors, 2022, 22, 172. | 2.1 | 7 |
| 40 | Method for identifying diffraction satellites of surface plasmons in terahertz frequency range. Technical Physics Letters, 2010, 36, 1016-1019. | 0.2 | 6 |
| 41 | Diffractive 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 |
| 42 | The Talbot effect in the terahertz spectral range. , 2010, , . | | 5 |
| 43 | Classic holography, tomography and speckle metrology using a high-power terahertz free electron laser and real-time image detectors. , 2010, , . | | 5 |
| 44 | Silicon diffractive optical element with piecewise continuous profile to focus high-power terahertz radiation into a square area. Journal of the Optical Society of America B: Optical Physics, 2021, 38, B9. | 0.9 | 5 |
| 45 | Surface plasmon dispersive spectroscopy of thin films at terahertz frequencies. Proceedings of SPIE, 2010, , . | 0.8 | 4 |
| 46 | Simulation of Propagation and Transformation of THz Bessel Beams with Orbital Angular Momentum. Physics Procedia, 2016, 84, 175-183. | 1.2 | 4 |
| 47 | Vortex surface plasmon polaritons on a cylindrical waveguide: generation, propagation, and diffraction. Journal of Optics (United Kingdom), 2021, 23, 10LT01. | 1.0 | 4 |
| 48 | High power THz applications on the NovoFEL. , 2009, , . | | 3 |
| 49 | The excitation of terahertz-range surface plasmons by frustrated total internal reflection through the substrate. Journal of Optical Technology (A Translation of Opticheski Zhurnal), 2010, 77, 465. | 0.2 | 3 |
| 50 | 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 |
| 51 | Holography with high-power CW coherent terahertz source: optical components, imaging, and applications. Light Advanced Manufacturing, 2022, 3, 1. | 2.2 | 3 |
| 52 | Introspect of solids at Novosibirsk terahertz free electron laser. , 2006, , . | | 2 |
| 53 | High Speed Terahertz Imaging Using Thermosensitive Elements. , 2006, , . | | 2 |
| 54 | In-line and reference-beam holography experiments on Novosibirsk free electron. , 2011, , . | | 2 |

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| 55 | Study of surface plasmons travelling along straight and curved metal-dielectric interfaces: Experiment and theory. , 2012, , . | | 2 |
| 56 | High-power terahertz non-diffractive besell beams with angular orbital momentum: Generation and application. , 2015, , . | | 2 |
| 57 | Holography as imaging technique for the THz range. , 2016, , . | | 2 |
| 58 | Terahertz surface plasmon resonance microscopy based on ghost imaging with pseudo-thermal speckle light. , 2020, , . | | 2 |
| 59 | Attenuated total reflection spectrometer with terahertz free electron laser as a source. , 2006, , . | | 1 |
| 60 | Terahertz surface plasmon generation and study using a free-electron laser and uncooled detectors. , 2011, , . | | 1 |
| 61 | 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 |
| 62 | Surface plasmon propagation along plane metal-dielectric interfaces with air gaps. , 2013, , . | | 1 |
| 63 | A thorough study of terahertz surface waves travelling along metal-dielectric surfaces of different curvature and jumping through air gaps. , 2014, , . | | 1 |
| 64 | Study of radiative losses of terahertz surface plasmons on plane metal-dielectric interfaces. , 2015, , . | | 1 |
| 65 | Reflection of terahertz surface plasmons from plane mirrors and transparent plates. , 2016, , . | | 1 |
| 66 | Holography as an ATR THz imaging technique. , 2018, , . | | 1 |
| 67 | Diffraction of Terahertz Gaussian and Bessel Beams on 2D Gratings with Wavelength-Scale Openings. , 2019, , . | | 1 |
| 68 | THz gas sensing based on subwavelength rectangular metal grating in attenuated total reflection configuration. AIP Conference Proceedings, 2020, , . | 0.3 | 1 |
| 69 | Fast Fourier Transform " Calculation and Interpretation. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2008, 3, 74-86. | 0.1 | 1 |
| 70 | Terahertz Tomography of Low Contrast Objects: Algorithms and Experimental Measurements. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya: Fizika, 2010, 5, 91-97. | 0.1 | 1 |
| 71 | Experiments on Generation of Vortex Surface Plasmon Polaritons on Plane and Cylindrical Conductors in Mid-Infrared and THz Ranges. , 2020, , . | | 1 |
| 72 | Single-channel- and real-time imaging attenuated total reflection spectrometers for THz range. , 2008, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | Feasibility of real-time terahertz speckle metrology. , 2008, , . | | 0 |
| 74 | Novosibirsk terahertz free electron laser: Facility development and new experimental results at the user stations. , 2011, , . | | 0 |
| 75 | Tomography using a high-power terahertz free electron laser. , 2011, , . | | 0 |
| 76 | Introductory Remarks from the Guest Editors. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 1053-1053. | 1.2 | 0 |
| 77 | Study of diffractive optical elements using high-power radiation of novosibirsk terahertz free electron laser. , 2012, , . | | 0 |
| 78 | Terahertz circular dichroism polarimeter with an attenuated total reflection module at Novosibirsk free electron laser. , 2013, , . | | 0 |
| 79 | Polarimetry at Novosibirsk terahertz free electron laser facility. , 2014, , . | | 0 |
| 80 | Using high-power THz radiation imaging systems for implementation of classical optical techniques in the terahertz range. , 2015, , . | | 0 |
| 81 | Measurement of the complex refractive index of liquids and biological substances in the terahertz range at the NovoFEL facility. , 2015, , . | | 0 |
| 82 | Transformation of mode contains of novosibirsk FEL radiation and focusing in determined areas and volumes. , 2017, , . | | 0 |
| 83 | 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 |
| 84 | Reducing Losses of Terahertz Surface Plasmons by Submicron Dielectric Coatings. , 2018, , . | | 0 |
| 85 | Polyimide Splitters for Terahertz Surface Plasmons. , 2018, , . | | 0 |
| 86 | Location of objects beyond the horizon line by terahertz surface plasmons. , 2019, , . | | 0 |
| 87 | First Generation of Vortex Plasmons via Vortex-Beam End-Fire Coupling. , 2021, , . | | 0 |
| 88 | Terahertz pump â€” Terahertz probe system at Novosibirsk free electron laser: Commissioning and results of first experiments. , 2016, , . | | 0 |
| 89 | Numerical simulation of interaction of terahertz waves with metal diffraction gratings. AIP Conference Proceedings, 2020, , . | 0.3 | 0 |
| 90 | TERAHERTZ PHOTONICS AND SPECTROSCOPY ON NOVOSIBIRSK FREE ELECTRON LASER. Interexpo GEO-Siberia, 2020, 8, 3-26. | 0.0 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 91 | Study of Diffraction of Surface Plasmon Polaritons at the Rectangular Edge of a Metall-Dielectric Interface in the Terahertz Region. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2013, 8, 6-15. | 0.1 | 0 |
| 92 | Characteristic Properties Of Attenuated Total Reflection Spectroscopy In Terahertz Region. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2008, 3, 97-112. | 0.1 | 0 |
| 93 | Noninterferometric Techniques to Determine Terahertz Surface-Plasmon Complex Refractive Index. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2010, 5, 147-150. | 0.1 | 0 |
| 94 | 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 |
| 95 | 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 |
| 96 | 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 |
| 97 | Approaching Terahertz Holography Using the Free Electron Laser. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2010, 5, 98-102. | 0.1 | 0 |
| 98 | Application Of Systems With Total Internal Reflection At Novosibirsk Free Electron Laser For Spectroscopy In The Terahertz Range. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2016, 11, 72-82. | 0.1 | 0 |
| 99 | Experimental Investigation of Self-Healing of Terahertz Vortex Beams. , 2021, , . | | 0 |