

Andrey A Ionin

List of Publications by Year in descending order

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306
papers

3,931
citations

159573

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206102

48
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307
all docs

307
docs citations

307
times ranked

2175
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Physics and engineering of singlet delta oxygen production in low-temperature plasma. Journal Physics D: Applied Physics, 2007, 40, R25-R61. | 2.8 | 256 |
| 2 | Frequency down-conversion of multiline CO laser into the THz range with ZnGeP2 crystal. Optical and Quantum Electronics, 2020, 52, 1. | 3.3 | 132 |
| 3 | Thermal melting and ablation of silicon by femtosecond laser radiation. Journal of Experimental and Theoretical Physics, 2013, 116, 347-362. | 0.9 | 97 |
| 4 | Experimental study of fs-laser induced sub-100-nm periodic surface structures on titanium. Optics Express, 2015, 23, 5915. | 3.4 | 95 |
| 5 | Femtosecond laser writing of subwave one-dimensional quasiperiodic nanostructures on a titanium surface. JETP Letters, 2009, 90, 107-110. | 1.4 | 80 |
| 6 | Non-self-sustained electric discharge in oxygen gas mixtures: singlet delta oxygen production. Journal Physics D: Applied Physics, 2003, 36, 982-989. | 2.8 | 77 |
| 7 | Femtosecond laser color marking of metal and semiconductor surfaces. Applied Physics A: Materials Science and Processing, 2012, 107, 301-305. | 2.3 | 74 |
| 8 | GARPUN-MTW: A hybrid Ti:Sapphire/KrF laser facility for simultaneous amplification of subpicosecond/nanosecond pulses relevant to fast-ignition ICF concept. Laser and Particle Beams, 2007, 25, 435-451. | 1.0 | 66 |
| 9 | Ultrafast changes in the optical properties of a titanium surface and femtosecond laser writing of one-dimensional quasi-periodic nanogratings of its relief. Journal of Experimental and Theoretical Physics, 2011, 113, 14-26. | 0.9 | 63 |
| 10 | On-Fly Femtosecond-Laser Fabrication of Self-Organized Plasmonic Nanotextures for Chemo- and Biosensing Applications. ACS Applied Materials & Interfaces, 2016, 8, 24946-24955. | 8.0 | 58 |
| 11 | Antibacterial coatings of Se and Si nanoparticles. Applied Surface Science, 2019, 469, 220-225. | 6.1 | 58 |
| 12 | Femtosecond Laser Treatment for the Design of Electro-insulating Superhydrophobic Coatings with Enhanced Wear Resistance on Glass. ACS Applied Materials & Interfaces, 2014, 6, 2080-2085. | 8.0 | 56 |
| 13 | Broadband carbon monoxide laser system operating in the wavelength range of 2.5 μm - 8.3 μm . Quantum Electronics, 2013, 43, 139-143. | 1.0 | 50 |
| 14 | Near-threshold femtosecond laser fabrication of one-dimensional subwavelength nanogratings on a graphite surface. Physical Review B, 2011, 83, . | 3.2 | 48 |
| 15 | Relaxation phenomena in electronic and lattice subsystems on iron surface during its ablation by ultrashort laser pulses. JETP Letters, 2014, 99, 51-55. | 1.4 | 47 |
| 16 | Nanoscale cavitation instability of the surface melt along the grooves of one-dimensional nanorelief gratings on an aluminum surface. JETP Letters, 2011, 94, 266-269. | 1.4 | 46 |
| 17 | Triggering and guiding electric discharge by a train of ultraviolet picosecond pulses combined with a long ultraviolet pulse. Applied Physics Letters, 2012, 100, 104105. | 3.3 | 45 |
| 18 | Direct femtosecond laser fabrication of antireflective layer on GaAs surface. Applied Physics B: Lasers and Optics, 2013, 111, 419-423. | 2.2 | 42 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Nanosecond-Laser Generation of Nanoparticles in Liquids: From Ablation through Bubble Dynamics to Nanoparticle Yield. <i>Materials</i> , 2019, 12, 562. | 2.9 | 42 |
| 20 | Near-critical phase explosion promoting breakdown plasma ignition during laser ablation of graphite. <i>Physical Review E</i> , 2010, 82, 016404. | 2.1 | 41 |
| 21 | Multiple filamentation of intense femtosecond laser pulses in air. <i>JETP Letters</i> , 2009, 90, 423-427. | 1.4 | 39 |
| 22 | Through nanohole formation in thin metallic film by single nanosecond laser pulses using optical dielectric apertureless probe. <i>Optics Letters</i> , 2013, 38, 1452. | 3.3 | 38 |
| 23 | Large-Scale Laser Fabrication of Antifouling Silicon-Surface Nanosheet Arrays via Nanoplasmonic Ablative Self-Organization in Liquid CS ₂ Tracked by a Sulfur Dopant. <i>ACS Applied Nano Materials</i> , 2018, 1, 2461-2468. | 5.0 | 36 |
| 24 | Structural transformation and residual stresses in surface layers of Ti-6Al-4V titanium alloys nanotextured by femtosecond laser pulses. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 119, 241-247. | 2.3 | 34 |
| 25 | Nanoscale boiling during single-shot femtosecond laser ablation of thin gold films. <i>JETP Letters</i> , 2015, 101, 394-397. | 1.4 | 33 |
| 26 | Silicon as a virtual plasmonic material: Acquisition of its transient optical constants and the ultrafast surface plasmon-polariton excitation. <i>Journal of Experimental and Theoretical Physics</i> , 2015, 120, 946-959. | 0.9 | 33 |
| 27 | Nanoscale surface boiling in sub-threshold damage and above-threshold spallation of bulk aluminum and gold by single femtosecond laser pulses. <i>Laser Physics Letters</i> , 2016, 13, 025603. | 1.4 | 33 |
| 28 | Electron dynamics and prompt ablation of aluminum surface excited by intense femtosecond laser pulse. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 1757-1763. | 2.3 | 32 |
| 29 | Enhancement of ultrafast electron photoemission from metallic nanoantennas excited by a femtosecond laser pulse. <i>Laser Physics Letters</i> , 2014, 11, 065301. | 1.4 | 32 |
| 30 | Sub-100 nanometer transverse gratings written by femtosecond laser pulses on a titanium surface. <i>Laser Physics Letters</i> , 2013, 10, 056004. | 1.4 | 31 |
| 31 | Generation and detection of superstrong shock waves during ablation of an aluminum surface by intense femtosecond laser pulses. <i>JETP Letters</i> , 2011, 94, 34-38. | 1.4 | 30 |
| 32 | Filamentation of femtosecond laser pulses governed by variable wavefront distortions via a deformable mirror. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 2257. | 2.1 | 30 |
| 33 | Formation of crownlike and related nanostructures on thin supported gold films irradiated by single diffraction-limited nanosecond laser pulses. <i>Physical Review E</i> , 2014, 90, 023017. | 2.1 | 29 |
| 34 | Frequency conversion of mode-locked and Q-switched CO laser radiation with efficiency up to 37%. <i>Optics Letters</i> , 2015, 40, 2997. | 3.3 | 29 |
| 35 | Milligram-per-second femtosecond laser production of Se nanoparticle inks and ink-jet printing of nanophotonic 2D-patterns. <i>Applied Surface Science</i> , 2018, 436, 662-669. | 6.1 | 28 |
| 36 | Deeply sub-wavelength laser nanopatterning of Si surface in dielectric fluids: Manipulation by surface plasmon resonance. <i>Applied Surface Science</i> , 2020, 519, 146204. | 6.1 | 28 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Frequency-tunable optically pumped carbon monoxide laser. IEEE Journal of Quantum Electronics, 2000, 36, 1041-1052. | 1.9 | 27 |
| 38 | Nanoscale hydrodynamic instability in a molten thin gold film induced by femtosecond laser ablation. JETP Letters, 2014, 99, 518-522. | 1.4 | 27 |
| 39 | Filamentation of IR and UV femtosecond pulses upon focusing in air. Quantum Electronics, 2013, 43, 29-36. | 1.0 | 26 |
| 40 | Peculiarities of filamentation of sharply focused ultrashort laser pulses in air. Journal of Experimental and Theoretical Physics, 2010, 111, 724-730. | 0.9 | 25 |
| 41 | Surface nanostructuring of Ni/Cu foils by femtosecond laser pulses. Quantum Electronics, 2011, 41, 387-392. | 1.0 | 25 |
| 42 | Mode-locked CO laser frequency doubling in ZnGeP2 with 25% efficiency. Laser Physics Letters, 2011, 8, 723-728. | 1.4 | 25 |
| 43 | Beam spatial profile effect on femtosecond laser surface structuring of titanium in scanning regime. Applied Surface Science, 2013, 284, 634-637. | 6.1 | 25 |
| 44 | Mechanisms of formation of sub- and micrometre-scale holes in thin metal films by single nano- and femtosecond laser pulses. Quantum Electronics, 2014, 44, 540-546. | 1.0 | 25 |
| 45 | Pulse-width-dependent surface ablation of copper and silver by ultrashort laser pulses. Laser Physics Letters, 2016, 13, 076101. | 1.4 | 25 |
| 46 | Efficient pulsed first-overtone CO laser operating within the spectral range of 2.5-4.2 μm . IEEE Journal of Quantum Electronics, 2000, 36, 810-823. | 1.9 | 24 |
| 47 | Glow discharge in singlet oxygen. Plasma Physics Reports, 2003, 29, 211-219. | 0.9 | 24 |
| 48 | Ultrafast electron dynamics on the silicon surface excited by an intense femtosecond laser pulse. JETP Letters, 2012, 96, 375-379. | 1.4 | 24 |
| 49 | “Heterogeneous” versus “homogeneous” nucleation and growth of microcones on titanium surface under UV femtosecond-laser irradiation. Applied Physics A: Materials Science and Processing, 2014, 116, 1133-1139. | 2.3 | 24 |
| 50 | Femtosecond laser fabrication of sub-diffraction nanoripples on wet Al surface in multi-filamentation regime: High optical harmonics effects?. Applied Surface Science, 2014, 292, 678-681. | 6.1 | 24 |
| 51 | Carbon monoxide laser emitting nanosecond pulses with 10MHz repetition rate. Optics Communications, 2009, 282, 294-299. | 2.1 | 23 |
| 52 | Lasers on overtone transitions of carbon monoxide molecule. Laser Physics, 2010, 20, 144-186. | 1.2 | 23 |
| 53 | Fabrication of Superhydrophobic Coating on Stainless Steel Surface by Femtosecond Laser Texturing and Chemisorption of an Hydrophobic Agent. Journal of Russian Laser Research, 2015, 36, 81-85. | 0.6 | 23 |
| 54 | Femtosecond laser-induced stress-free ultra-densification inside porous glass. Laser Physics Letters, 2016, 13, 055901. | 1.4 | 23 |

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| 55 | Multiline laser probing of CO:He, CO:N ₂ , and CO:O ₂ active media in a wide-aperture pulsed amplifier. Journal of Russian Laser Research, 2006, 27, 33-69. | 0.6 | 22 |
| 56 | Acoustic monitoring of microplasma formation and filamentation of tightly focused femtosecond laser pulses in silica glass. Applied Physics Letters, 2008, 92, . | 3.3 | 22 |
| 57 | Dynamic polarization flip in nanoripples on photoexcited Ti surface near its surface plasmon resonance. Optics Letters, 2015, 40, 4967. | 3.3 | 22 |
| 58 | Spectroscopic Detection of Sulfur Oxides in the Aircraft Wake. Journal of Russian Laser Research, 2005, 26, 402-426. | 0.6 | 21 |
| 59 | Bulk femtosecond laser marking of natural diamonds. Laser Physics, 2010, 20, 1778-1782. | 1.2 | 21 |
| 60 | Laser ablation of polished and nanostructured titanium surfaces by nanosecond laser pulses. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 88, 15-19. | 2.9 | 21 |
| 61 | Nonlinear regime of the excitation of a surface electromagnetic wave on the silicon surface by an intense femtosecond laser pulse. JETP Letters, 2013, 97, 121-125. | 1.4 | 21 |
| 62 | Directed transfer of microwave radiation in sliding-mode plasma waveguides produced by ultraviolet laser in atmospheric air. Applied Optics, 2014, 53, 131. | 2.1 | 21 |
| 63 | Flash-imprinting of intense femtosecond surface plasmons for advanced nanoantenna fabrication. Optics Letters, 2015, 40, 1687. | 3.3 | 21 |
| 64 | Dynamics of the spallative ablation of a GaAs surface irradiated by femtosecond laser pulses. JETP Letters, 2012, 94, 753-758. | 1.4 | 20 |
| 65 | Production of extended plasma channels in atmospheric air by amplitude-modulated UV radiation of GARPUN-MTW Ti : sapphire KrF laser. Part 2. Accumulation of plasma electrons and electric discharge control. Quantum Electronics, 2013, 43, 339-346. | 1.0 | 20 |
| 66 | Formation of nanobumps and nanoholes in thin metal films by strongly focused nanosecond laser pulses. Journal of Experimental and Theoretical Physics, 2014, 119, 15-23. | 0.9 | 20 |
| 67 | High-throughput laser generation of Si-nanoparticle based surface coatings for antibacterial applications. Applied Surface Science, 2019, 470, 825-831. | 6.1 | 20 |
| 68 | Pulsed laser operating on the first vibrational overtone of the CO molecule in the 2.5–4.2- μ m range: 1. Multifrequency lasing. Quantum Electronics, 2000, 30, 771-777. | 1.0 | 19 |
| 69 | Formation of quasi-periodic nano- and microstructures on silicon surface under IR and UV femtosecond laser pulses. Quantum Electronics, 2011, 41, 829-834. | 1.0 | 19 |
| 70 | Single-shot front-side nanoscale femtosecond laser ablation of a thin silver film. Applied Physics A: Materials Science and Processing, 2014, 117, 981-985. | 2.3 | 19 |
| 71 | High-power supersonic CO laser on fundamental and overtone transitions. Quantum Electronics, 2005, 35, 1126-1130. | 1.0 | 18 |
| 72 | Optical and ultrasonic signatures of femtosecond pulse filamentation in fused silica. Journal of Applied Physics, 2009, 105, . | 2.5 | 18 |

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|----|---|-----|-----------|
| 73 | Focusing of intense femtosecond surface plasmon-polaritons. JETP Letters, 2013, 97, 599-603. | 1.4 | 18 |
| 74 | Electron emission and ultrafast low-fluence plasma formation during single-shot femtosecond laser surface ablation of various materials. JETP Letters, 2015, 101, 308-312. | 1.4 | 18 |
| 75 | Nonlinear optical dynamics during femtosecond laser nanostructuring of a silicon surface. Laser Physics Letters, 2015, 12, 025902. | 1.4 | 18 |
| 76 | Extended plasma channels created by UV laser in air and their application to control electric discharges. Plasma Physics Reports, 2015, 41, 112-146. | 0.9 | 18 |
| 77 | RF discharge slab CO laser operating in both fundamental and first-overtone bands. Optics Communications, 2009, 282, 629-634. | 2.1 | 17 |
| 78 | Mode-locked and Q-switched carbon monoxide laser system. Optics Communications, 2015, 345, 163-167. | 2.1 | 17 |
| 79 | Sum-frequency generation of Q-switched CO laser radiation in BaGa ₂ GeSe ₆ and GaSe nonlinear crystals. Optical and Quantum Electronics, 2018, 50, 1. | 3.3 | 17 |
| 80 | Pulsed laser operating on the first overtone of the CO molecule in the 2.5–4.2 μm range. II. Frequency-selective lasing. Quantum Electronics, 2000, 30, 859-866. | 1.0 | 16 |
| 81 | Topological evolution of self-induced silicon nanogratings during prolonged femtosecond laser irradiation. Applied Physics A: Materials Science and Processing, 2011, 104, 701-705. | 2.3 | 16 |
| 82 | Enhanced relativistic laser-plasma coupling utilizing laser-induced micromodified target. Laser Physics Letters, 2015, 12, 046005. | 1.4 | 16 |
| 83 | A pulsed overtone CO laser with efficiency of 16%. Quantum Electronics, 2006, 36, 1153-1154. | 1.0 | 15 |
| 84 | In vitro femtosecond laser subsurface micro-disruption inside human cornea and pre-cleared sclera. Laser Physics Letters, 2010, 7, 463-466. | 1.4 | 15 |
| 85 | Electron-ion coupling and ambipolar diffusion in dense electron-hole plasma in thin amorphous Si films studied by single-shot, pulse-width dependent ultrafast laser ablation. Applied Surface Science, 2017, 425, 170-175. | 6.1 | 15 |
| 86 | Direct laser writing of barriers with controllable permeability in porous glass. Optics Express, 2018, 26, 28150. | 3.4 | 15 |
| 87 | Measurement of the O ₂ (b ¹ g ⁺ → a ¹ g) transition probability by the method of intracavity laser spectroscopy. Quantum Electronics, 2005, 35, 378-384. | 1.0 | 14 |
| 88 | Gain dynamics in a pulsed laser amplifier on CO-He, CO-N ₂ and CO-O ₂ gas mixtures. Quantum Electronics, 2007, 37, 111-117. | 1.0 | 14 |
| 89 | Self-limited ionization in bandgap renormalized GaAs at high femtosecond laser intensities. Optical Engineering, 2012, 51, 121808. | 1.0 | 14 |
| 90 | Femtosecond laser modification of titanium surfaces: direct imprinting of hydroxylapatite nanopowder and wettability tuning via surface microstructuring. Laser Physics Letters, 2013, 10, 045605. | 1.4 | 14 |

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|-----|--|-----|-----------|
| 91 | Thermocavitation melt instability and micro-crown formation near the threshold for femtosecond laser spallation of a silicon surface. JETP Letters, 2014, 100, 145-149. | 1.4 | 14 |
| 92 | Superhydrophobic textures fabricated by femtosecond laser pulses on sub-micro- and nano-crystalline titanium surfaces. Laser Physics Letters, 2014, 11, 125602. | 1.4 | 14 |
| 93 | Parametric study of first-overtone CO laser with suppressed fundamental band lasing: experiment and theory. Optics Communications, 1998, 155, 197-205. | 2.1 | 13 |
| 94 | Multiterawatt Ti:Sapphire/KrF laser GARPUN-MTW as a test bench facility for verification of combined amplification of nanosecond and subpicosecond pulses. Journal of Physics: Conference Series, 2010, 244, 032014. | 0.4 | 13 |
| 95 | Third harmonic generation by ultrashort laser pulses tightly focused in air. Laser Physics, 2011, 21, 500-504. | 1.2 | 13 |
| 96 | Femtosecond laser ablation of carbon: From spallation to formation of hot critical plasma. AIP Conference Proceedings, 2012, , . | 0.4 | 13 |
| 97 | Optical apertureless fiber microprobe for surface laser modification of metal films with sub-100nm resolution. Optics Communications, 2013, 308, 125-129. | 2.1 | 13 |
| 98 | Plasma channels during filamentation of a femtosecond laser pulse with wavefront astigmatism in air. Quantum Electronics, 2014, 44, 1085-1090. | 1.0 | 13 |
| 99 | Ultrafast femtosecond laser ablation of graphite. Laser Physics Letters, 2015, 12, 075301. | 1.4 | 13 |
| 100 | CO laser sum-frequency comb for atmosphere sensing. Infrared Physics and Technology, 2019, 100, 62-66. | 2.9 | 13 |
| 101 | Pulse-width-dependent critical power for self-focusing of ultrashort laser pulses in bulk dielectrics. Optics Letters, 2022, 47, 3487. | 3.3 | 13 |
| 102 | Master Oscillator-Power Amplifier carbon monoxide laser system emitting nanosecond pulses. Optics Communications, 2012, 285, 2707-2714. | 2.1 | 12 |
| 103 | Ti:sapphire/KrF hybrid laser system generating trains of subterawatt subpicosecond UV pulses. Quantum Electronics, 2014, 44, 431-439. | 1.0 | 12 |
| 104 | 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. | 3.0 | 12 |
| 105 | Resonant absorption of first-overtone CO laser radiation by atmospheric water vapor and pollutants. Laser and Particle Beams, 2000, 18, 697-713. | 1.0 | 11 |
| 106 | Frequency tunable single-line pulsed first-overtone carbon monoxide laser. Optics Communications, 2000, 180, 285-300. | 2.1 | 11 |
| 107 | Influence of nitrogen oxides NO and NO ₂ on singlet delta oxygen production in pulsed discharge. Journal Physics D: Applied Physics, 2009, 42, 015201. | 2.8 | 11 |
| 108 | Femtosecond laser ablation of single-wall carbon nanotube-based material. Laser Physics Letters, 2014, 11, 106101. | 1.4 | 11 |

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|-----|---|-----|-----------|
| 109 | Spectrally-selective mid-IR laser-induced inactivation of pathogenic bacteria. Biomedical Optics Express, 2021, 12, 6317. | 2.9 | 11 |
| 110 | The electro-ionization CO laser: A multiwavelength IR oscillator ($\lambda = 2.7\text{--}3.3\ \mu\text{m}; 4.9\text{--}6.0\ \mu\text{m}$). Infrared Physics, 1985, 25, 47-52. | 0.5 | 10 |
| 111 | Pulsed first-overtone CO laser: effective source of IR radiation in spectral range of $2.5\text{--}4.0\ \mu\text{m}$. Optics Communications, 1999, 160, 255-260. | 2.1 | 10 |
| 112 | Multiquantum vibrational exchange in highly excited CO molecules. Quantum Electronics, 2000, 30, 573-579. | 1.0 | 10 |
| 113 | Effects of picosecond terawatt UV laser beam filamentation and a repetitive pulse train on creation of prolonged plasma channels in atmospheric air. Nuclear Instruments & Methods in Physics Research B, 2013, 309, 218-222. | 1.4 | 10 |
| 114 | Remote Sensing of Nitrous Oxide and Methane Using Emission Lines of a CO Overtone Laser. Journal of Applied Spectroscopy, 2014, 81, 309-312. | 0.7 | 10 |
| 115 | Background-free, highly sensitive surface-enhanced IR absorption of rhodamine 6G molecules deposited onto an array of microholes in thin silver film. Laser Physics Letters, 2016, 13, 055602. | 1.4 | 10 |
| 116 | In Vitro Destruction of Pathogenic Bacterial Biofilms by Bactericidal Metallic Nanoparticles via Laser-Induced Forward Transfer. Nanomaterials, 2020, 10, 2259. | 4.1 | 10 |
| 117 | Femtosecond-laser-excited luminescence of the A-band in natural diamond and its thermal control. Optical Materials Express, 2021, 11, 2505. | 3.0 | 10 |
| 118 | Pulsed electron-beam-sustained discharge in oxygen-containing gas mixtures: electrical characteristics, spectroscopy, and singlet oxygen yield. Quantum Electronics, 2004, 34, 865-870. | 1.0 | 9 |
| 119 | Wideband CO laser in problems of laser sensing of minor gaseous components in the atmosphere. Russian Physics Journal, 2008, 51, 1200-1207. | 0.4 | 9 |
| 120 | Tunneling ionization of air in the strong field of femtosecond laser pulses. JETP Letters, 2009, 90, 181-185. | 1.4 | 9 |
| 121 | Slab Overtone CO Laser Operating in the $2.5\text{--}4.0\ \mu\text{m}$ Spectral Range. IEEE Journal of Quantum Electronics, 2009, 45, 215-217. | 1.9 | 9 |
| 122 | Surface enhanced infrared absorption of a dye on a metallic diffraction grating. JETP Letters, 2014, 100, 295-298. | 1.4 | 9 |
| 123 | Hydrodynamic instabilities of thin Au/Pd alloy film induced by tightly focused femtosecond laser pulses. Applied Surface Science, 2015, 337, 224-229. | 6.1 | 9 |
| 124 | Non-linear increase and saturation of third-harmonic yield from supported silver nanostructures excited by IR femtosecond laser pulses. Laser Physics Letters, 2016, 13, 035302. | 1.4 | 9 |
| 125 | Surface-Enhanced IR-Absorption Microscopy of Staphylococcus aureus Bacteria on Bactericidal Nanostructured Si Surfaces. Molecules, 2019, 24, 4488. | 3.8 | 9 |
| 126 | Birefringent microstructures in bulk fluorite produced by ultrafast pulsewidth-dependent laser inscription. Applied Surface Science, 2021, 568, 150877. | 6.1 | 9 |

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|-----|---|------|-----------|
| 127 | Similarity of angular distribution for THz radiation emitted by laser filament plasma channels of different lengths. <i>Optics Letters</i> , 2020, 45, 4009. | 3.3 | 9 |
| 128 | Pulsed first-overtone CO laser with output efficiency higher than 10%. <i>Optics Communications</i> , 1999, 171, 107-112. | 2.1 | 8 |
| 129 | A new laser technique for the formation of oxide surface complexes on carbon cloth. <i>Carbon</i> , 2004, 42, 443-445. | 10.3 | 8 |
| 130 | Mid-IR Zeeman spectrum of nitric oxide molecules in a strong magnetic field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011, 44, 025403. | 1.5 | 8 |
| 131 | Nanostructuring of the surface of silicate glass by femtosecond laser pulses in the UV range. <i>Journal of Optical Technology (A Translation of Opticheski Zhurnal)</i> , 2014, 81, 262. | 0.4 | 8 |
| 132 | Structural and electrical characteristics of a hyperdoped silicon surface layer with deep donor sulfur states. <i>JETP Letters</i> , 2014, 100, 55-58. | 1.4 | 8 |
| 133 | Nonlinear evolution of aluminum surface relief under multiple femtosecond laser irradiation. <i>JETP Letters</i> , 2015, 101, 350-357. | 1.4 | 8 |
| 134 | Multiple filamentation of supercritical UV laser beam in atmospheric air. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 355, 227-231. | 1.4 | 8 |
| 135 | Comparative analysis of post-focal filamentation of focused UV and IR laser pulses in air. <i>Quantum Electronics</i> , 2015, 45, 321-329. | 1.0 | 8 |
| 136 | A bacterial misericorde: laser-generated silicon nanorazors with embedded biotoxic nanoparticles combat the formation of durable biofilms. <i>Laser Physics Letters</i> , 2020, 17, 025601. | 1.4 | 8 |
| 137 | Multifrequency laser probing of CO-containing gas mixtures excited in a pulsed discharge. <i>Quantum Electronics</i> , 2007, 37, 231-236. | 1.0 | 7 |
| 138 | Pulsed electron-beam sustained discharge CO laser on oxygen-containing gas mixtures. <i>Quantum Electronics</i> , 2008, 38, 115-124. | 1.0 | 7 |
| 139 | A cryogenic slab CO laser. <i>Quantum Electronics</i> , 2009, 39, 229-234. | 1.0 | 7 |
| 140 | High-power IR- and UV-laser systems and their applications. <i>Physics-Usppekhi</i> , 2012, 55, 721-728. | 2.2 | 7 |
| 141 | Direct measurement of the characteristic three-body electron attachment time in the atmospheric air in direct current electric field. <i>Applied Physics Letters</i> , 2013, 103, 034106. | 3.3 | 7 |
| 142 | Local field enhancement on metallic periodic surface structures produced by femtosecond laser pulses. <i>Quantum Electronics</i> , 2013, 43, 304-307. | 1.0 | 7 |
| 143 | Plasma channels under filamentation of infrared and ultraviolet double femtosecond laser pulses. <i>Laser Physics Letters</i> , 2014, 11, 016002. | 1.4 | 7 |
| 144 | The influence of the energy reservoir on the plasma channel in focused femtosecond laser beams. <i>Laser Physics</i> , 2015, 25, 065402. | 1.2 | 7 |

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|-----|--|-----|-----------|
| 145 | Diffraction microgratings as a novel optical biosensing platform. Laser Physics Letters, 2016, 13, 075602. | 1.4 | 7 |
| 146 | Asymmetric spectral broadening of sub-picosecond laser pulse in BaWO ₄ crystal: interplay of self-phase modulation, stimulated Raman scattering, and orientational Kerr nonlinearity. Optics Letters, 2021, 46, 697. | 3.3 | 7 |
| 147 | Bactericidal impact of nickel-oxide nanoparticles on foodborne pathogens: Complementary microbiological and IR-spectroscopic insights. Applied Surface Science, 2021, 558, 149857. | 6.1 | 7 |
| 148 | Interaction of pulsed CO and CO ₂ laser radiation with rocks typical of an oil field. , 2000, 3885, 159. | | 6 |
| 149 | Theoretical modelling and experimental studies of the multi-quantum vibration exchange in vibrationally excited CO molecules. Journal Physics D: Applied Physics, 2001, 34, 2230-2236. | 2.8 | 6 |
| 150 | Problems of development of oxygen-iodine laser with electric discharge production of singlet delta oxygen. , 2002, 4760, 506. | | 6 |
| 151 | Electric generators of singlet delta oxygen for an oxygen-iodine laser. Laser Physics, 2006, 16, 155-172. | 1.2 | 6 |
| 152 | Repetitively pulsed and CW sealed-off slab CO laser with cryogenic cooling. , 2007, , . | | 6 |
| 153 | Influence of small oxygen additions on the small-signal-gain dynamics in the active medium of a pulsed electron-beam-controlled discharge CO laser. Quantum Electronics, 2008, 38, 833-839. | 1.0 | 6 |
| 154 | Self-focusing of profiled ultrashort-wavelength laser beams in air. Journal of Experimental and Theoretical Physics, 2013, 116, 197-205. | 0.9 | 6 |
| 155 | Broadband frequency conversion of laser radiation in ZnGeP ₂ crystal. Bulletin of the Lebedev Physics Institute, 2014, 41, 222-225. | 0.6 | 6 |
| 156 | Formation of plasma channels in air under filamentation of focused ultrashort laser pulses. Laser Physics, 2015, 25, 033001. | 1.2 | 6 |
| 157 | Frequency-angular distribution for terahertz emission of single-color laser filament plasma under an electrostatic field. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 2168. | 2.1 | 6 |
| 158 | Influence of air humidity on 248-nm ultraviolet laser pulse filamentation. Optics Letters, 2019, 44, 2165. | 3.3 | 6 |
| 159 | <title>Supersonic electron beam controlled discharge CO laser</title>. , 1991, 1397, 453. | | 5 |
| 160 | High-frequency temporal structure of laser and phase-conjugated signals in intracavity degenerate four-wave mixing of radiation from electron-beam-controlled discharge CO ₂ and CO lasers in their active media. Quantum Electronics, 1997, 27, 614-620. | 1.0 | 5 |
| 161 | Breakdown of highly excited oxygen in a DC electric field. Plasma Physics Reports, 2000, 26, 278-282. | 0.9 | 5 |
| 162 | Theoretical studies on kinetics of singlet oxygen in nonthermal plasma. , 2004, , . | | 5 |

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|-----|--|-----|-----------|
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