

Valeriy E Karasik

List of Publications by Year in descending order

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136
papers

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citations

361296

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136
all docs

136
docs citations

136
times ranked

912
citing authors

#	ARTICLE	IF	CITATIONS
1	The progress and perspectives of terahertz technology for diagnosis of neoplasms: a review. Journal of Optics (United Kingdom), 2020, 22, 013001.	1.0	135
2	<i>In vivo</i> terahertz spectroscopy of pigmentary skin nevi: Pilot study of non-invasive early diagnosis of dysplasia. Applied Physics Letters, 2015, 106, .	1.5	112
3	Terahertz spectroscopy of gelatin-embedded human brain gliomas of different grades: a road toward intraoperative THz diagnosis. Journal of Biomedical Optics, 2019, 24, 1.	1.4	75
4	Wide-aperture aspherical lens for high-resolution terahertz imaging. Review of Scientific Instruments, 2017, 88, 014703.	0.6	63
5	Terahertz and infrared photodetectors based on multiple graphene layer and nanoribbon structures. Opto-electronics Review, 2012, 20, .	2.4	53
6	Accuracy of sample material parameters reconstruction using terahertz pulsed spectroscopy. Journal of Applied Physics, 2014, 115, .	1.1	50
7	Terahertz Photonic Crystal Waveguides Based on Sapphire Shaped Crystals. IEEE Transactions on Terahertz Science and Technology, 2016, 6, 576-582.	2.0	49
8	Sapphire Photonic Crystal Waveguides for Terahertz Sensing in Aggressive Environments. Advanced Optical Materials, 2018, 6, 1800573.	3.6	48
9	Invariant embedding technique for medium permittivity profile reconstruction using terahertz time-domain spectroscopy. Optical Engineering, 2013, 52, 068203.	0.5	43
10	Ultra-short pulse generation in the hybridly mode-locked erbium-doped all-fiber ring laser with a distributed polarizer. Laser Physics Letters, 2015, 12, 065001.	0.6	34
11	A hybrid continuous-wave terahertz imaging system. Review of Scientific Instruments, 2015, 86, 113704.	0.6	33
12	Thermo-optical and lasing characteristics of Cr ²⁺ -doped CdSe single crystal as tunable coherent source in the mid-infrared. Optical Materials Express, 2017, 7, 3815.	1.6	29
13	Numerical analysis and experimental study of terahertz solid immersion microscopy. Optical Engineering, 2019, 59, 1.	0.5	28
14	High-energy, sub-100 fs, all-fiber stretched-pulse mode-locked Er-doped ring laser with a highly-nonlinear resonator. Optics Express, 2015, 23, 33295.	1.7	26
15	Note: Gaussian mixture model for event recognition in optical time-domain reflectometry based sensing systems. Review of Scientific Instruments, 2016, 87, 036107.	0.6	25
16	Medical diagnostics using terahertz pulsed spectroscopy. Journal of Physics: Conference Series, 2014, 486, 012014.	0.3	24
17	Fabrication of anti-reflective microstructures on chalcogenide crystals by femtosecond laser ablation. Optical Materials Express, 2019, 9, 1689.	1.6	23
18	The Role of Scattering in Quasi-Ordered Structures for Terahertz Imaging: Local Order Can Increase an Image Quality. IEEE Transactions on Terahertz Science and Technology, 2018, 8, 403-409.	2.0	21

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19	Negative terahertz conductivity and amplification of surface plasmons in graphene/black phosphorus injection laser heterostructures. <i>Physical Review B</i> , 2019, 100, .	1.1	21
20	Stable Similariton Generation in an All-Fiber Hybrid Mode-Locked Ring Laser for Frequency Metrology. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016, 63, 1028-1033.	1.7	20
21	Nondestructive testing of polymer composite materials using THz radiation. <i>Journal of Physics: Conference Series</i> , 2014, 486, 012008.	0.3	19
22	Electrical modulation of terahertz radiation using graphene-phosphorene heterostructures. <i>Semiconductor Science and Technology</i> , 2018, 33, 124010.	1.0	19
23	Experimental study of influence of nonlinear effects on phase-sensitive optical time-domain reflectometer operating range. <i>Journal of Physics: Conference Series</i> , 2015, 584, 012028.	0.3	17
24	Terahertz Microscope Based on Solid Immersion Effect for Imaging of Biological Tissues. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2019, 126, 560-567.	0.2	16
25	Fiber Optic Raman Distributed Temperature Sensor Based on an Ultrashort Pulse Mode-Locked Fiber Laser. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2019, 127, 664-668.	0.2	16
26	A potential of terahertz solid immersion microscopy for visualizing sub-wavelength-scale tissue spheroids. , 2018, , .		16
27	High-efficiency continuous-wave single-mode room-temperature operation of Cr: CdSe single-crystal laser with output power of 23 W. <i>Optics Express</i> , 2019, 27, 12090.	1.7	16
28	Mathematical analysis of marine pipeline leakage monitoring system based on coherent OTDR with improved sensor length and sampling frequency. <i>Journal of Physics: Conference Series</i> , 2015, 584, 012016.	0.3	15
29	A method of studying spectral optical characteristics of a homogeneous medium by means of terahertz time-domain spectroscopy. <i>Optics and Spectroscopy (English Translation of Optika I)</i> Tj ETQq1 1 0.7843 142gBT /Overlock 10		10
30	Continuous-wave broadly tunable diode laser array-pumped mid-infrared Cr ²⁺ :CdSe laser. <i>Laser Physics Letters</i> , 2015, 12, 125003.	0.6	14
31	BWO based THz imaging system. <i>Journal of Physics: Conference Series</i> , 2014, 486, 012027.	0.3	12
32	<i>In vivo</i> spectroscopy of healthy skin and pathology in terahertz frequency range. <i>Journal of Physics: Conference Series</i> , 2015, 584, 012023.	0.3	12
33	A device based on the Shack-Hartmann wave front sensor for testing wide aperture optics. <i>Proceedings of SPIE</i> , 2016, , .	0.8	10
34	Application of the methane saturated dispersion resonance near $\frac{1}{4}$ over the temperature range of 77–300 K for optical frequency standards. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016, 177, 241-247.	1.1	10
35	High-energy ultrashort-pulse all-fiber erbium-doped ring laser with improved free-running performance. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 2010.	0.9	10
36	Influence of the Laser Frequency Drift in Phase-Sensitive Optical Time Domain Reflectometry. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2019, 127, 656-663.	0.2	10

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37	Impact of structure geometry on scattering in partially-ordered media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 149, 108-116.	1.1	9
38	Comb Peculiarities of Dispersion-Managed Solitons in a Hybrid Mode-Locked All-Fiber Ring Laser. IEEE Photonics Technology Letters, 2017, 29, 1588-1591.	1.3	9
39	Comparison of Intersubband Quantum-Well and Interband Graphene-Layer Infrared Photodetectors. IEEE Journal of Quantum Electronics, 2018, 54, 1-8.	1.0	9
40	Structural monitoring system with fiber Bragg grating sensors: implementation and software solution. Journal of Physics: Conference Series, 2015, 594, 012049.	0.3	8
41	Hartmannometer versus Fizeau Interferometer: advantages and drawbacks. , 2015, , .		8
42	Combined terahertz imaging system for enhanced imaging quality. Optical and Quantum Electronics, 2016, 48, 1.	1.5	8
43	OTDR based on tunable Yb-Er:phosphate-glass laser. Journal of Physics: Conference Series, 2019, 1410, 012108.	0.3	8
44	Theoretical analysis of injection driven thermal light emitters based on graphene encapsulated by hexagonal boron nitride. Optical Materials Express, 2021, 11, 468.	1.6	8
45	Optical pumping in graphene-based terahertz/far-infrared superluminescent and laser heterostructures with graded-gap black-PxAs _{1-x} absorbing-cooling layers. Optical Engineering, 2019, 59, 1.	0.5	8
46	Concept of infrared photodetector based on graphene-graphene nanoribbon structure. Infrared Physics and Technology, 2013, 59, 137-141.	1.3	7
47	An approach for automatic construction of the wavelet-domain de-noising procedure for THz pulsed spectroscopy signal processing. Journal of Physics: Conference Series, 2014, 486, 012034.	0.3	7
48	Multibound Soliton Formation in an Erbium-Doped Ring Laser With a Highly Nonlinear Resonator. IEEE Photonics Technology Letters, 2020, 32, 43-46.	1.3	7
49	Tunable CW Solid-State Mid-IR Cr ²⁺ :CdSe Single Crystal Laser with Diode Laser Array Pumping. , 2015, , .		7
50	Wavelet-domain de-noising technique for THz pulsed spectroscopy. , 2014, , .		6
51	Generation of ultrashort pulses with minimum duration of 90 fs in a hybrid mode-locked erbium-doped all-fibre ring laser. Quantum Electronics, 2016, 46, 979-981.	0.3	6
52	In vitro terahertz spectroscopy of gelatin-embedded human brain tumors: a pilot study. , 2018, , .		6
53	Peculiarity of Terahertz Waves Scattering. International Journal of High Speed Electronics and Systems, 2015, 24, 1520002.	0.3	5
54	Scattering of terahertz radiation in thin layers of dielectric materials. Proceedings of SPIE, 2013, , .	0.8	4

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55	Scattering in structured two-layered medium. Journal of Physics: Conference Series, 2015, 584, 012019.	0.3	4
56	High-power passively mode-locked thulium-doped all-fiber ring laser with nonlinearity and dispersion management. , 2018, , .		4
57	Negative Terahertz Conductivity at Vertical Carrier Injection in a Black-Arsenic-Phosphorusâ€“Graphene Heterostructure Integrated With a Light-Emitting Diode. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	1.9	4
58	Differentiation of basal cell carcinoma and healthy skin using multispectral modulation autofluorescence imaging: A pilot study. Journal of Biomedical Photonics and Engineering, 2019, 5, 010302.	0.4	4
59	High-spatial-resolution Distributed Temperature Sensing System Based on a Mode-locked Fiber Laser. , 2020, , .		4
60	A Comparison of Terahertz Pulsed Spectroscopy and Backward-Wave Oscillator Spectroscopy. Journal of Physics: Conference Series, 2014, 536, 012009.	0.3	3
61	The absolute calibration of high-precision optical flats across a wide range of spatial frequencies. Journal of Physics: Conference Series, 2015, 584, 012020.	0.3	3
62	Thin film thickness measurement error reduction by wavelength selection in spectrophotometry. Journal of Physics: Conference Series, 2015, 584, 012011.	0.3	3
63	Numerical simulation of terahertz-wave propagation in photonic crystal waveguide based on sapphire shaped crystal. Journal of Physics: Conference Series, 2016, 673, 012001.	0.3	3
64	Infrared detection and photon energy up-conversion in graphene layer infrared photodetectors integrated with LEDs based on van der Waals heterostructures: Concept, device model, and characteristics. Infrared Physics and Technology, 2017, 85, 307-314.	1.3	3
65	Device model for pixelless infrared image up-converters based on polycrystalline graphene heterostructures. Journal of Applied Physics, 2018, 123, 014503.	1.1	3
66	Multiple graphene-layer-based heterostructures with van der Waals barrier layers for terahertz superluminescent and laser diodes with lateral/vertical current injection. Semiconductor Science and Technology, 2020, 35, 085023.	1.0	3
67	Properties of Scalable Chirped-Pulse Optical Comb in Erbium-Doped Ultrafast All-Fiber Ring Laser. Fibers, 2021, 9, 36.	1.8	3
68	Demonstration of Two Generation Regimes in High Power Passively Mode-locked Thulium-doped All-fiber Ring Laser at Fully Negative Intracavity Dispersion. , 2018, , .		3
69	An unequal-arm Twyman-Green IR interferometer for monitoring the shape and quality of the surfaces of large optical items at the grinding stage. Journal of Optical Technology (A Translation of) Tj ETQq1 1 0.784314 rgrBT /Overlock 10 T 5	0.784314	3
70	Terahertz waveguides based on multichannel sapphire shaped crystals. , 2016, , .		2
71	Multipurpose monitoring system for icebreakers: Development, implementation, and testing. MATEC Web of Conferences, 2016, 75, 04005.	0.1	2
72	Er:Yb phosphate glass laser with nonlinear absorber for phase-sensitive optical time domain reflectometry. Journal of Physics: Conference Series, 2017, 917, 052032.	0.3	2

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73	Method for Certification Monitoring of Surface Inhomogeneities of Optics Based on Frequency Analysis of the Surface Profile. <i>Measurement Techniques</i> , 2017, 60, 121-127.	0.2	2
74	Phase-sensitive optical time-domain reflectometry with pulse mode EDFA: Probe pulse preparation. , 2017, , .		2
75	Theoretical aspects of a pulse repetition rate stabilization in the Er-doped all-fiber hybridly mode-locked similariton-like ring laser. , 2017, , .		2
76	Ultrashort Multi-Bound Solitons Generation in the Passively Mode-Locked All-Fiber Laser at the Telecom Window. , 2018, , .		2
77	Concepts of infrared and terahertz photodetectors based on vertical graphene van der Waals and HgTe-CdHgTe heterostructures. <i>Opto-electronics Review</i> , 2019, 27, 219-223.	2.4	2
78	An Experimentally Trained Noise Filtration Method of Optical Coherence Tomography Signals. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2019, 126, 587-594.	0.2	2
79	Multibound solitons generation with a controllable number of bound states in a passive mode-locked all-fiber erbium-doped ring laser. , 2019, , .		2
80	Study of Methane Saturated Dispersion Resonances Amplitude near 2.36 μ m over the Temperature Range 77-300 K. , 2015, , .		2
81	Experimental estimation of the quality of a laser beam. <i>Measurement Techniques</i> , 2009, 52, 260-265.	0.2	1
82	Dispersion-managed soliton generation in the hybrid mode-locked erbium-doped all-fiber ring laser. , 2016, , .		1
83	Diode array-pumped mid-infrared cw Cr ²⁺ :CdSe laser. <i>Journal of Physics: Conference Series</i> , 2016, 673, 012015.	0.3	1
84	Fiber Bragg gratings strain measuring system and a sensor calibration setup based on mechanical nanomotion transducer. <i>Proceedings of SPIE</i> , 2017, , .	0.8	1
85	Laser performance of Cr ²⁺ :CdSe crystal with anti-reflection coating. , 2017, , .		1
86	Hybrid mode-locked erbium-doped all-fiber ring laser with high-density well-aligned single-walled carbon nanotubes. , 2017, , .		1
87	Ultrafast all-fiber erbium-doped ring laser mode-locked by high-density well-aligned single-walled carbon nanotubes. , 2017, , .		1
88	Biomedical applications of terahertz solid immersion microscopy. <i>EPJ Web of Conferences</i> , 2018, 195, 10017.	0.1	1
89	Sub-wavelength-resolution imaging of biological tissues using THz solid immersion microscopy. , 2018, , .		1
90	Controllable Generation of Ultrashort Multi-Bound Solitons in a Mode-Locked Erbium-Doped Ring Laser with a Highly-Nonlinear Resonator. , 2019, , .		1

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91	Characteristics of vertically stacked graphene-layer infrared photodetectors. Solid-State Electronics, 2019, 155, 123-128.	0.8	1
92	High Power Multi-soliton and Noise-like Pulse Generation Regimes in a Passively Mode-locked Thulium-doped All-fiber Ring Oscillator. , 2019, , .		1
93	Stretched-pulse Kerr Mode-locked Generation in Erbium-doped Ring Laser with Highly Nonlinear All-fiber Resonator. , 2015, , .		1
94	Fabrication of Anti-reflection Microstructures on ZnSe Single Crystal by Using Femtosecond Laser Pulses. , 2017, , .		1
95	Mode-locking peculiarities in an all-fiber erbium-doped ring ultrashort pulse laser with a highly-nonlinear resonator. , 2017, , .		1
96	Fabrication of broadband antireflection microstructures on ZnSe single crystal for mid-IR applications. , 2018, , .		1
97	Low-saturation-energy Ultrafast Saturable Absorption of High-density Well-aligned Single-walled Carbon Nanotubes. , 2019, , .		1
98	Fiber optic Raman distributed temperature sensor based on an ultrashort pulse mode-locked fiber laser. , 2019, , .		1
99	Propagation Features of Multibound Solitons in Optical Fiber With Anomalous Dispersion in the Telecom Range. , 2020, , .		1
100	Precision method of monitoring the parameters of the local nanometer-level deviations of an optical component's surface. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2018, 85, 166.	0.2	1
101	All-fiber 1.9 Åµm ultrafast amplifier based on normal dispersion thulium-doped fiber and large mode area silica fiber compressor. , 2020, , .		1
102	A Distributed Acoustic Sensor Based on Dual-Sagnac Interferometer with Counter Loops. , 2021, , .		1
103	Summer school in Kabardino-Balkaria by BMSTU SPIE Student Chapter. Proceedings of SPIE, 2014, , .	0.8	0
104	2nd Russiaâ€“Japanâ€“USA Symposium on the Fundamental and Applied Problems of Terahertz Devices and Technologies (RJUS TeraTech â€“ 2013). Journal of Physics: Conference Series, 2014, 486, 011001.	0.3	0
105	High-order modes supercontinuum generation in a large-core photonic crystal fiber. , 2015, , .		0
106	Note: Improved technique for ultrashort lasers pulse width stabilization. Review of Scientific Instruments, 2015, 86, 076108.	0.6	0
107	Improved technique for picosecond pulse duration measurement based on second harmonic generation. Journal of Physics: Conference Series, 2015, 584, 012007.	0.3	0
108	Experimental Analysis of Instrumental Uncertainty in the Measurement Channel of an Optoelectronic System for Monitoring Surfaces of Complex Shape. Measurement Techniques, 2015, 57, 1371-1377.	0.2	0

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109	Stable similariton generation in hybrid mode-locked erbium-doped all-fiber ring laser for application in optical frequency standard. , 2015, , .		0
110	Numerical simulations of radiation transfer in partially-ordered stratified media using Monte Carlo methods. Journal of Physics: Conference Series, 2016, 672, 012001.	0.3	0
111	Adaptation of the Er-Yb microchip laser for use in phase-sensitive optical time domain reflectometry. , 2016, , .		0
112	All-fiber hybridly mode-locked similariton ring laser for frequency metrology. , 2016, , .		0
113	Stability peculiarities in the stretch pulse hybrid mode-locked erbium-doped all-fiber ring laser. , 2016, , .		0
114	All-fiber ultra-short pulse hybrid mode-locked laser with high power amplifier. , 2016, , .		0
115	Radiation scattering on growing ordered structures. Journal of Physics: Conference Series, 2016, 673, 012011.	0.3	0
116	Optical comb characterization of an all-fiber mode-locked erbium-doped ring laser with a highly-nonlinear resonator. , 2017, , .		0
117	Intraoperative diagnosis of malignant brain gliomas using terahertz pulsed spectroscopy and optical coherence tomography. EPJ Web of Conferences, 2018, 195, 10018.	0.1	0
118	Tunable Discrete-Cavity Solid-State Laser For Phase-Sensitive OTDR. , 2018, , .		0
119	Low-noise Multi-bound Solitons Generation in a Highly-nonlinear All-fiber Resonator. , 2018, , .		0
120	Pump-Induced Frequency Jitter Study in Hybridly Mode-locked All-fiber Similariton-like Erbium Fiber Laser. , 2018, , .		0
121	In vitro terahertz spectroscopy of malignant brain gliomas embedded in gelatin slab. , 2018, , .		0
122	High-density Well-aligned Single-walled Carbon Nanotubes Saturable Absorber: Novel Approach of Robust Mode-locking Launching. , 2018, , .		0
123	Octave-Spanning High-Repetition-Rate Mid-IR Supercontinuum for Frequency Comb Synthesis. , 2019, , .		0
124	Dynamics of High Peak Power Pulses near $1.9 \mu\text{m}$ in a Standard Single-mode Telecom Fiber. , 2019, , .		0
125	Improved Method of Pulse Width Stabilization for Picosecond Mode-locked Yb-doped Fiber Laser. , 2015, , .		0
126	Enhanced high-harmonic generation in photonics crystal: theoretical and experimental studies. , 2017, , .		0

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127	Highly efficient continuous wave single mode Cr: CdSe laser with output power more than 2 W. , 2018, , .		0
128	Impact of Scattering in Quasi-Ordered Structures on THz Imaging. EPJ Web of Conferences, 2018, 195, 08001.	0.1	0
129	Cr: ZnSe laser generation in two longitudinal modes regime with intracavity monoblock Fabry-Perot interferometer for methane saturation spectroscopy. , 2018, , .		0
130	Broadband tunable mid-IR Cr ²⁺ : CdSe lasers for medical applications. , 2018, , .		0
131	All-fiber mode-locked erbium-doped ring laser based on a highly-nonlinear resonator with a low-noise ultrashort pulse generation. , 2018, , .		0
132	Anti-reflection microstructures for 2-6 μm range fabricated with direct fs laser ablation. , 2019, , .		0
133	Chirped-pulse erbium-doped all-fiber ultrashort pulse laser for a fiber optic Raman distributed temperature sensor. , 2019, , .		0
134	Operating speed measurement of photodetector based on GaSb/GaInAsSb/GaAlAsSb heterostructure with frontal bridge contact for detecting ultrashort pulses at wavelengths of 1.55 and 1.9 μm. , 2019, , .		0
135	Simulation of ultrashort pulse generation in an all-fiber erbium-doped ring laser with a highly nonlinear cavity. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2020, 87, 175.	0.2	0
136	Optical Comb Peculiarities of High-energy Chirped-pulse Erbium-doped All-fiber Ring Laser. , 2020, , .		0