

Olga G Kosareva

List of Publications by Year in descending order

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152
papers

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citations

109137

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152
all docs

152
docs citations

152
times ranked

1744
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-range robust multifilament arrays from terawatt femtosecond beam. Laser Physics Letters, 2022, 19, 015201.	0.6	8
2	All-optical attoclock for imaging tunnelling wavepackets. Nature Physics, 2022, 18, 417-422.	6.5	12
3	Low-Frequency Content of THz Emission from Two-Color Femtosecond Filament. Photonics, 2022, 9, 17.	0.9	8
4	Interdigitated photoconductive antenna-based two-color femtosecond laser filamentation THz time-domain spectral detection. Optics Express, 2022, 30, 18562.	1.7	4
5	Dual-wavelength filamentation with a fraction of fundamental laser frequency as a wideband THz source. Laser Physics Letters, 2021, 18, 025401.	0.6	7
6	Continuous transition from X - to O -shaped angle-wavelength spectra of a femtosecond filament in a gas mixture. Physical Review A, 2021, 103, .	1.0	2
7	Postfilament supercontinuum on 100 μ m path in air. Optics Letters, 2021, 46, 1125.	1.7	15
8	Dispersion Management of Mid-Infrared Filamentation in Dense Gases. , 2021, , .		0
9	Remote triggering of air-gap discharge by a femtosecond laser filament and postfilament at distances up to 80 m. Applied Physics Letters, 2021, 119, .	1.5	13
10	Transformation of the frequency-angular spectrum of THz emissions produced by a single-color laser filament under an external electrostatic field of various strength. Laser Physics Letters, 2021, 18, 115401.	0.6	4
11	Robust multifilament arrays in air by Damman grating. Optics Express, 2021, 29, 34189-34204.	1.7	16
12	Multiple Filamentation Effects on THz Radiation Pattern from Laser Plasma in Air. Photonics, 2021, 8, 4.	0.9	7
13	Flat-top THz directional diagram of a DC-biased filament. Optics Letters, 2021, 46, 5497.	1.7	15
14	Tracing Evolution of Angle-Wavelength Spectrum along the 40-m Postfilament in Corridor Air. Photonics, 2021, 8, 446.	0.9	3
15	Balance of emission from THz sources in DC-biased and unbiased filaments in air. Optics Express, 2021, 29, 40687.	1.7	6
16	Superposition of 2 π and Electrostatic Field Induced Terahertz Waveforms in DC-Biased Two-Color Filament. Applied Sciences (Switzerland), 2021, 11, 11888.	1.3	4
17	Effect of Molecular Orbital Angular Momentum on the Spatial Distribution of Fluorescence during Femtosecond Laser Filamentation in Air. Journal of Physical Chemistry Letters, 2020, 11, 730-734.	2.1	11
18	Genetic algorithm for the location control of femtosecond laser filament. Scientific Reports, 2020, 10, 12878.	1.6	5

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19	Fabricating THz spiral zone plate by high throughput femtosecond laser air filament direct writing. <i>Scientific Reports</i> , 2020, 10, 13965.	1.6	3
20	Spectrally selective modulation of terahertz radiation beams. <i>Quantum Electronics</i> , 2020, 50, 1029-1033.	0.3	1
21	Tracing Air-Breakdown Plasma Characteristics from Single-Color Filament Terahertz Spectra. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2020, 41, 1105-1113.	1.2	5
22	Nonlinear Enhancement of Resonance Absorption at the Filamentation of a Mid-Infrared Pulse in High-Pressure Gases. <i>JETP Letters</i> , 2020, 111, 31-35.	0.4	7
23	Efficient Multifocal Structured Illumination Microscopy Utilizing a Spatial Light Modulator. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4396.	1.3	1
24	THz generation from laser-induced breakdown in pressurized molecular gases: on the way to terahertz remote sensing of the atmospheres of Mars and Venus. <i>New Journal of Physics</i> , 2020, 22, 013039.	1.2	20
25	Femtosecond filament emergence between π -shifted beamlets in air. <i>Optics Express</i> , 2020, 28, 1002.	1.7	12
26	Enhancement of third harmonic yield in fused filaments due to Gouy shift suppression. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 1406.	0.9	0
27	Water vapor based dispersion management in a high-pressure gas cell. <i>Journal of Physics: Conference Series</i> , 2020, 1692, 012019.	0.3	0
28	Optimization of terahertz production from femtosecond multi- and superfilaments in air. , 2020, , .		0
29	Nonlinear transparency window for ultraintense femtosecond laser pulses in the atmosphere. <i>Physical Review A</i> , 2019, 100, .	1.0	12
30	Influence of the Tilting Angle of a BBO Crystal on the Terahertz Radiation Produced by a Dual-Color Femtosecond Laser. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2019, 9, 669-674.	2.0	4
31	Tight focusing of electromagnetic fields by large-aperture mirrors. <i>Physical Review E</i> , 2019, 100, 033316.	0.8	8
32	Polarization Singularities Nucleation in the Self-focusing of an Elliptically Polarized Laser Beam in Kerr Medium and Isotropic Phase of Nematic Liquid Crystal. <i>Springer Series in Chemical Physics</i> , 2019, , 3-17.	0.2	0
33	Acoustic Signal for Femtosecond Filament Plasma Grating Characterization in Air. <i>Springer Series in Chemical Physics</i> , 2019, , 343-353.	0.2	0
34	The Focal Length Effect on Energy Absorption and Terahertz Generation upon Focusing Two-Color Radiation in Air. <i>Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo) Tj ETQq0 0 0 rgBT. Overlock 10 Tf 50</i>		
35	Waveform, spectrum, and energy of backward terahertz emission from two-color femtosecond laser induced microplasma. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	20
36	Transverse structure and energy deposition by a subTW femtosecond laser in air: from single filament to superfilament. <i>New Journal of Physics</i> , 2019, 21, 033027.	1.2	16

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37	Terahertz emission from a single-color ultraviolet filament. Laser Physics Letters, 2019, 16, 105403.	0.6	4
38	Third-harmonic generation from regularized converging filaments. Journal of the Optical Society of America B: Optical Physics, 2019, 36, A66.	0.9	7
39	From loosely focused multifilamentation to superfilamentation: effect of focusing conditions. , 2019, , .		0
40	Effect of phase front modulation on the merging of multiple regularized femtosecond filaments. Laser Physics Letters, 2018, 15, 045402.	0.6	15
41	Backward terahertz emission from two-color laser induced plasma spark. EPJ Web of Conferences, 2018, 195, 03010.	0.1	0
42	Terahertz generation from single and multiple filaments in air. EPJ Web of Conferences, 2018, 195, 03013.	0.1	0
43	Optimum chirp for efficient terahertz generation from two-color femtosecond pulses in air. Applied Physics Letters, 2018, 113, .	1.5	33
44	Ring and unimodal angular-frequency distribution of THz emission from two-color femtosecond plasma spark. Optics Express, 2018, 26, 18202.	1.7	20
45	Nonperturbative diagnostics of multiple filamentation and superfilamentation of powerful femtosecond laser pulses in air. , 2018, , .		0
46	Polarization control of terahertz radiation from two-color femtosecond gas breakdown plasma. Optics Letters, 2018, 43, 90.	1.7	30
47	Near-infrared conical emission from 800-nm filament in air. Laser Physics Letters, 2017, 14, 035401.	0.6	6
48	Spatial filtering of radiation from wire lasers. Laser Physics Letters, 2017, 14, 045001.	0.6	4
49	Nonlinearly enhanced linear absorption under filamentation in mid-infrared (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5		
50	Symmetry Breaking and Strong Persistent Plasma Currents via Resonant Destabilization of Atoms. Physical Review Letters, 2017, 119, 243202.	2.9	2
51	Backward Terahertz Radiation from a Two-Color Femtosecond Laser Filament. JETP Letters, 2017, 106, 706-708.	0.4	13
52	Nonlinear increase in the energy input into a medium at the fusion of regularized femtosecond filaments. JETP Letters, 2017, 106, 561-564.	0.4	15
53	Fifteen meter long uninterrupted filaments from sub-terawatt ultraviolet pulse in air. Optics Express, 2017, 25, 25386.	1.7	26
54	3D terahertz beam profiling from two color laser induced plasma with different focusing. EPJ Web of Conferences, 2017, 149, 05011.	0.1	1

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55	Terahertz and Mid-Infrared Radiation from Femtosecond Filaments in Gases. Springer Series in Chemical Physics, 2017, , 35-43.	0.2	0
56	Polarization Of THz radiation generated during two-color filamentation of arbitrarily polarized laser pulses. , 2016, , .		0
57	Supercontinuum of a $3.9\text{-}\mu\text{m}$ filament in air: Formation of a two-octave plateau and nonlinearly enhanced linear absorption. Physical Review A. 2016. 94. ,	1.0	28
58	Laser optoacoustic diagnostics of femtosecond filaments in air using wideband piezoelectric transducers. Laser Physics Letters, 2016, 13, 095401.	0.6	20
59	Fusion of regularized femtosecond filaments in air: far field on-axis emission. Laser Physics Letters, 2016, 13, 116005.	0.6	18
60	The optical waveguide generated by acoustic waves emitted from femtoseconds filaments. , 2016, , .		4
61	Filamentation of four beams under focusing in air. , 2016, , .		0
62	Generation of polarization singularities in the self-focusing of an elliptically polarized laser beam in an isotropic Kerr medium. Physica D: Nonlinear Phenomena, 2016, 332, 73-78.	1.3	12
63	Ultrabroad Terahertz Spectrum Generation from an Air-Based Filament Plasma. Physical Review Letters, 2016, 116, 063902.	2.9	202
64	Propagation equation for tight-focusing by a parabolic mirror. Optics Express, 2015, 23, 31240.	1.7	33
65	Spatio-spectral characteristics of THz radiation from two-color femtosecond filament. , 2015, , .		0
66	Spectrum and polarization of THz radiation from two-color femtosecond laser breakdown: Theory and experiment. , 2015, , .		1
67	Laser-induced plasma influence onto intrapulse four-wave mixing under femtosecond filamentation in air. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 094017.	0.6	6
68	Robust near-infrared light bullet in 800-nm femtosecond light filaments in air. Applied Physics B: Lasers and Optics, 2015, 120, 383-387.	1.1	7
69	Simultaneous generation of nonlinear optical harmonics and terahertz radiation in air: polarization discrimination of various nonlinear contributions. Frontiers of Optoelectronics, 2015, 8, 73-80.	1.9	18
70	Directionality of terahertz radiation emitted from an array of femtosecond filaments in gases. Laser Physics Letters, 2014, 11, 125401.	0.6	23
71	Four-wave mixing in molecular gases under filamentation of the collimated femtosecond beam. Laser Physics Letters, 2014, 11, 125302.	0.6	3
72	Study of terahertz-radiation-induced DNA damage in human blood leukocytes. Quantum Electronics, 2014, 44, 247-251.	0.3	28

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73	3D Raman bullet formed under filamentation of femtosecond laser pulses in air and nitrogen. Applied Physics B: Lasers and Optics, 2013, 110, 123-130.	1.1	15
74	Femtosecond coherent control of THz spectra driven by free- and coupled electrons in gas plasma. , 2013, , .		0
75	Filamentation of arbitrary polarized femtosecond laser pulses in case of high-order Kerr effect. Optics Letters, 2013, 38, 537.	1.7	18
76	Transformation of terahertz spectra emitted from dual-frequency femtosecond pulse interaction in gases. Optics Letters, 2013, 38, 1906.	1.7	84
77	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.	0.9	30
78	Femtosecond coherent control of THz spectra driven by free- and coupled electrons in gas plasma. , 2013, , .		0
79	Femtosecond laser filament in different air pressures simulating vertical propagation up to 10 km. Laser Physics Letters, 2012, 9, 868-874.	0.6	22
80	Single-cycle pulse generation in the course of four-wave mixing in the filament. , 2012, , .		3
81	Advances in intense femtosecond laser filamentation in air. Laser Physics, 2012, 22, 1-53.	0.6	240
82	Arrest of self-focusing collapse in femtosecond air filaments: higher order Kerr or plasma defocusing?. Optics Letters, 2011, 36, 1035.	1.7	67
83	Filamentation of femtosecond Gaussian pulses with close-to-linear or -circular elliptical polarisation. Quantum Electronics, 2011, 41, 160-162.	0.3	14
84	Angular distribution of the terahertz radiation intensity from the plasma channel of a femtosecond filament. JETP Letters, 2011, 93, 638-641.	0.4	36
85	Analysis of Dual Frequency Interaction in the Filament with the Purpose of Efficiency Control of THz Pulse Generation. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 1157-1167.	1.2	14
86	Formation and evolution of intense, post-filamentation, ionization-free low divergence beams. Optics Communications, 2011, 284, 3601-3606.	1.0	46
87	Measurement of birefringence inside a filament. Physical Review A, 2011, 84, .	1.0	11
88	Filamentation of femtosecond laser radiation with a non-Gaussian transverse spatial profile. Quantum Electronics, 2011, 41, 958-962.	0.3	6
89	Intensity clamping in the filament of femtosecond laser radiation. Quantum Electronics, 2011, 41, 382-386.	0.3	31
90	Polarization rotation due to femtosecond filamentation in an atomic gas. Optics Letters, 2010, 35, 2904.	1.7	34

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91	Few-cycle optical pulse production from collimated femtosecond laser beam filamentation. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 667.	0.9	22
92	Self and forced periodic arrangement of multiple filaments in glass. Optics Express, 2010, 18, 1801.	1.7	29
93	Spectral “soliton” transformation and four-wave mixing under femtosecond laser radiation filamentation in molecular gases. , 2009, , .		0
94	Femtosecond filaments as a new type of laser guide stars for astronomical adaptive optics. Quantum Electronics, 2009, 39, 560-565.	0.3	3
95	Generation of optical pulses of duration down to 8 fs upon filamentation of collimated femtosecond laser radiation in argon. Quantum Electronics, 2009, 39, 879-881.	0.3	7
96	A simple method to significantly increase filamentsâ€™ length andÂionization density. Applied Physics B: Lasers and Optics, 2009, 94, 249-257.	1.1	33
97	Filamentation â€™remoteâ€™ sensing of chemical and biological agents/pollutants using only one femtosecond laser source. Applied Physics B: Lasers and Optics, 2009, 95, 1-12.	1.1	127
98	Investigation of the transformation of the spectrum of femtosecond laser radiation on filamentation in gas medium. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2009, 107, 429-434.	0.2	4
99	Can we reach very high intensity in air with femtosecond PW laser pulses?. Laser Physics, 2009, 19, 1776-1792.	0.6	60
100	Characterization of terahertz emission from a dc-biased filament in air. Applied Physics Letters, 2009, 95, .	1.5	55
101	Filamentation of high-power femtosecond laser radiation. Quantum Electronics, 2009, 39, 205-228.	0.3	260
102	Self-focusing and Filamentation of Powerful Femtosecond Laser Pulses. Topics in Applied Physics, 2009, , 371-398.	0.4	1
103	The Physics of Intense Femtosecond Laser Filamentation. Topics in Applied Physics, 2009, , 349-370.	0.4	2
104	Ultrafast laser filamentation control techniques for remote applications. , 2009, , .		0
105	Optimization of a femtosecond pulse self-compression region along a filament in air. Applied Physics B: Lasers and Optics, 2008, 91, 35-43.	1.1	49
106	Observation of filamentation-induced continuous self-frequency down shift in air. Applied Physics B: Lasers and Optics, 2008, 91, 219-222.	1.1	33
107	What is a filament?. Laser Physics, 2008, 18, 962-964.	0.6	26
108	Few cycle powerful pulse production under filamentation in gaseous media without external compressor. , 2008, , .		0

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109	Some Fundamental Concepts of Femtosecond Laser Filamentation. , 2008, , 243-264.		10
110	Spatio-temporal control of femtosecond laser pulse filamentation in the atmosphere. , 2007, 6733, 369.		3
111	Plasma channel localisation during multiple filamentation in air. Quantum Electronics, 2007, 37, 1153-1158.	0.3	9
112	Improved reproducibility of conical emission from glass under axicon focusing of femtosecond laser pulse. Proceedings of SPIE, 2007, , .	0.8	0
113	Evolution and termination of a femtosecond laser filament in air. Optics Letters, 2007, 32, 3477.	1.7	35
114	Role of phase matching in pulsed second-harmonic generation: Walk-off and phase-locked twin pulses in negative-index media. Physical Review A, 2007, 76, .	1.0	76
115	Pulse shortening due to filamentation in transparent medium. Laser Physics Letters, 2007, 4, 126-132.	0.6	39
116	Optimum small-scale management of random beam perturbations in a femtosecond laser pulse. Applied Physics B: Lasers and Optics, 2007, 87, 29-36.	1.1	25
117	Ordered filaments of a femtosecond pulse in the volume of a transparent medium. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2006, 73, 778.	0.2	11
118	Array of femtosecond plasma channels in fused silica. Optics Communications, 2006, 267, 511-523.	1.0	39
119	Filamentation of a femtosecond laser pulse with the initial beam ellipticity. Laser Physics, 2006, 16, 1227-1234.	0.6	8
120	Controlling a bunch of multiple filaments by means of a beam diameter. Applied Physics B: Lasers and Optics, 2006, 82, 111-122.	1.1	41
121	Conical emission of a femtosecond laser pulse focused by an axicon into a K 108 glass. Quantum Electronics, 2006, 36, 821-824.	0.3	18
122	<title>Regularization of multiple filaments in atmospheric turbulence</title>. , 2006, 6255, 212.		0
123	Controlling the bunch of filaments formed by high-power femtosecond laser pulse in air. , 2005, , .		3
124	Towards a control of multiple filamentation by spatial regularization of a high-power femtosecond laser pulse. Applied Physics B: Lasers and Optics, 2005, 80, 267-275.	1.1	80
125	Effect of beam diameter on the propagation of intense femtosecond laser pulses. Applied Physics B: Lasers and Optics, 2005, 80, 35-38.	1.1	66
126	Self-action effects in ionization and fragmentation of toluene by femtosecond laser pulses. Applied Physics B: Lasers and Optics, 2005, 80, 547-557.	1.1	7

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127	Dynamic small-scale self-focusing of a femtosecond laser pulse. Quantum Electronics, 2005, 35, 59-64.	0.3	19
128	Enhanced fragmentation of toluene through linear and nonlinear increase of the focal spot area of an ultrashort laser pulse. Physical Review A, 2005, 71, .	1.0	7
129	The propagation of powerful femtosecond laser pulses in optical media: physics, applications, and new challenges. Canadian Journal of Physics, 2005, 83, 863-905.	0.4	551
130	Formation of extended plasma channels in a condensed medium upon axicon focusing of a femtosecond laser pulse. Quantum Electronics, 2005, 35, 1013-1014.	0.3	40
131	A method for spatial regularisation of a bunch of filaments in a femtosecond laser pulse. Quantum Electronics, 2004, 34, 879-880.	0.3	25
132	Competition of multiple filaments during the propagation of intense femtosecond laser pulses. Physical Review A, 2004, 70, .	1.0	134
133	Supercontinuum sources in a high-power femtosecond laser pulse propagating in liquids and gases. Quantum Electronics, 2004, 34, 348-354.	0.3	94
134	Experimental observation and simulations of the self-action of white light laser pulse propagating in air. New Journal of Physics, 2004, 6, 6-6.	1.2	52
135	Femtosecond laser pulse filamentation versus optical breakdown in H ₂ O. Applied Physics B: Lasers and Optics, 2003, 76, 215-229.	1.1	168
136	Self-transformation of a powerful femtosecond laser pulse into a white-light laser pulse in bulk optical media (or supercontinuum generation). Applied Physics B: Lasers and Optics, 2003, 77, 149-165.	1.1	302
137	Multiple refocusing of a femtosecond laser pulse in a dispersive liquid (methanol). Optics Communications, 2003, 225, 193-209.	1.0	91
138	Nonlinear-optical transformation of a high-power femtosecond laser pulse in air. Quantum Electronics, 2003, 33, 69-75.	0.3	71
139	Initial phase modulation of a high-power femtosecond laser pulse as a tool for controlling its filamentation and generation of a supercontinuum in air. Quantum Electronics, 2003, 33, 525-530.	0.3	63
140	Conversion of high-power femtosecond laser pulse to supercontinuum in atmospheric air. , 2003, 4976, 159.		1
141	Influence of various physical factors on the generation of conical emission in the propagation of high-power femtosecond laser pulses in air. Journal of Optical Technology (A Translation of) Tj ETQq1 1 0.784314 rgrBT /Overlook 10 Tj 5		
142	Random deflection of the white light beam during self-focusing and filamentation of a femtosecond laser pulse in water. Applied Physics B: Lasers and Optics, 2002, 75, 595-599.	1.1	32
143	Filamentation of femtosecond laser pulses in turbulent air. Applied Physics B: Lasers and Optics, 2002, 74, 67-76.	1.1	108
144	Interference of transverse rings in multifilamentation of powerful femtosecond laser pulses in air. Optics Communications, 2002, 210, 329-341.	1.0	81

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145	Nucleation and random movement of filaments in the propagation of high-power laser radiation in a turbulent atmosphere. Quantum Electronics, 1999, 29, 911-915.	0.3	58
146	FILAMENTATION AND SUPERCONTINUUM GENERATION DURING THE PROPAGATION OF POWERFUL ULTRASHORT LASER PULSES IN OPTICAL MEDIA (WHITE LIGHT LASER). Journal of Nonlinear Optical Physics and Materials, 1999, 08, 121-146.	1.1	130
147	Spatiotemporal instability of an intense subpicosecond laser pulse in gases. Quantum Electronics, 1997, 27, 441-444.	0.3	4
148	From Filamentation in Condensed Media to Filamentation in Gases. Journal of Nonlinear Optical Physics and Materials, 1997, 06, 485-494.	1.1	50
149	Moving focus in the propagation of ultrashort laser pulses in air. Optics Letters, 1997, 22, 304.	1.7	370
150	Conical emission from laser-plasma interactions in the filamentation of powerful ultrashort laser pulses in air. Optics Letters, 1997, 22, 1332.	1.7	231
151	<title>Scattering of the ultrashort ionizing laser pulse in gas</title>. , 1996, , .		0
152	Influence of transient self-defocusing on the propagation of high-power femtosecond laser pulses in gases under ionisation conditions. Quantum Electronics, 1994, 24, 905-911.	0.3	21