Elena Cherepetskaya

List of Publications by Year
in descending order

35	288	933447 10	940533 16
papers	citations	h-index	g-index

35	35	35	224
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Progress in Photoacoustic and Laser Ultrasonic Tomographic Imaging for Biomedicine and Industry: A Review. Applied Sciences (Switzerland), 2018, 8, 1931.	2.5	38
2	Emission of terahertz pulses from vanadium dioxide films undergoing metalâ€“insulator phase transition. Optica, 2015, 2, 790.	9.3	22
3	On the use of an optoacoustic and laser ultrasonic imaging system for assessing peripheral intravenous access. Photoacoustics, 2017, 5, 10-16.	7.8	21
4	Laser optoacoustic diagnostics of femtosecond filaments in air using wideband piezoelectric transducers. Laser Physics Letters, 2016, 13, 095401.	1.4	20
5	Measuring the dependence of the local Youngâ€™s modulus on the porosity of isotropic composite materials by a pulsed acoustic method using a laser source of ultrasound. Journal of Applied Mechanics and Technical Physics, 2013, 54, 500-507.	0.5	19
6	Second harmonic generation in isotropic chiral medium with nonlocality of nonlinear optical response by heterogeneously polarized pulsed beams. Optics Express, 2017, 25, 6253.	3.4	18
7	Laser optoacoustic method for quantitative nondestructive evaluation of the subsurface damage depth in ground silicon wafers. Laser Physics, 2014, 24, 086003.	1.2	17
8	Laser optoacoustic tomography for the study of femtosecond laser filaments in air. Laser Physics Letters, 2016, 13, 085401.	1.4	16
9	Determination of uniaxial stresses in steel structures by the laser-ultrasonic method. Journal of Applied Mechanics and Technical Physics, 2017, 58, 503-510.	0.5	12
10	Two-dimensional photoacoustic imaging of femtosecond filament in water. Laser Physics Letters, 2018, 15, 075403.	1.4	10
11	Ultrasonic laser spectroscopy of mechanic-acoustic nonlinearity of cracked rocks. Journal of Applied Mechanics and Technical Physics, 2005, 46, 452-457.	0.5	9
12	Ultrashort elliptically polarized laser pulse interaction with helical photonic metamaterial. Optical Materials Express, 2014, 4, 2090.	3.0	9
13	Transfer efficiency of angular momentum in sum-frequency generation and control of its spin and orbital parts by varying polarization and frequency of fundamental beams. Laser Physics Letters, 2017, 14, 085401.	1.4	8
14	Laser-induced ultrasonic imaging for measurements of solid surfaces in optically opaque liquids [Invited]. Applied Optics, 2018, 57, C70.	1.8	7
15	Improvement of Image Spatial Resolution in Optoacoustic Tomography with the Use of a Confocal Array. Acoustical Physics, 2018, 64, 77-82.	1.0	7
16	Qualitative Estimation of Mineral Grain Sizes by Ultrasonic Laser Spectroscopy. Journal of Mining Science, 2003, 39, 419-424.	0.6	6
17	Toroidally focused sensor array for real-time laser-ultrasonic imaging: The first experimental study. Photoacoustics, 2020, 17, 100160.	7.8	6
18	A comprehensive approach to the characterization of the deposited energy density during laserâ€“matter interactions in liquids and solids. Measurement Science and Technology, 2020, 31, 085204.	2.6	6

#	Article	IF	Citations
19	Model-based measurement of internal geometry of solid parts with sub-PSF accuracy using laser-ultrasonic imaging. NDT and E International, 2019, 105, 56-63.	3.7	5
20	Thermal Infrared Radiation and Laser Ultrasound for Deformation and Water Saturation Effects Testing in Limestone. Remote Sensing, 2020, 12, 4036.	4.0	5
21	Structure of polarization singularities of a light beam at triple frequency generated in isotropic medium by singularly polarized beam. Optics Express, 2017, 25, 25416.	3.4	4
22	Photoacoustic and optical imaging of the femtosecond filament in water. , 2019, , .		4
23	Nonlinear reflection of a nanosecond laser pulse from thin aluminum film in the temperature range 2â€“14 kK. Laser Physics Letters, 2015, 12, 115403.	1.4	3
24	Semi-analytical modelling of the forward and inverse problems in photoacoustic tomography of a femtosecond laser filament in water accounting for refraction and acoustic attenuation. Journal of Physics: Conference Series, 2018, 1141, 012060.	0.4	3
25	Ultrasonic echo sounding by thermal optical sources of longitudal waves. Journal of Mining Science, 2004, 40, 231-235.	0.6	2
26	Laser-ultrasonic imaging for evaluation of temperature fields in paratellurite optical crystal. Proceedings of Meetings on Acoustics, 2017, , .	0.3	2
27	A method of laser ultrasound tomography for solid surfaces mapping. MATEC Web of Conferences, 2018, 145, 05009.	0.2	2
28	Three-dimensional hybrid optoacoustic imaging of the laser-induced plasma and deposited energy density under optical breakdown in water. Applied Physics Letters, 2021, 118, .	3.3	2
29	Analysis of structure and elastic properties of geomaterials using contact broadband ultrasonic structural spectroscopy. Gornyi Zhurnal, 2017, , 29-32.	0.1	2
30	Theoretical Estimate for the Parameters of Ultrasonic Impulses Excited in Geomaterials by Laser Emission. Journal of Mining Science, 2003, 39, 323-330.	0.6	1
31	Thermal nonlinearity effect used in laser excitation of ultrasonic signals in geomaterials. Journal of Applied Mechanics and Technical Physics, 2005, 46, 299-305.	0.5	1
32	Real-Time Laser Ultrasound Tomography for Profilometry of Solids. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2018, 73, 75-82.	0.4	1
33	Experimental study of the critical point region of aluminum under the action of the powerful nanosecond laser pulse. Laser Physics Letters, 2015, 12, 125401.	1.4	0
34	Broadband immersion laser ultrasonic tomography of graphite-epoxy composite. , 2019, , .		0
35	Photoacoustic energy conversion efficiency under femtosecond filamentation in water: dependence on temperature and filamentation regime.. , 2020, , .		0