Zhijiang Chen

List of Publications by Year
in descending order

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57 papers	1,245 citations	430754 18 h-index	377752 34 g-index
57 all docs	57 docs citations	57 times ranked	1464 citing authors

#	Article	IF	Citations
1	Heterogeneous to homogeneous melting transition visualized with ultrafast electron diffraction. Science, 2018, 360, 1451-1455.	6.0	133
2	Fast and sensitive trace metal analysis in aqueous solutions by laser-induced breakdown spectroscopy using wood slice substrates. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 64-68.	1.5	123
3	Matter under extreme conditions experiments at the Linac Coherent Light Source. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 092001.	0.6	107
4	Evolution of ac Conductivity in Nonequilibrium Warm Dense Gold. Physical Review Letters, 2013, 110, 135001.	2.9	84
5	Generation and characterization of ultrathin free-flowing liquid sheets. Nature Communications, 2018, 9, 1353.	5.8	68
6	Ultra-sensitive trace metal analysis of water by laser-induced breakdown spectroscopy after electrical-deposition of the analytes on an aluminium surface. Journal of Analytical Atomic Spectrometry, 2008, 23, 871.	1.6	60
7	Ab initiomodel of optical properties of two-temperature warm dense matter. Physical Review B, 2014, 90, .	1.1	59
8	Direct observation of ultrafast hydrogen bond strengthening in liquid water. Nature, 2021, 596, 531-535.	13.7	53
9	Sensitive detection of metals in water using laser-induced breakdown spectroscopy on wood sample substrates. Applied Optics, 2010, 49, C87.	2.1	41
10	Permanent fine tuning of silicon microring devices by femtosecond laser surface amorphization and ablation. Optics Express, 2013, 21, 11048.	1.7	36
11	Flux-Limited Nonequilibrium Electron Energy Transport in Warm Dense Gold. Physical Review Letters, 2012, 108, 165001.	2.9	31
12	Quantitative analysis of impurities in aluminum alloys by laser-induced breakdown spectroscopy without internal calibration. Transactions of Nonferrous Metals Society of China, 2008, 18, 222-226.	1.7	26
13	Laser wakefield generated X-ray probe for femtosecond time-resolved measurements of ionization states of warm dense aluminum. Review of Scientific Instruments, 2013, 84, 123106.	0.6	24
14	Measurements of ionization states in warm dense aluminum with betatron radiation. Physical Review E, 2017, 95, 053208.	0.8	24
15	Towards Inductive Learning of Complex Fuzzy Inference Systems. , 2007, , .		22
16	Interatomic Potential in the Nonequilibrium Warm Dense Matter Regime. Physical Review Letters, 2018, 121, 075002.	2.9	21
17	dc conductivity of two-temperature warm dense gold. Physical Review E, 2016, 94, 033213.	0.8	20
18	Ultrafast multi-cycle terahertz measurements of the electrical conductivity in strongly excited solids. Nature Communications, 2021, 12, 1638.	5.8	20

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19	Visualization of ultrafast melting initiated from radiation-driven defects in solids. Science Advances, 2019, 5, eaaw0392.	4.7	19
20	High resolution scanning microanalysis on material surfaces using UV femtosecond laser induced breakdown spectroscopy. Optics and Lasers in Engineering, 2015, 68, 1-6.	2.0	18
21	Single-shot mega-electronvolt ultrafast electron diffraction for structure dynamic studies of warm dense matter. Review of Scientific Instruments, 2016, 87, 11D810.	0.6	17
22	Sub-micron thick liquid sheets produced by isotropically etched glass nozzles. Lab on A Chip, 2022, 22, 1365-1373.	3.1	16
23	Femtosecond laser tuning of silicon microring resonators. Optics Letters, 2011, 36, 4695.	1.7	15
24	Detection of buried layers in silicon devices using LIBS during hole drilling with femtosecond laser pulses. Applied Physics A: Materials Science and Processing, 2013, 111, 791-798.	1.1	15
25	Dynamics of Electronâ€“Phonon Coupling in Bicontinuous Nanoporous Gold. Journal of Physical Chemistry C, 2018, 122, 16368-16373.	1.5	15
26	Structure retrieval in liquid-phase electron scattering. Physical Chemistry Chemical Physics, 2021, 23, 1308-1316.	1.3	13
27	New experimental platform to study high density laser-compressed matter. Review of Scientific Instruments, 2014, 85, 11E616.	0.6	12
28	High resolution x-ray Thomson scattering measurements from cryogenic hydrogen jets using the linac coherent light source. Review of Scientific Instruments, 2016, 87, 11E524.	0.6	12
29	Characterization of defect clusters in ion-irradiated tungsten by X-Ray diffuse scattering. Journal of Nuclear Materials, 2018, 510, 322-330.	1.3	12
30	Ultrafast visualization of phase transitions in nonequilibrium warm dense matter. MRS Bulletin, 2021, 46, 694-703.	1.7	11
31	Toward quasi-DC conductivity of warm dense matter measured by single-shot terahertz spectroscopy. Review of Scientific Instruments, 2018, 89, 10D109.	0.6	10
32	Hydrodynamic simulations of disrupted planetary accretion discs inside the core of an AGB star. Monthly Notices of the Royal Astronomical Society, 2019, 490, 1179-1185.	1.6	10
33	Postfabrication Phase Error Correction of Silicon Photonic Circuits by Single Femtosecond Laser Pulses. Journal of Lightwave Technology, 2017, 35, 588-595.	2.7	9
34	Electron-Ion Temperature Relaxation in Warm Dense Hydrogen Observed With Picosecond Resolved X-Ray Scattering. Frontiers in Physics, 2022, 10, .	1.0	9
35	Femtosecond laser plasma plume characteristics in the nanojoule ablation regime. Journal of Applied Physics, 2013, 113, .	1.1	8
36	Determination of the electron-lattice coupling strength of copper with ultrafast MeV electron diffraction. Review of Scientific Instruments, 2018, 89, 10C108.	0.6	8

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37	Self-referenced single-shot THz detection. Optics Express, 2017, 25, 16140.	1.7	7
38	Electron Kinetics Induced by Ultrafast Photoexcitation of Warm Dense Matter in a 30-nm-Thick Foil. Physical Review Letters, 2021, 127, 097403.	2.9	7
39	Ultrafast visualization of incipient plasticity in dynamically compressed matter. Nature Communications, 2022, 13, 1055.	5.8	7
40	Fabrication and characterization of freestanding ultrathin diamond-like carbon targets for high-intensity laser applications. Applied Physics B: Lasers and Optics, 2013, 113, 429-436.	1.1	6
41	Threshold for permanent refractive index change in crystalline silicon by femtosecond laser irradiation. Applied Physics Letters, 2016, 109, .	1.5	6
42	Observation of a highly conductive warm dense state of water with ultrafast pumpâ€“probe free-electron-laser measurements. Matter and Radiation at Extremes, 2021, 6, .	1.5	6
43	Permanent Phase Correction in a Polarization Diversity Si PIC by Femtosecond Laser Pulses. IEEE Photonics Technology Letters, 2015, 27, 1880-1883.	1.3	5
44	Laser Nanopatterning. , 2012, , 301-319.		4
45	XUV-driven plasma switch for THz: new spatio-temporal overlap tool for XUVâ€“THz pumpâ€“probe experiments at FELs. Journal of Synchrotron Radiation, 2020, 27, 11-16.	1.0	4
46	Towards performing high-resolution inelastic X-ray scattering measurements at hard X-ray free-electron lasers coupled with energetic laser drivers. Journal of Synchrotron Radiation, 2022, 29, .	1.0	3
47	Super-Coulombic Energy Transfer: Engineering Dipole-Dipole Interactions with Metamaterials. , 2015, , .		2
48	Fast attenuation of high-frequency acoustic waves in bicontinuous nanoporous gold. Applied Physics Letters, 2021, 119, .	1.5	2
49	Permanent tuning of high-Q silicon microring resonators by Fs laser surface modification. , 2013, , .		1
50	Permanent, post-fabrication trimming of polarization diversity silicon circuits by single fs laser pulses. , 2014, , .		1
51	A single-shot spatial chirp method for measuring initial AC conductivity evolution of femtosecond laser pulse excited warm dense matter. Review of Scientific Instruments, 2016, 87, 11E548.	0.6	1
52	Post-fabrication Trimming of Silicon Photonic Circuits by Femtosecond Laser Pulses. , 2016, , .		1
53	Investigation of hard x-ray emissions from terawatt laser-irradiated foils at the Matter in Extreme Conditions instrument of the Linac Coherent Light Source. Journal of Instrumentation, 2022, 17, T04004.	0.5	1
54	Femtosecond laser tuning of Si microring resonators by surface amorphization through a thick SiO2 cladding. , 2014, , .		0

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55	Sensitive Detection of Heavy Metals in Water Using Microchip Laser Induced Breakdown Spectroscopy. , 2010, , .		0
56	Very fine refractive index tuning of silicon by single femtosecond laser pulses below melting threshold. , 2017, , .		0
57	Generation of ultrathin free-flowing liquid sheets for FEL sample delivery. , 2019, , .		0