

Th Tschentscher

List of Publications by Year in descending order

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48
papers

4,121
citations

201674

27
h-index

189892

50
g-index

51
all docs

51
docs citations

51
times ranked

4147
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>In situ</i> x-ray diffraction study of dynamically compressed In_2O_3 -crystalite using a dynamic diamond anvil cell. <i>Physical Review B</i> , 2022, 105, .	3.2	4
2	The High Energy Density Scientific Instrument at the European XFEL. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 1393-1416.	2.4	33
3	High-resolution inelastic x-ray scattering at the high energy density scientific instrument at the European X-Ray Free-Electron Laser. <i>Review of Scientific Instruments</i> , 2021, 92, 013101.	1.3	15
4	A MHz-repetition-rate hard X-ray free-electron laser driven by a superconducting linear accelerator. <i>Nature Photonics</i> , 2020, 14, 391-397.	31.4	315
5	Evidence of shock-compressed stishovite above 300 GPa. <i>Scientific Reports</i> , 2020, 10, 10197.	3.3	8
6	Phase transition lowering in dynamically compressed silicon. <i>Nature Physics</i> , 2019, 15, 89-94.	16.7	70
7	Setup for meV-resolution inelastic X-ray scattering measurements and X-ray diffraction at the Matter in Extreme Conditions endstation at the Linac Coherent Light Source. <i>Review of Scientific Instruments</i> , 2018, 89, 10F104.	1.3	25
8	EUCALL Annual Meeting 2017. <i>Synchrotron Radiation News</i> , 2017, 30, 6-8.	0.8	1
9	Targets for high repetition rate laser facilities: needs, challenges and perspectives. <i>High Power Laser Science and Engineering</i> , 2017, 5, .	4.6	106
10	Femtosecond laser-generated high-energy-density states studied by x-ray FELs. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 014028.	2.1	17
11	Photon Beam Transport and Scientific Instruments at the European XFEL. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 592.	2.5	232
12	Fluence thresholds for grazing incidence hard x-ray mirrors. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	41
13	Studying planetary matter using intense x-ray pulses. <i>Plasma Physics and Controlled Fusion</i> , 2015, 57, 014003.	2.1	6
14	Ultrafast electron kinetics in short pulse laser-driven dense hydrogen. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 224004.	1.5	6
15	A hard x-ray split-and-delay unit for the HED experiment at the European XFEL. <i>Proceedings of SPIE</i> , 2014, , .	0.8	3
16	Time-dependent wave front propagation simulation of a hard x-ray split-and-delay unit: Towards a measurement of the temporal coherence properties of x-ray free electron lasers. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2014, 17, .	1.8	20
17	Equilibration dynamics and conductivity of warm dense hydrogen. <i>Physical Review E</i> , 2014, 90, 013104.	2.1	22
18	Resolving Ultrafast Heating of Dense Cryogenic Hydrogen. <i>Physical Review Letters</i> , 2014, 112, 105002.	7.8	95

#	ARTICLE	IF	CITATIONS
19	AMO science at the FLASH and European XFEL free-electron laser facilities. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 164002.	1.5	90
20	Ultrafast time dynamics studies of periodic lattices with free electron laser radiation. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	5
21	XUV spectroscopic characterization of warm dense aluminum plasmas generated by the free-electron-laser FLASH. <i>Laser and Particle Beams</i> , 2012, 30, 45-56.	1.0	36
22	Angle-Resolved Electron Spectroscopy of Laser-Assisted Auger Decay Induced by a Few-Femtosecond X-Ray Pulse. <i>Physical Review Letters</i> , 2012, 108, 063007.	7.8	46
23	Ultrafast X-ray pulse characterization at free-electron lasers. <i>Nature Photonics</i> , 2012, 6, 852-857.	31.4	189
24	Testing quantum mechanics in non-Minkowski space-time with high power lasers and 4th generation light sources. <i>Scientific Reports</i> , 2012, 2, 491.	3.3	8
25	Two-color Thomson scattering at FLASH. <i>High Energy Density Physics</i> , 2011, 7, 145-149.	1.5	14
26	Femtosecond x-ray pulse length characterization at the Linac Coherent Light Source free-electron laser. <i>New Journal of Physics</i> , 2011, 13, 093024.	2.9	99
27	Decay of Crystalline Order and Equilibration during the Solid-to-Plasma Transition Induced by 20-fs Microfocused 92-eV Free-Electron-Laser Pulses. <i>Physical Review Letters</i> , 2011, 106, 164801.	7.8	37
28	A compact soft X-ray spectrograph combining high efficiency and resolution. <i>Journal of Instrumentation</i> , 2010, 5, P02004-P02004.	1.2	24
29	Soft X-ray scattering using FEL radiation for probing near-solid density plasmas at few electron volt temperatures. <i>High Energy Density Physics</i> , 2010, 6, 15-20.	1.5	23
30	Diffraction Properties of Periodic Lattices under Free Electron Laser Radiation. <i>Physical Review Letters</i> , 2010, 104, 125503.	7.8	12
31	Observation of Ultrafast Nonequilibrium Collective Dynamics in Warm Dense Hydrogen. <i>Physical Review Letters</i> , 2010, 104, 125002.	7.8	101
32	Probing near-solid density plasmas using soft x-ray scattering. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2010, 43, 194017.	1.5	20
33	Thomson scattering on inhomogeneous targets. <i>Physical Review E</i> , 2010, 82, 056404.	2.1	27
34	Thomson scattering in dense plasmas with density and temperature gradients. <i>High Energy Density Physics</i> , 2009, 5, 208-211.	1.5	17
35	Soft x-ray free electron laser microfocus for exploring matter under extreme conditions. <i>Optics Express</i> , 2009, 17, 18271.	3.4	44
36	Gas detectors for x-ray lasers. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	147

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37	X-Ray Diffuse Scattering Measurements of Nucleation Dynamics at Femtosecond Resolution. Physical Review Letters, 2008, 100, 135502.	7.8	58
38	Subnanometer-Scale Measurements of the Interaction of Ultrafast Soft X-Ray Free-Electron-Laser Pulses with Matter. Physical Review Letters, 2007, 98, 145502.	7.8	71
39	Ultrafast Bond Softening in Bismuth: Mapping a Solid's Interatomic Potential with X-rays. Science, 2007, 315, 633-636.	12.6	341
40	Thomson scattering from near-solid density plasmas using soft X-ray free electron lasers. High Energy Density Physics, 2007, 3, 120-130.	1.5	61
41	Femtosecond diffractive imaging with a soft-X-ray free-electron laser. Nature Physics, 2006, 2, 839-843.	16.7	910
42	Investigations of ultrafast phenomena in high-energy density physics using X-ray FEL radiation. European Physical Journal D, 2005, 36, 193-197.	1.3	8
43	Clocking Femtosecond X Rays. Physical Review Letters, 2005, 94, 114801.	7.8	230
44	Atomic-Scale Visualization of Inertial Dynamics. Science, 2005, 308, 392-395.	12.6	324
45	Cross-section ratio of double to single ionization of helium by Compton scattering of 40-100-keV x rays. Physical Review A, 1999, 59, 371-379.	2.5	38
46	Experiments with Very High Energy Synchrotron Radiation. Journal of Synchrotron Radiation, 1998, 5, 286-292.	2.4	36
47	Double and Single Ionization of Helium by 58-keV X Rays. Physical Review Letters, 1996, 76, 4685-4688.	7.8	48
48	High energy scattering beamlines at European Synchrotron Radiation Facility. Review of Scientific Instruments, 1995, 66, 1798-1801.	1.3	36