

Andrey A Ionin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8674367/publications.pdf>

Version: 2024-02-01

306
papers

3,931
citations

159573

30
h-index

206102

48
g-index

307
all docs

307
docs citations

307
times ranked

2175
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization of nanoparticle yield for biomedical applications at femto-, pico- and nanosecond laser ablation of thin gold films in water. <i>Laser Physics Letters</i> , 2022, 19, 045603.	1.4	4
2	Focusing effects during ultrashort-pulse laser ablative generation of colloidal nanoparticles for antibacterial applications. <i>Laser Physics Letters</i> , 2022, 19, 065601.	1.4	4
3	Generation of silver nanoparticles from thin films and their antibacterial properties. <i>Laser Physics Letters</i> , 2022, 19, 075603.	1.4	2
4	Pulse-width-dependent critical power for self-focusing of ultrashort laser pulses in bulk dielectrics. <i>Optics Letters</i> , 2022, 47, 3487.	3.3	13
5	You shall not pass: Ti nanospoke-based sterilizer in fluid flow reactor. <i>Laser Physics Letters</i> , 2021, 18, 035603.	1.4	3
6	Asymmetric spectral broadening of sub-picosecond laser pulse in BaWO ₄ crystal: interplay of self-phase modulation, stimulated Raman scattering, and orientational Kerr nonlinearity. <i>Optics Letters</i> , 2021, 46, 697.	3.3	7
7	Frequency-angular distribution for terahertz emission of single-color laser filament plasma under an electrostatic field. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 2168.	2.1	6
8	Broadband (8.5–13.5 μm) intra-pulse difference frequency generation in a LiGaS ₂ crystal of a 90-fs 744-nm laser pulse after its continuous redshift in air. <i>Optics Letters</i> , 2021, 46, 3420.	3.3	2
9	Femtosecond-laser-excited luminescence of the A-band in natural diamond and its thermal control. <i>Optical Materials Express</i> , 2021, 11, 2505.	3.0	10
10	Bactericidal impact of nickel-oxide nanoparticles on foodborne pathogens: Complementary microbiological and IR-spectroscopic insights. <i>Applied Surface Science</i> , 2021, 558, 149857.	6.1	7
11	Spectrally-selective mid-IR laser-induced inactivation of pathogenic bacteria. <i>Biomedical Optics Express</i> , 2021, 12, 6317.	2.9	11
12	Birefringent microstructures in bulk fluorite produced by ultrafast pulsewidth-dependent laser inscription. <i>Applied Surface Science</i> , 2021, 568, 150877.	6.1	9
13	Mid-IR-Sensitive n/p-Junction Fabricated on p-Type Si Surface via Ultrashort Pulse Laser n-Type Hyperdoping and High-Temperature Annealing. <i>ACS Applied Electronic Materials</i> , 2021, 3, 769-777.	4.3	1
14	Few Percent Efficient Polarization-Sensitive Conversion in Nonlinear Plasmonic Interactions Inside Oligomeric Gold Structures. <i>Sensors</i> , 2021, 21, 59.	3.8	1
15	Tracing Evolution of Angle-Wavelength Spectrum along the 40-m Postfilament in Corridor Air. <i>Photonics</i> , 2021, 8, 446.	2.0	3
16	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
17	Frequency down-conversion of multiline CO laser into the THz range with ZnGeP ₂ crystal. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	3.3	132
18	In Vitro Destruction of Pathogenic Bacterial Biofilms by Bactericidal Metallic Nanoparticles via Laser-Induced Forward Transfer. <i>Nanomaterials</i> , 2020, 10, 2259.	4.1	10

#	ARTICLE	IF	CITATIONS
19	Ablation of BaWO ₄ Crystal by Ultrashort Laser Pulses. Crystals, 2020, 10, 754.	2.2	1
20	Polarization-Sensitive Surface-Enhanced In Situ Photoluminescence Spectroscopy of S. aureus Bacteria on Gold Nanospikes. Sensors, 2020, 20, 2466.	3.8	5
21	Multifunctional Sulfur-Hyperdoped Silicon Nanoparticles with Engineered Mid-Infrared Sulfur-Impurity and Free-Carrier Absorption. Particle and Particle Systems Characterization, 2020, 37, 2000010.	2.3	5
22	Deeply sub-wavelength laser nanopatterning of Si surface in dielectric fluids: Manipulation by surface plasmon resonance. Applied Surface Science, 2020, 519, 146204.	6.1	28
23	Similarity of angular distribution for THz radiation emitted by laser filament plasma channels of different lengths. Optics Letters, 2020, 45, 4009.	3.3	9
24	Energy deposition parameters revealed in the transition from 3D to 1D femtosecond laser ablation of fluoride at high-NA focusing. Optical Materials Express, 2020, 10, 3291.	3.0	12
25	CO laser sum-frequency comb for atmosphere sensing. Infrared Physics and Technology, 2019, 100, 62-66.	2.9	13
26	Nanosecond-Laser Generation of Nanoparticles in Liquids: From Ablation through Bubble Dynamics to Nanoparticle Yield. Materials, 2019, 12, 562.	2.9	42
27	Nonlinear Frequency Conversion of Broadband Mid-IR Laser Radiation. , 2019, , .		0
28	Surface-Enhanced IR-Absorption Microscopy of Staphylococcus aureus Bacteria on Bactericidal Nanostructured Si Surfaces. Molecules, 2019, 24, 4488.	3.8	9
29	Antibacterial coatings of Se and Si nanoparticles. Applied Surface Science, 2019, 469, 220-225.	6.1	58
30	High-throughput laser generation of Si-nanoparticle based surface coatings for antibacterial applications. Applied Surface Science, 2019, 470, 825-831.	6.1	20
31	Broad-range ultrafast all-optical red-shifting of EUV surface plasmons: Proof-of-principle and advanced surface nanotexturing in aluminum. Applied Surface Science, 2019, 471, 23-27.	6.1	1
32	Super-broadband hybrid mid-infrared laser systems. , 2019, , .		2
33	Hybrid molecular gas laser systems operating within wavelength range of 1.7–19.3 micron. , 2019, , .		3
34	Energy, spectral, and angular properties of post-filamentation channels during propagation in air and condensed media. Journal of the Optical Society of America B: Optical Physics, 2019, 36, G19.	2.1	5
35	Range of multiple filamentation of a terawatt-power large-aperture KrF laser beam in atmospheric air. Journal of the Optical Society of America B: Optical Physics, 2019, 36, G25.	2.1	5
36	Influence of air humidity on 248-nm ultraviolet laser pulse filamentation. Optics Letters, 2019, 44, 2165.	3.3	6

#	ARTICLE	IF	CITATIONS
37	Transverse optical pumping of e-beam excited high-pressure He/Ar mixture with a laser diode array. , 2019, , .		0
38	Comparison of terahertz radiation spectra emitted from single-color IR and UV filaments. , 2019, , .		0
39	Role of ozone in cryogenic plasma of carbon monoxide laser. , 2019, , .		0
40	Milligram-per-second femtosecond laser production of Se nanoparticle inks and ink-jet printing of nanophotonic 2D-patterns. Applied Surface Science, 2018, 436, 662-669.	6.1	28
41	Large-Scale Laser Fabrication of Antifouling Silicon-Surface Nanosheet Arrays via Nanoplasmonic Ablative Self-Organization in Liquid CS ₂ Tracked by a Sulfur Dopant. ACS Applied Nano Materials, 2018, 1, 2461-2468.	5.0	36
42	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
43	Electric Discharge CO Lasers. , 2018, , 201-238.		4
44	Direct laser writing of barriers with controllable permeability in porous glass. Optics Express, 2018, 26, 28150.	3.4	15
45	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
46	Difference frequencies of CO and CO ₂ lasers when tuning phase-matching angle in AgGaSe ₂ crystal. , 2016, , .		0
47	Q-switched cryogenically cooled slab RF discharge CO laser. , 2016, , .		0
48	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
49	Femtosecond laser-induced stress-free ultra-densification inside porous glass. Laser Physics Letters, 2016, 13, 055901.	1.4	23
50	Diffraction microgratings as a novel optical biosensing platform. Laser Physics Letters, 2016, 13, 075602.	1.4	7
51	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
52	Pulse-width-dependent surface ablation of copper and silver by ultrashort laser pulses. Laser Physics Letters, 2016, 13, 076101.	1.4	25
53	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
54	Nanoscale surface boiling in sub-threshold damage and above-threshold spallation of bulk aluminum and gold by single femtosecond laser pulses. Laser Physics Letters, 2016, 13, 025603.	1.4	33

#	ARTICLE	IF	CITATIONS
55	Ultrafast femtosecond laser ablation of graphite. Laser Physics Letters, 2015, 12, 075301.	1.4	13
56	The influence of the energy reservoir on the plasma channel in focused femtosecond laser beams. Laser Physics, 2015, 25, 065402.	1.2	7
57	Nanoscale boiling during single-shot femtosecond laser ablation of thin gold films. JETP Letters, 2015, 101, 394-397.	1.4	33
58	Spectroscopy based on target luminescence caused by interaction with UV filaments. Laser Physics Letters, 2015, 12, 065701.	1.4	3
59	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
60	Dynamic polarization flip in nanoripples on photoexcited Ti surface near its surface plasmon resonance. Optics Letters, 2015, 40, 4967.	3.3	22
61	Structural transformation and residual stresses in surface layers of $\text{Ti-} \pm 2\%$ titanium alloys nanotextured by femtosecond laser pulses. Applied Physics A: Materials Science and Processing, 2015, 119, 241-247.	2.3	34
62	Mode-locked and Q-switched carbon monoxide laser system. Optics Communications, 2015, 345, 163-167.	2.1	17
63	Nonlinear optical dynamics during femtosecond laser nanostructuring of a silicon surface. Laser Physics Letters, 2015, 12, 025902.	1.4	18
64	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
65	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
66	Enhanced relativistic laser-plasma coupling utilizing laser-induced micromodified target. Laser Physics Letters, 2015, 12, 046005.	1.4	16
67	Silicon as a virtual plasmonic material: Acquisition of its transient optical constants and the ultrafast surface plasmon-polariton excitation. Journal of Experimental and Theoretical Physics, 2015, 120, 946-959.	0.9	33
68	Nonlinear evolution of aluminum surface relief under multiple femtosecond laser irradiation. JETP Letters, 2015, 101, 350-357.	1.4	8
69	Multiple filamentation of supercritical UV laser beam in atmospheric air. Nuclear Instruments & Methods in Physics Research B, 2015, 355, 227-231.	1.4	8
70	Formation of plasma channels in air under filamentation of focused ultrashort laser pulses. Laser Physics, 2015, 25, 033001.	1.2	6
71	Femtosecond laser filament and plasma channels in focused beam in air. Proceedings of SPIE, 2015, , .	0.8	1
72	Flash-imprinting of intense femtosecond surface plasmons for advanced nanoantenna fabrication. Optics Letters, 2015, 40, 1687.	3.3	21

#	ARTICLE	IF	CITATIONS
73	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
74	Frequency conversion of mode-locked and Q-switched CO laser radiation with efficiency up to 37%. Optics Letters, 2015, 40, 2997.	3.3	29
75	Experimental study of fs-laser induced sub-100-nm periodic surface structures on titanium. Optics Express, 2015, 23, 5915.	3.4	95
76	Frequency conversion of radiation of IR molecular gas lasers in nonlinear crystals (A review). Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2015, 119, 356-362.	0.6	5
77	Reflection of a probe pulse and thermal emission of electrons produced by an aluminum film heated by a femtosecond laser pulse. Journal of Experimental and Theoretical Physics, 2015, 120, 937-945.	0.9	5
78	Comparative analysis of post-focal filamentation of focused UV and IR laser pulses in air. Quantum Electronics, 2015, 45, 321-329.	1.0	8
79	Specific features of single-pulse femtosecond laser micron and submicron ablation of a thin silver film coated with a micron-thick photoresist layer. Quantum Electronics, 2015, 45, 462-466.	1.0	5
80	Photofragmentation of colloidal solutions of gold nanoparticles under femtosecond laser pulses in IR and visible ranges. Quantum Electronics, 2015, 45, 472-476.	1.0	4
81	Effect of nonlinearity in the pass-through optics on femtosecond laser filament in air. Laser Physics Letters, 2015, 12, 015403.	1.4	4
82	Surface enhanced infrared absorption of a dye on a metallic diffraction grating. JETP Letters, 2014, 100, 295-298.	1.4	9
83	Plasma channels during filamentation of a femtosecond laser pulse with wavefront astigmatism in air. Quantum Electronics, 2014, 44, 1085-1090.	1.0	13
84	Nanostructuring of the surface of silicate glass by femtosecond laser pulses in the UV range. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2014, 81, 262.	0.4	8
85	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
86	Formation of crownlike and related nanostructures on thin supported gold films irradiated by single diffraction-limited nanosecond laser pulses. Physical Review E, 2014, 90, 023017.	2.1	29
87	Broadband hybrid IR laser system emitting within 2.5-16.57 micron. Proceedings of SPIE, 2014, , .	0.8	4
88	Ti:sapphire/KrF hybrid laser system generating trains of subterawatt subpicosecond UV pulses. Quantum Electronics, 2014, 44, 431-439.	1.0	12
89	Structural and electrical characteristics of a hyperdoped silicon surface layer with deep donor sulfur states. JETP Letters, 2014, 100, 55-58.	1.4	8
90	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

#	ARTICLE	IF	CITATIONS
91	Plasma channels under filamentation of infrared and ultraviolet double femtosecond laser pulses. Laser Physics Letters, 2014, 11, 016002.	1.4	7
92	“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
93	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
94	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
95	On the possibility of increasing lifetime of a neutron generator target through laser-induced nanorelief generation at the film “ substrate interface. Quantum Electronics, 2014, 44, 829-835.	1.0	0
96	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
97	Nanoscale hydrodynamic instability in a molten thin gold film induced by femtosecond laser ablation. JETP Letters, 2014, 99, 518-522.	1.4	27
98	Broadband frequency conversion of laser radiation in ZnGeP2 crystal. Bulletin of the Lebedev Physics Institute, 2014, 41, 222-225.	0.6	6
99	Superhydrophilic textures fabricated by femtosecond laser pulses on sub-micro- and nano-crystalline titanium surfaces. Laser Physics Letters, 2014, 11, 125602.	1.4	14
100	Electron dynamics and prompt ablation of aluminum surface excited by intense femtosecond laser pulse. Applied Physics A: Materials Science and Processing, 2014, 117, 1757-1763.	2.3	32
101	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
102	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
103	Femtosecond laser ablation of single-wall carbon nanotube-based material. Laser Physics Letters, 2014, 11, 106101.	1.4	11
104	Enhancement of ultrafast electron photoemission from metallic nanoantennas excited by a femtosecond laser pulse. Laser Physics Letters, 2014, 11, 065301.	1.4	32
105	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
106	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
107	Zeeman Effect treatment in the infrared spectrum of the nitric oxide molecule. , 2014, , .		1
108	Optical apertureless fiber microprobe for surface laser modification of metal films with sub-100nm resolution. Optics Communications, 2013, 308, 125-129.	2.1	13

#	ARTICLE	IF	CITATIONS
109	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
110	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
111	Direct measurement of the characteristic three-body electron attachment time in the atmospheric air in direct current electric field. Applied Physics Letters, 2013, 103, 034106.	3.3	7
112	Sub-100 nanometer transverse gratings written by femtosecond laser pulses on a titanium surface. Laser Physics Letters, 2013, 10, 056004.	1.4	31
113	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
114	Beam spatial profile effect on femtosecond laser surface structuring of titanium in scanning regime. Applied Surface Science, 2013, 284, 634-637.	6.1	25
115	Self-focusing of profiled ultrashort-wavelength laser beams in air. Journal of Experimental and Theoretical Physics, 2013, 116, 197-205.	0.9	6
116	Focusing of intense femtosecond surface plasmon-polaritons. JETP Letters, 2013, 97, 599-603.	1.4	18
117	Controlling plasma channels through ultrashort laser pulse filamentation. , 2013, , .		2
118	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
119	Filamentation of IR and UV femtosecond pulses upon focusing in air. Quantum Electronics, 2013, 43, 29-36.	1.0	26
120	Thermal melting and ablation of silicon by femtosecond laser radiation. Journal of Experimental and Theoretical Physics, 2013, 116, 347-362.	0.9	97
121	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
122	Direct femtosecond laser fabrication of antireflective layer on GaAs surface. Applied Physics B: Lasers and Optics, 2013, 111, 419-423.	2.2	42
123	Through nanohole formation in thin metallic film by single nanosecond laser pulses using optical dielectric apertureless probe. Optics Letters, 2013, 38, 1452.	3.3	38
124	Filamentation of femtosecond laser pulses governed by variable wavefront distortions via a deformable mirror. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2257.	2.1	30
125	Triggering and guiding of electric discharge by a train of sub-TW UV laser pulses. Proceedings of SPIE, 2013, , .	0.8	0
126	Advanced carbon monoxide laser systems. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
127	Broadband carbon monoxide laser system operating in the wavelength range of 2.5 μ m – 8.3 μ m. Quantum Electronics, 2013, 43, 139-143.	1.0	50
128	Local field enhancement on metallic periodic surface structures produced by femtosecond laser pulses. Quantum Electronics, 2013, 43, 304-307.	1.0	7
129	Self-limited ionization of GaAs at high femtosecond laser intensities. , 2012, , .		1
130	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
131	High-power IR- and UV-laser systems and their applications. Physics-Uspekhi, 2012, 55, 721-728.	2.2	7
132	MOPA carbon monoxide laser system emitting nanosecond pulses. Proceedings of SPIE, 2012, , .	0.8	1
133	Femtosecond laser ablation of carbon: From spallation to formation of hot critical plasma. AIP Conference Proceedings, 2012, , .	0.4	13
134	Nonlinear propagation of a high-power focused femtosecond laser pulse in air under atmospheric and reduced pressure. Quantum Electronics, 2012, 42, 319-326.	1.0	4
135	Ultrafast electron dynamics on the silicon surface excited by an intense femtosecond laser pulse. JETP Letters, 2012, 96, 375-379.	1.4	24
136	Sub- and near-threshold femtosecond laser nanostructuring of solid surfaces. , 2012, , .		1
137	Self-limited ionization in bandgap renormalized GaAs at high femtosecond laser intensities. Optical Engineering, 2012, 51, 121808.	1.0	14
138	Comparative study of femtosecond and nanosecond laser ablation for propulsion applications. , 2012, , .		3
139	Advanced CO laser systems. Proceedings of SPIE, 2012, , .	0.8	0
140	Femtosecond laser color marking of metal and semiconductor surfaces. Applied Physics A: Materials Science and Processing, 2012, 107, 301-305.	2.3	74
141	Dynamics of the spallative ablation of a GaAs surface irradiated by femtosecond laser pulses. JETP Letters, 2012, 94, 753-758.	1.4	20
142	Master Oscillator-Power Amplifier carbon monoxide laser system emitting nanosecond pulses. Optics Communications, 2012, 285, 2707-2714.	2.1	12
143	Surface nanostructuring of Ni/Cu foils by femtosecond laser pulses. Quantum Electronics, 2011, 41, 387-392.	1.0	25
144	Near-threshold femtosecond laser fabrication of one-dimensional subwavelength nanogratings on a graphite surface. Physical Review B, 2011, 83, .	3.2	48

#	ARTICLE	IF	CITATIONS
145	Generation and detection of superstrong shock waves during ablation of an aluminum surface by intense femtosecond laser pulses. JETP Letters, 2011, 94, 34-38.	1.4	30
146	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
147	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
148	Third harmonic generation by ultrashort laser pulses tightly focused in air. Laser Physics, 2011, 21, 500-504.	1.2	13
149	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
150	Ultrasound diagnostics of optical breakdown and subcritical microplasma in the laser plume. Bulletin of the Lebedev Physics Institute, 2011, 38, 161-167.	0.6	3
151	Nanocomposites based on globular photonic crystals grown by laser ablation using femtosecond laser pulses. Bulletin of the Lebedev Physics Institute, 2011, 38, 328-333.	0.6	2
152	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
153	Mode-locked CO laser frequency doubling in ZnGeP2 with 25% efficiency. Laser Physics Letters, 2011, 8, 723-728.	1.4	25
154	Mid-IR Zeeman spectrum of nitric oxide molecules in a strong magnetic field. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 025403.	1.5	8
155	Spectroscopic analysis of multicomponent gas mixtures with wide range carbon monoxide laser. Proceedings of SPIE, 2010, , .	0.8	1
156	Slab RF discharge overtone CO laser. , 2010, , .		2
157	Transverse gas flow RF slab discharge generator of singlet delta oxygen for oxygen-iodine laser. Proceedings of SPIE, 2010, , .	0.8	2
158	Non-linear Absorption and Ionization of Gases by Intense Femtosecond Laser Pulses. , 2010, , .		4
159	Femtosecond Laser Micro-structuring Of Transparent Materials And Its Ophthalmologic Applications. , 2010, , .		0
160	Gas-Flow Slab RF Discharge as a Source of Singlet Delta Oxygen for Oxygen Iodine Laser. , 2010, , .		1
161	<title>Carrier dynamics-induced transient photoexcitation and energy deposition in femtosecond-laser irradiated GaAs</title>. , 2010, , .		0
162	Lasers on overtone transitions of carbon monoxide molecule. Laser Physics, 2010, 20, 144-186.	1.2	23

#	ARTICLE	IF	CITATIONS
163	Bulk femtosecond laser marking of natural diamonds. Laser Physics, 2010, 20, 1778-1782.	1.2	21
164	Peculiarities of filamentation of sharply focused ultrashort laser pulses in air. Journal of Experimental and Theoretical Physics, 2010, 111, 724-730.	0.9	25
165	In vitro femtosecond laser subsurface micro-disruption inside human cornea and pre-cleared sclera. Laser Physics Letters, 2010, 7, 463-466.	1.4	15
166	Evolution of black silicon nano- and micro-scale surface topologies upon femtosecond laser irradiation. Proceedings of SPIE, 2010, , .	0.8	0
167	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
168	Femtosecond laser nanostructuring of metals: sub100-nm one-dimensional surface gratings. Proceedings of SPIE, 2010, , .	0.8	0
169	Nanostructuring of solid surfaces by femtosecond laser pulses. , 2010, , .		3
170	Near-critical phase explosion promoting breakdown plasma ignition during laser ablation of graphite. Physical Review E, 2010, 82, 016404.	2.1	41
171	CO laser frequency conversion in nonlinear crystals ZnGeP ₂ and GaSe. Proceedings of SPIE, 2010, , .	0.8	2
172	Optical and ultrasonic signatures of femtosecond pulse filamentation in fused silica. Journal of Applied Physics, 2009, 105, .	2.5	18
173	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
174	Slab overtone carbon monoxide laser. Proceedings of SPIE, 2009, , .	0.8	1
175	Femtosecond laser writing of subwave one-dimensional quasiperiodic nanostructures on a titanium surface. JETP Letters, 2009, 90, 107-110.	1.4	80
176	Tunneling ionization of air in the strong field of femtosecond laser pulses. JETP Letters, 2009, 90, 181-185.	1.4	9
177	Multiple filamentation of intense femtosecond laser pulses in air. JETP Letters, 2009, 90, 423-427.	1.4	39
178	RF discharge slab CO laser operating in both fundamental and first-overtone bands. Optics Communications, 2009, 282, 629-634.	2.1	17
179	Carbon monoxide laser emitting nanosecond pulses with 10MHz repetition rate. Optics Communications, 2009, 282, 294-299.	2.1	23
180	Optical and ultrasonic monitoring of femtosecond laser filamentation in fused silica. Applied Surface Science, 2009, 255, 9721-9723.	6.1	0

#	ARTICLE	IF	CITATIONS
181	A cryogenic slab CO laser. Quantum Electronics, 2009, 39, 229-234.	1.0	7
182	Slab Overtone CO Laser Operating in the 2.5–4.0 Micron Spectral Range. IEEE Journal of Quantum Electronics, 2009, 45, 215-217.	1.9	9
183	Monitoring of microplasma formation and filamentation of tightly focused femtosecond laser pulses in dielectrics. , 2009, , .		0
184	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
185	Pulsed electron-beam sustained discharge CO laser on oxygen-containing gas mixtures. Quantum Electronics, 2008, 38, 115-124.	1.0	7
186	XeO luminescence in a self-sustained slab radio-frequency discharge. Bulletin of the Lebedev Physics Institute, 2008, 35, 111-112.	0.6	1
187	Carbon monoxide laser emitting nanosecond pulses with 10 MHz repetition rate. , 2008, , .		0
188	Acoustic monitoring of microplasma formation and filamentation of tightly focused femtosecond laser pulses in silica glass. Applied Physics Letters, 2008, 92, .	3.3	22
189	First-Overtone CO Laser as a Potential Driver for Beamed Energy Propulsion. AIP Conference Proceedings, 2008, , .	0.4	1
190	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
191	Nonlinear ionization of pure atomic and molecular gases by intense UV femtosecond laser pulses. Proceedings of SPIE, 2008, , .	0.8	0
192	RF discharge slab carbon monoxide laser: overtone lasing (2.5-4.0 micron) and fundamental band tuning (5.0-6.5 micron). Proceedings of SPIE, 2008, , .	0.8	0
193	Influence of nitrogen oxides NO and NO ₂ additives on singlet oxygen production in pulsed electron-beam sustained discharge. , 2008, , .		0
194	Influence of nitrogen oxides on singlet delta oxygen production in pulsed electric discharge for oxygen-iodine laser. , 2008, , .		1
195	Mode-locked electron-beam sustained discharge CO laser. Proceedings of SPIE, 2008, , .	0.8	0
196	Multifrequency laser probing of CO-containing gas mixtures excited in a pulsed discharge. Quantum Electronics, 2007, 37, 231-236.	1.0	7
197	Femtosecond laser surface ablation of transparent solids: understanding the bulk filamentation damage. Proceedings of SPIE, 2007, , .	0.8	1
198	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

#	ARTICLE	IF	CITATIONS
199	High power optical sources of femtosecond pulses on the base of hybrid laser systems with wide-aperture gas laser amplifiers. Proceedings of SPIE, 2007, , .	0.8	0
200	Mechanisms of femtosecond laser nanomachining of dielectric surfaces. , 2007, , .		0
201	Repetitively pulsed and CW sealed-off slab CO laser with cryogenic cooling. , 2007, , .		6
202	Small signal gain in a pulsed CO laser amplifier operating on oxygen containing gas mixtures. , 2007, , .		0
203	High-power optical sources of femtosecond pulses on the base of hybrid laser systems with wide-aperture gas laser amplifiers. , 2007, , .		0
204	Cryogenic sealed-off slab CO laser excited by repetitively pulsed RF discharge. Proceedings of SPIE, 2007, , .	0.8	0
205	Physics and engineering of singlet delta oxygen production in low-temperature plasma. Journal Physics D: Applied Physics, 2007, 40, R25-R61.	2.8	256
206	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
207	Nonlinear Zeeman splitting of nitric oxide spectral lines in magnetic field. Proceedings of SPIE, 2007, , .	0.8	3
208	A pulsed overtone CO laser with efficiency of 16%. Quantum Electronics, 2006, 36, 1153-1154.	1.0	15
209	Compact sealed-off cryogenic slab RF discharge CO laser. , 2006, , .		4
210	Pulsed CO laser and laser amplifier operating on oxygen containing gas mixtures. , 2006, , .		0
211	The development of TW and PW optical sources of femtosecond pulses on the base of hybrid laser systems with wide-aperture gas laser amplifiers. , 2006, , .		1
212	Singlet delta oxygen production in self-sustained and non-self-sustained slab discharges. , 2006, 6101, 516.		2
213	<title>Supersonic overtone CO laser: research and development</title>. , 2006, 6263, 18.		0
214	Singlet delta oxygen production in a slab discharge in oxygen. , 2006, 6346, 975.		0
215	<title>Fundamental and overtone band lasing in RF discharge supersonic CO laser</title>. , 2006, 6053, 63.		0
216	Singlet delta oxygen in a slab discharge. , 2006, 6261, 344.		0

#	ARTICLE	IF	CITATIONS
217	Electric generators of singlet delta oxygen for an oxygen-iodine laser. Laser Physics, 2006, 16, 155-172.	1.2	6
218	Singlet oxygen in the low-temperature plasma of an electron-beam-sustained discharge. Plasma Physics Reports, 2006, 32, 429-439.	0.9	5
219	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
220	Investigation of laser ablation of fused and crystal silica and natural silicates induced by pulsed CO ₂ laser irradiation. , 2006, 6053, 227.		0
221	Measurements of the thermodynamic parameters for CO laser gas mixtures excited by pulsed electron-beam sustained discharge. , 2005, , .		0
222	Singlet delta oxygen production in e-beam sustained discharge: theory and experiment. , 2005, 5777, 207.		3
223	O ₂ ($\hat{1}\pm\hat{1}''$ g) concentration measuring by intracavity laser spectroscopy of b $\hat{1}\hat{1}\hat{x}$ g+ $\hat{1}\pm\hat{1}''$ g transition. , 2005, , .		2
224	Effect of the vibrational excitation of CO molecules on the parameters of an RF discharge. Plasma Physics Reports, 2005, 31, 786-794.	0.9	3
225	Spectroscopic Detection of Sulfur Oxides in the Aircraft Wake. Journal of Russian Laser Research, 2005, 26, 402-426.	0.6	21
226	High-power supersonic CO laser on fundamental and overtone transitions. Quantum Electronics, 2005, 35, 1126-1130.	1.0	18
227	Gain dynamics in the active medium of a pulsed e-beam sustained discharge CO laser: theory and experiment. Quantum Electronics, 2005, 35, 1107-1112.	1.0	3
228	Time behavior of small-signal gain on high vibrational transitions for pulsed CO laser amplifier with gas mixtures CO:He, CO:N ₂ , and CO:O ₂ . , 2005, 5777, 418.		0
229	Measurement of the O ₂ (b $\hat{1}\hat{1}\hat{x}$ g+ $\hat{a}\hat{1}''$ g) transition probability by the method of intracavity laser spectroscopy. Quantum Electronics, 2005, 35, 378-384.	1.0	14
230	CO laser: advances in theory and experiment. , 2005, , .		1
231	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
232	Theoretical studies on kinetics of singlet oxygen in nonthermal plasma. , 2004, , .		5
233	Small signal gain time behavior on high vibrational transitions ($V\geq 15$) of pulsed CO laser amplifier. , 2004, 5479, 156.		0
234	A new laser technique for the formation of oxide surface complexes on carbon cloth. Carbon, 2004, 42, 443-445.	10.3	8

#	ARTICLE	IF	CITATIONS
235	Supersonic RF discharge CO laser operating in fundamental ($\hat{v}''=1$) and overtone ($\hat{v}''=2$) spectral bands. , 2004, , .		3
236	Electric properties, spectroscopy, and singlet delta oxygen yield of electron-beam sustained discharge in oxygen gas mixtures. , 2004, , .		1
237	The feature of laser ablation of fused and crystal silica and natural silicates induced by pulsed CO ₂ laser irradiation. , 2004, , .		0
238	Electron-beam sustained discharge in oxygen gas mixtures: singlet delta oxygen production for oxygen-iodine laser. , 2004, , .		2
239	The methods of singlet oxygen detection for DOIL program. , 2004, , .		5
240	Glow discharge in singlet oxygen. Plasma Physics Reports, 2003, 29, 211-219.	0.9	24
241	Detection capabilities of different molecular lasers in infrared spectroscopic diagnostics of multicomponent gas mixtures. , 2003, , .		2
242	Turbulent structure of the active medium of a fast-flow CO ₂ laser. Quantum Electronics, 2003, 33, 671-676.	1.0	4
243	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
244	Multicomponent gas analysis with first-overtone CO laser. , 2002, , .		2
245	Plasma chemical oxygen-iodine laser: problems of development. , 2002, , .		3
246	Small-signal gain and kinetic processes on highly excited vibrational levels in active medium of pulsed first-overtone CO laser. , 2002, , .		0
247	Physics of laser action using high vibrational excitation of CO molecule. , 2002, , .		0
248	Problems of development of oxygen-iodine laser with electric discharge production of singlet delta oxygen. , 2002, 4760, 506.		6
249	Applications of high-power laser technology to wide-bandgap nitride semiconductor processing. , 2002, 4760, 143.		0
250	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
251	Spectrum formation of pulsed first-overtone CO laser operating on highly excited vibrational transitions. Proceedings of SPIE, 2000, , .	0.8	0
252	Frequency-tunable optically pumped carbon monoxide laser. , 2000, , .		0

#	ARTICLE	IF	CITATIONS
253	Efficient first-overtone CO laser ($\lambda=2.5\text{-}4.2\text{ }\mu\text{m}$). Proceedings of SPIE, 2000, , .	0.8	1
254	Efficient first-overtone CO laser frequency tuned within the spectral range of $2.5\text{-}4.2\text{ }\mu\text{m}$. , 2000, , .		0
255	Frequency-tunable single-line pulsed first-overtone carbon monoxide laser. , 2000, 3889, 482.		0
256	Carbon monoxide lasers: problems of physics and engineering. , 2000, , .		3
257	Interaction of pulsed CO and CO ₂ laser radiation with rocks typical of an oil field. , 2000, 3885, 159.		6
258	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
259	Frequency tunable single-line pulsed first-overtone carbon monoxide laser. Optics Communications, 2000, 180, 285-300.	2.1	11
260	Alternation of vibrational band intensities in multiline pulsed first-overtone CO laser spectrum. Optics Communications, 2000, 178, 377-381.	2.1	2
261	Breakdown of highly excited oxygen in a DC electric field. Plasma Physics Reports, 2000, 26, 278-282.	0.9	5
262	Efficient first-overtone CO laser as a potential source of IR radiation ($\lambda=2.5\text{ to }4.2\text{ }\mu\text{m}$) for frequency-selective laser ablation. , 2000, 3885, 34.		0
263	Multiquantum vibrational exchange in highly excited CO molecules. Quantum Electronics, 2000, 30, 573-579.	1.0	10
264	Pulsed laser operating on the first overtone of the CO molecule in the $2.5\text{--}4.2\text{ }\mu\text{m}$ range. II. Frequency-selective lasing. Quantum Electronics, 2000, 30, 859-866.	1.0	16
265	Pulsed laser operating on the first vibrational overtone of the CO molecule in the $2.5\text{--}4.2\text{ }\mu\text{m}$ range: 1. Multifrequency lasing. Quantum Electronics, 2000, 30, 771-777.	1.0	19
266	Intracavity phase conjugation of the radiation from a pulsed frequency-selective CO laser. Quantum Electronics, 2000, 30, 342-348.	1.0	0
267	International forum on advanced high-power lasers and applications (AHPLA '99). Quantum Electronics, 2000, 30, 462-469.	1.0	0
268	Interaction of pulsed CO and CO ₂ . Proceedings of SPIE, 2000, 4065, 602.	0.8	3
269	Efficient pulsed first-overtone CO laser operating within the spectral range of $2.5\text{-}4.2\text{ }\mu\text{m}$. IEEE Journal of Quantum Electronics, 2000, 36, 810-823.	1.9	24
270	Frequency-tunable optically pumped carbon monoxide laser. IEEE Journal of Quantum Electronics, 2000, 36, 1041-1052.	1.9	27

#	ARTICLE	IF	CITATIONS
271	Pulsed first-overtone CO laser with output efficiency higher than 10%. Optics Communications, 1999, 171, 107-112.	2.1	8
272	Pulsed first-overtone CO laser: effective source of IR radiation in spectral range of 2.5–4.0 μ m. Optics Communications, 1999, 160, 255-260.	2.1	10
273	Effective multiline pulsed first-overtone CO laser operating in a spectral range of 2.5 to 4.1 μ m. , 1999, , .		2
274	Parametric study of first-overtone CO laser with suppressed fundamental band lasing: experiment and theory. Optics Communications, 1998, 155, 197-205.	2.1	13
275	Parametric study of a first overtone CO laser with suppressed fundamental band lasing: experiment and theory. , 1998, , .		1
276	Nonlinear optical properties of the active medium in intracavity phase conjugation of the radiation of a pulsed electron-beam-controlled discharge CO ₂ laser. I. Experiments. Quantum Electronics, 1998, 28, 719-724.	1.0	0
277	Nonlinear optical properties of the active medium in intracavity phase conjugation of the radiation of a pulsed electron-beam-controlled discharge CO ₂ laser. II. Theoretical analysis. Quantum Electronics, 1998, 28, 881-886.	1.0	0
278	<title>Application of CO laser for frequency-selective surface heat treatment of polymer materials</title>. , 1998, 3343, 1032.		3
279	Phase conjugation at intracavity degenerate four-wave mixing of frequency-selective pulsed CO laser radiation. , 1998, , .		0
280	Frequency-selected Q-switched e-beam-controlled discharge CO laser and its applications. , 1998, , .		0
281	<title>Intracavity phase conjugation of pulsed CO<math>\langle inf \rangle \langle roman \rangle 2 \langle /roman \rangle \langle /inf \rangle \langle /math> laser radiation</title>. , 1998, 3343, 742.		0
282	Frequency-selective surface processing of polymer materials by pulsed CO laser radiation. Quantum Electronics, 1997, 27, 744-748.	1.0	2
283	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
284	High-frequency temporal structure of laser and phase-conjugated signals at intracavity degenerate four-wave mixing of CO ₂ and CO laser radiation inside their inverted medium. , 1997, , .		0
285	Parametric study of intracavity degenerate four-wave mixing and phase conjugation of CO ₂ and CO lasers radiation in their inverted medium. , 1997, , .		0
286	<title>Frequency-selected surface heat treatment of polymeric materials by pulsed CO laser radiation</title>. Proceedings of SPIE, 1997, 2993, 239.	0.8	1
287	Multiquantum VV-exchange modeling of the pulsed Q-switched frequency selected CO laser. , 1997, , .		2
288	Irradiation of fabrics of nylon and poly(ethylene terephthalate) with short frequency-selected pulses from CO ₂ , and CO, excimer lasers. , 1997, , .		3

#	ARTICLE	IF	CITATIONS
289	Transient four-wave mixing of pulsed CO ₂ laser radiation in semiconductors. , 1997, 3092, 333.		0
290	<title>High-frequency temporal structure of laser and phase-conjugated signals at intracavity degenerate four-wave mixing of CO ₂ and CO laser radiation in their inverted medium</title>. , 1997, , .		0
291	Degenerate four-wave mixing and phase conjugation of pulsed 10- μ m laser radiation on transient gratings inside an inverted CO ₂ medium. , 1996, , .		0
292	Frequency-selected Q-switched electron-beam-controlled discharge CO laser. , 1996, , .		0
293	Degenerate four-wave mixing and phase conjugation of pulsed CO ₂ laser radiation on transient gratings inside its own inverted medium. , 1996, 2702, 437.		0
294	Eurolaser activities and EU113 achievements in particular. , 1996, 2713, 103.		2
295	<title>Active medium of long-pulsed CO ₂ and CO laser as a phase conjugating mirror</title>. , 1995, , .		0
296	<title>Room temperature repetitively pulsed e-beam sustained carbon monoxide laser</title>. , 1995, , .		4
297	<title>High-power CO lasers for materials processing</title>. , 1994, , .		0
298	<title>Phase-conjugation of high-power molecular CO ₂ and CO lasers radiation inside their active medium</title>. , 1994, 2206, 230.		0
299	<title>High-power N ₂ O laser as alternative to CO ₂ laser</title>. , 1994, , .		4
300	HIGH PRESSURE N ₂ O LASER : DISCHARGE PROPERTIES, GAIN AND SPECTRA. European Physical Journal Special Topics, 1991, 01, C7-729-C7-735.	0.2	0
301	<title>High-power electron beam controlled discharge N ₂ O laser</title>. , 1991, 1397, 461.		0
302	<title>Supersonic electron beam controlled discharge CO laser</title>. , 1991, 1397, 453.		5
303	High-power pulsed and repetitively pulsed electron-beam-controlled discharge CO laser systems. , 1991, , .		0
304	Pulsed electroionization carbon monoxide laser amplifiers. Infrared Physics, 1989, 29, 347-350.	0.5	1
305	Master-oscillator-amplifier electroionization carbon monoxide laser system and propagation of its radiation through atmosphere. Journal of Infrared, Millimeter and Terahertz Waves, 1987, 8, 549-571.	0.6	4
306	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