Justin S Wark

List of Publications by Year
in descending order

198	9,056	34016 52	45213 90
papers	citations	h-index	g-index

202	202	202	5196
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Creation and diagnosis of a solid-density plasma with an X-ray free-electron laser. Nature, 2012, 482, 59-62.	13.7	400
2	Time-Resolved X-Ray Diffraction from Coherent Phonons during a Laser-Induced Phase Transition. Physical Review Letters, 2000, 84, 111-114.	2.9	345
3	Atomic-Scale Visualization of Inertial Dynamics. Science, 2005, 308, 392-395.	6.0	324
4	Efficient Extreme UV Harmonics Generated from Picosecond Laser Pulse Interactions with Solid Targets. Physical Review Letters, 1996, 76, 1832-1835.	2.9	302
5	Direct Observation of theÎ±â^'ÎµTransition in Shock-Compressed Iron via Nanosecond X-Ray Diffraction. Physical Review Letters, 2005, 95, 075502.	2.9	270
6	Ultrafast Three-Dimensional Imaging of Lattice Dynamics in Individual Gold Nanocrystals. Science, 2013, 341, 56-59.	6.0	264
7	Direct Measurements of the Ionization Potential Depression in a Dense Plasma. Physical Review Letters, 2012, 109, 065002.	2.9	245
8	Photonuclear Physics when a Multiterawatt Laser Pulse Interacts with Solid Targets. Physical Review Letters, 2000, 84, 899-902.	2.9	234
9	Clocking Femtosecond X Rays. Physical Review Letters, 2005, 94, 114801.	2.9	230
10	Shock deformation of face-centred-cubic metals on subnanosecond timescales. Nature Materials, 2006, 5, 805-809.	13.3	227
11	Observation of a highly directional Î³-ray beam from ultrashort, ultraintense laser pulse interactions with solids. Physics of Plasmas, 1999, 6, 2150-2156.	0.7	197
12	Effect of the Plasma Density Scale Length on the Direction of Fast Electrons in Relativistic Laser-Solid Interactions. Physical Review Letters, 2000, 84, 1459-1462.	2.9	197
13	Short-wavelength free-electron laser sources and science: a review. Reports on Progress in Physics, 2017, 80, 115901.	8.1	183
14	Anomalous Elastic Response of Silicon to Uniaxial Shock Compression on Nanosecond Time Scales. Physical Review Letters, 2001, 86, 2349-2352.	2.9	177
15	Femtosecond Visualization of Lattice Dynamics in Shock-Compressed Matter. Science, 2013, 342, 220-223.	6.0	176
16	Probing Impulsive Strain Propagation with X-Ray Pulses. Physical Review Letters, 2001, 86, 3072-3075.	2.9	160
17	Fourier-transform inelastic X-ray scattering from time- and momentum-dependent phononâ€“phonon correlations. Nature Physics, 2013, 9, 790-794.	6.5	149
18	Finite temperature dense matter studies on next-generation light sources. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 770.	0.9	146

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19	A Saturated X-ray Laser Beam at 7 Nanometers. Science, 1997, 276, 1097-1100.	6.0	141
20	Shock Waves in Polycrystalline Iron. Physical Review Letters, 2007, 98, 135701.	2.9	138
21	Role of the plasma scale length in the harmonic generation from solid targets. Physical Review E, 1998, 58, R5253-R5256.	0.8	135
22	High-order harmonics of 248.6-nm KrF laser from helium and neon ions. Physical Review A, 1996, 53, R31-R34.	1.0	109
23	Analysis of the x-ray diffraction signal for theÎ±â˜Ïµtransition in shock-compressed iron: Simulation and experiment. Physical Review B, 2006, 74, .	1.1	109
24	In situ X-ray diffraction measurement of shock-wave-driven twinning and lattice dynamics. Nature, 2017, 550, 496-499.	13.7	108
25	Subnanosecond x-ray diffraction from laser-shocked crystals. Physical Review B, 1989, 40, 5705-5714.	1.1	101
26	Demonstration of Saturation in a Ni-like Ag X-Ray Laser at 14 nm. Physical Review Letters, 1997, 78, 3856-3859.	2.9	99
27	Measurements of continuum lowering in solid-density plasmas created from elements and compounds. Nature Communications, 2016, 7, 11713.	5.8	99
28	Density functional theory calculations of continuum lowering in strongly coupled plasmas. Nature Communications, 2014, 5, 3533.	5.8	94
29	Imaging Shock Waves in Diamond with Both High Temporal and Spatial Resolution at an XFEL. Scientific Reports, 2015, 5, 11089.	1.6	88
30	Materials science under extreme conditions of pressure and strain rate. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 2587-2607.	1.1	82
31	Metastability of diamond ramp-compressed to 2 terapascals. Nature, 2021, 589, 532-535.	13.7	79
32	In situx-ray diffraction measurements of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>c</mml:mi><mml:mo>/</mml:mo><mml:mi>a</mml:mi></mml:mrow></mml:math>ratio in the high-pressure<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Îµ</mml:mi></mml:mrow></mml:math>phase of shock-compressed polycrystalline iron. Physical Review B, 2011, 83, .	1.1	74
33	Molecular dynamics simulations of shock-induced plasticity in tantalum. High Energy Density Physics, 2014, 10, 9-15.	0.4	74
34	Investigation of femtosecond collisional ionization rates in a solid-density aluminium plasma. Nature Communications, 2015, 6, 6397.	5.8	73
35	The strength of single crystal copper under uniaxial shock compression at 100 GPa. Journal of Physics Condensed Matter, 2010, 22, 065404.	0.7	70
36	Phase transition lowering in dynamically compressed silicon. Nature Physics, 2019, 15, 89-94.	6.5	70

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37	The effects of ionization potential depression on the spectra emitted by hot dense aluminium plasmas. High Energy Density Physics, 2013, 9, 258-263.	0.4	66
38	Ultrafast x-ray diffraction using a streak-camera detector in averaging mode. Optics Letters, 1997, 22, 1012.	1.7	65
39	Direct Observation of Melting in Shock-Compressed Bismuth With Femtosecond X-ray Diffraction. Physical Review Letters, 2015, 115, 095701.	2.9	64
40	Shock launching in silicon studied with use of pulsed x-ray diffraction. Physical Review B, 1987, 35, 9391-9394.	1.1	62
41	Solid-state experiments at high pressure and strain rate. Physics of Plasmas, 2000, 7, 1999-2006.	0.7	62
42	Electronic Structure of an XUV Photogenerated Solid-Density Aluminum Plasma. Physical Review Letters, 2010, 104, 225001.	2.9	62
43	Measurements of the hole boring velocity from Doppler shifted harmonic emission from solid targets. Physics of Plasmas, 1996, 3, 3242-3244.	0.7	61
44	Strength of Shock-Loaded Single-Crystal Tantalum [100] Determined usingInÂSituBroadband X-Ray Laue Diffraction. Physical Review Letters, 2013, 110, 115501.	2.9	61
45	Shock waves in polycrystalline iron: Plasticity and phase transitions. Physical Review B, 2014, 89, .	1.1	61
46	Imaging transient melting of a nanocrystal using an X-ray laser. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7444-7448.	3.3	59
47	Resonant<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>K</mml:mi><mml:mi>Î±</mml:mi></mml:math>Spectroscopy of Solid-Density Aluminum Plasmas. Physical Review Letters, 2012, 109, 245003.	2.9	58
48	Molecular dynamics simulations of shock-induced deformation twinning of a body-centered-cubic metal. Physical Review B, 2013, 88, .	1.1	58
49	Observation of Structural Anisotropy and the Onset of Liquidlike Motion During the Nonthermal Melting of InSb. Physical Review Letters, 2005, 95, 125701.	2.9	56
50	Saturated output of a GeXXIII x-ray laser at 19.6 nm. Physical Review A, 1996, 54, R4653-R4656.	1.0	55
51	Plasma Temperature in Optical Field Ionization of Gases by Intense Ultrashort Pulses of Ultraviolet Radiation. Physical Review Letters, 1995, 74, 554-557.	2.9	54
52	Femtosecond X-Ray Diffraction Studies of the Reversal of the Microstructural Effects of Plastic Deformation during Shock Release of Tantalum. Physical Review Letters, 2018, 120, 265502.	2.9	53
53	Ultrafast X-Ray Diffraction Studies of the Phase Transitions and Equation of State of Scandium Shock Compressed to 82ÂGPa. Physical Review Letters, 2017, 118, 025501.	2.9	50
54	High-pressure nanocrystalline structure of a shock-compressed single crystal of iron. Physical Review B, 2008, 78, .	1.1	48

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55	keV x-ray spectroscopy of plasmas produced by the intense picosecond irradiation of a gas of xenon clusters. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 2825-2831.	0.6	46
56	Nanosecond white-light Laue diffraction measurements of dislocation microstructure in shock-compressed single-crystal copper. Nature Communications, 2012, 3, 1224.	5.8	46
57	The creation of large-volume, gradient-free warm dense matter with an x-ray free-electron laser. Physics of Plasmas, 2015, 22, .	0.7	45
58	Soft x-ray free electron laser microfocus for exploring matter under extreme conditions. Optics Express, 2009, 17, 18271.	1.7	44
59	Saturable Absorption of an X-Ray Free-Electron-Laser Heated Solid-Density Aluminum Plasma. Physical Review Letters, 2015, 114, 015003.	2.9	44
60	X-ray diffraction at the National Ignition Facility. Review of Scientific Instruments, 2020, 91, 043902.	0.6	42
61	Extension of the time-dependent dynamical diffraction theory to `optical phonon'-type distortions: application to diffraction from coherent acoustic and optical phonons. Acta Crystallographica Section A: Foundations and Advances, 2003, 59, 7-13.	0.3	41
62	High-pressure, high-strain-rate lattice response of shocked materials. Physics of Plasmas, 2003, 10, 1569-1576.	0.7	41
63	Direct measurements of compressive and tensile strain during shock breakout by use of subnanosecond xâ€ray diffraction. Journal of Applied Physics, 1990, 68, 4531-4534.	1.1	40
64	Coherence and bandwidth measurements of harmonics generated from solid surfaces irradiated by intense picosecond laser pulses. Physical Review A, 1996, 54, 1597-1603.	1.0	40
65	From microjoules to megajoules and kilobars to gigabars: Probing matter at extreme states of deformation. Physics of Plasmas, 2015, 22, 090501.	0.7	39
66	Electron temperature of optically ionized gases produced by high intensity 268 nm laser radiation. Physical Review Letters, 1993, 71, 3983-3986.	2.9	38
67	Transient Strain Driven by a Dense Electron-Hole Plasma. Physical Review Letters, 2003, 91, 165502.	2.9	38
68	Molecular dynamics simulations of shock-compressed single-crystal silicon. Physical Review B, 2014, 89, .	1.1	38
69	Decay of Cystalline Order and Equilibration during the Solid-to-Plasma Transition Induced by 20-fs Microfocused 92-eV Free-Electron-Laser Pulses. Physical Review Letters, 2011, 106, 164801.	2.9	37
70	<title>Femtosecond x-ray diffraction: experiments and limits</title>. , 2001, , .		36
71	Multiple film plane diagnostic for shocked lattice measurements (invited). Review of Scientific Instruments, 2003, 74, 1929-1934.	0.6	36
72	Identification of Phase Transitions and Metastability in Dynamically Compressed Antimony Using Ultrafast X-Ray Diffraction. Physical Review Letters, 2019, 122, 255704.	2.9	36

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73	Femtosecond diffraction studies of solid and liquid phase changes in shock-compressed bismuth. Scientific Reports, 2018, 8, 16927.	1.6	33
74	Freeâ€“free opacity in warm dense aluminum. High Energy Density Physics, 2009, 5, 124-131.	0.4	32
75	Spectroscopy of compressed high energy density matter. Physical Review E, 1996, 53, 6396-6402.	0.8	31
76	Picosecond X-Ray Studies of Coherent Folded Acoustic Phonons in a Multiple Quantum Well. Physical Review Letters, 2005, 94, 125509.	2.9	31
77	Simulations of neon irradiated by intense X-ray laser radiation. High Energy Density Physics, 2011, 7, 111-116.	0.4	31
78	Time-resolved X-ray diffraction. Contemporary Physics, 1996, 37, 205-218.	0.8	28
79	Orthogonal strains and onset of plasticity in shocked LiF crystals. Physical Review B, 1995, 52, 8-11.	1.1	27
80	Transient x-ray diffraction used to diagnose shock compressed Si crystals on the Nova laser. Review of Scientific Instruments, 1999, 70, 629-632.	0.6	27
81	Effect of velocity gradients on x-ray line transfer in laser-produced plasmas. Physical Review Letters, 1994, 72, 1826-1829.	2.9	26
82	Thomson scattering measurements of heat flow in a laser-produced plasma. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 1541-1551.	0.6	26
83	Metal deformation and phase transitions at extremely high strain rates. MRS Bulletin, 2010, 35, 999-1006.	1.7	26
84	Detailed model for hot-dense aluminum plasmas generated by an x-ray free electron laser. Physics of Plasmas, 2016, 23, .	0.7	24
85	Inelastic response of silicon to shock compression. Scientific Reports, 2016, 6, 24211.	1.6	24
86	Simultaneous 8.2â€‰keV phase-contrast imaging and 24.6â€‰keV X-ray diffraction from shock-compressed matter at the LCLS. Applied Physics Letters, 2018, 112, .	1.5	24
87	Novel measurements of highâ€dynamic crystal strength by picosecond xâ€ray diffraction. Applied Physics Letters, 1992, 61, 651-653.	1.5	22
88	K-shell spectroscopy of an independently diagnosed uniaxially expanding laser-produced aluminum plasma. Physical Review E, 2002, 66, 026410.	0.8	22
89	Nanosecond x-Ray diffraction from polycrystalline and amorphous materials in a pinhole camera geometry suitable for laser shock compression experiments. Review of Scientific Instruments, 2007, 78, 083908.	0.6	22
90	Clocking Femtosecond Collisional Dynamics via Resonant X-Ray Spectroscopy. Physical Review Letters, 2018, 120, 055002.	2.9	22

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91	Femtosecond quantification of void evolution during rapid material failure. Science Advances, 2020, 6, .	4.7	22
92	Novel Plasma Source for Dense Plasma Effects. Physical Review Letters, 1995, 74, 3616-3619.	2.9	21
93	Simulating picosecond x-ray diffraction from shocked crystals using post-processing molecular dynamics calculations. Journal of Physics Condensed Matter, 2008, 20, 505203.	0.7	21
94	An approach for the measurement of the bulk temperature of single crystal diamond using an X-ray free electron laser. Scientific Reports, 2020, 10, 14564.	1.6	21
95	Optimization of double pulse pumping for Ni-like Sm x-ray lasers. Journal of Applied Physics, 1999, 85, 672-675.	1.1	20
96	Phonon instabilities in uniaxially compressed fcc metals as seen in molecular dynamics simulations. Physical Review B, 2010, 81, .	1.1	20
97	Doubleâ€crystal highâ€resolution xâ€ray spectroscopy of laserâ€produced plasmas. Review of Scientific Instruments, 1993, 64, 26-30.	0.6	19
98	Measuring stacking fault densities in shock-compressed FCC crystals usingin situx-ray diffraction. Journal of Physics Condensed Matter, 2006, 18, 6749-6757.	0.7	19
99	Nanosecond x-ray Laue diffraction apparatus suitable for laser shock compression experiments. Review of Scientific Instruments, 2010, 81, 083902.	0.6	19
100	Coherent control of phonons probed by time-resolved x-ray diffraction. Optics Letters, 2002, 27, 869.	1.7	18
101	Simulations of in situ x-ray diffraction from uniaxially compressed highly textured polycrystalline targets. Journal of Applied Physics, 2015, 118, .	1.1	18
102	X-ray diffraction measurements of plasticity in shock-compressed vanadium in the region of 10â€“70 GPa. Journal of Applied Physics, 2017, 122, .	1.1	18
103	Shocked materials at the intersection of experiment and simulation. Scientific Modeling and Simulation SMNS, 2008, 15, 159-186.	0.8	17
104	Comparison between x-ray scattering and velocity-interferometry measurements from shocked liquid deuterium. Physical Review E, 2013, 87, 043112.	0.8	17
105	Validating Continuum Lowering Models via Multi-Wavelength Measurements of Integrated X-ray Emission. Scientific Reports, 2018, 8, 6276.	1.6	17
106	X-ray laser peels and cores atoms. Nature, 2010, 466, 35-36.	13.7	16
107	Simulations of copper single crystals subjected to rapid shear. Journal of Applied Physics, 2011, 109, 063530.	1.1	16
108	Ab initio simulations and measurements of the free-free opacity in aluminum. Physical Review E, 2019, 100, 043207.	0.8	16

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109	Astrophysically relevant experiments on radiation transfer through plasmas with large velocity gradients. Physics of Plasmas, 1997, 4, 2004-2010.	0.7	15
110	Enhancement of Optically Thick to Thin Line Intensities in Solar and Stellar Coronal Plasmas through Radiative Transfer Effects: An Angularly Resolved Study. Astrophysical Journal, 2004, 613, L181-L184.	1.6	15
111	An Analytic Geometryâ€Variant Approach to Line Ratio Enhancement above the Optically Thin Limit. Astrophysical Journal, 2005, 629, 1091-1101.	1.6	15
112	Measurements of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>K</mml:mi></mml:math> -Shell Opacity of a Solid-Density Magnesium Plasma Heated by an X-Ray Free-Electron Laser. Physical Review Letters, 2017, 119, 085001.	2.9	15
113	Time-Resolved XUV Opacity Measurements of Warm Dense Aluminum. Physical Review Letters, 2020, 124, 225002.	2.9	15
114	High-resolution inelastic x-ray scattering at the high energy density scientific instrument at the European X-Ray Free-Electron Laser. Review of Scientific Instruments, 2021, 92, 013101.	0.6	15
115	Characterization of a capillary-discharge plasma. Physical Review E, 1993, 47, 1305-1312.	0.8	14
116	Near-field spatial imaging of a Ni-like Ag 140-Ã... x-ray laser. Physical Review A, 1997, 56, 3161-3165.	1.0	14
117	Molecular dynamics simulations of ramp-compressed copper. Physical Review B, 2012, 85, .	1.1	14
118	Observation of Reverse Saturable Absorption of an X-ray Laser. Physical Review Letters, 2017, 119, 075002.	2.9	14
119	Recovery of a high-pressure phase formed under laser-driven compression. Physical Review B, 2020, 102, .	1.1	14
120	Vertical dispersion mode doubleâ€crystal spectrometer for advanced spectroscopy of laserâ€produced plasma. Review of Scientific Instruments, 1995, 66, 3234-3243.	0.6	13
121	A history of high-power laser research and development in the United Kingdom. High Power Laser Science and Engineering, 2021, 9, .	2.0	13
122	Imaging of high harmonic radiation emitted during the interaction of a 20 TW laser with a solid target. Journal of Applied Physics, 1997, 81, 2055-2058.	1.1	12
123	Large Acoustic Transients Induced by Nonthermal Melting of InSb. Physical Review Letters, 2007, 98, 225502.	2.9	12
124	Molecular dynamics simulations of the Debye-Waller effect in shocked copper. Physical Review B, 2008, 78, .	1.1	12
125	Recovery of metastable dense Bi synthesized by shock compression. Applied Physics Letters, 2019, 114, 120601.	1.5	12
126	Modeling of time resolved x-ray diffraction from laser-shocked crystals. Journal of Applied Physics, 1997, 81, 3023-3037.	1.1	11

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127	Optically induced lattice dynamics probed with ultrafast x-ray diffraction. Physical Review B, 2008, 77, .	1.1	11
128	Single photon energy dispersive x-ray diffraction. Review of Scientific Instruments, 2014, 85, 033906.	0.6	11
129	Nonisentropic Release of a Shocked Solid. Physical Review Letters, 2019, 123, 245501.	2.9	11
130	Modeling Planetary Interiors in Laser Based Experiments Using Shockless Compression. Astrophysics and Space Science, 2007, 307, 285-289.	0.5	10
131	Probing the Electronic Structure of Warm Dense Nickel via Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2020, 125, 195001.	2.9	10
132	Simultaneous diagnosis of radial profiles and mix in NIF ignition-scale implosions via X-ray spectroscopy. Physics of Plasmas, 2017, 24, .	0.7	9
133	Laboratory measurements of geometrical effects in the x-ray emission of optically thick lines for ICF diagnostics. Physics of Plasmas, 2019, 26, .	0.7	9
134	Line intensity enhancements in stellar coronal X-ray spectra due to opacity effects. Astronomy and Astrophysics, 2008, 483, 887-890.	2.1	9
135	Generation of large, high density, homogeneous plasma by capillary discharge. Applied Physics Letters, 1994, 64, 3542-3544.	1.5	8
136	Simulations of Al XIIIâ€“Fe XXIV X-ray laser photopumping scheme. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 71, 129-138.	1.1	8
137	Testing quantum mechanics in non-Minkowski space-time with high power lasers and 4th generation light sources. Scientific Reports, 2012, 2, 491.	1.6	8
138	Production of strongly coupled plasmas by the laser irradiation of thin metallic films confined within micrometer-scale gaps by transparent insulators. Physical Review E, 1994, 50, 3935-3942.	0.8	7
139	Comparison of the semiclassical and modified semiempirical method of spectral calculation. Physical Review E, 1997, 56, 936-946.	0.8	7
140	Calculations of the modal photon densities and gain in a K/Cl resonantly photopumped X-ray laser. Journal of Quantitative Spectroscopy and Radiative Transfer, 2000, 65, 71-81.	1.1	7
141	Investigating off-Hugoniot states using multi-layer ring-up targets. Scientific Reports, 2020, 10, 13172.	1.6	7
142	Table-top picosecond sources. Nature, 1999, 398, 284-285.	13.7	6
143	Predicting EXAFS signals from shock compressed iron by use of molecular dynamics simulations. High Energy Density Physics, 2009, 5, 44-50.	0.4	6
144	Atomic processes modeling of X-ray free electron laser produced plasmas using SCFLY code. AIP Conference Proceedings, 2017, , .	0.3	6

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145	Molecular dynamics simulations of grain interactions in shock-compressed highly textured columnar nanocrystals. Physical Review Materials, 2019, 3, .	0.9	6
146	Vertical variant of a double channel-cut crystal spectrometer for investigation of laser-generated plasmas. Review of Scientific Instruments, 1999, 70, 3025-3031.	0.6	5
147	Kinematics of slip-induced rotation for uniaxial shock or ramp compression. Journal of Applied Physics, 2021, 129, 085109.	1.1	5
148	Generation of bright, extreme-ultraviolet harmonic radiation from a krypton fluoride laser. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 1069-1082.	0.6	4
149	Detailed simulations of sonoluminescence spectra. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, L511-L518.	0.6	4
150	Investigation of the Onset and Development of Forward Scattering in an Underdense Plasma. Physical Review Letters, 2003, 90, 245001.	2.9	4
151	X-Ray Diffraction from Shocked Crystals: Experiments and Predictions of Molecular Dynamics Simulations. AIP Conference Proceedings, 2004, , .	0.3	4
152	Simulations of time-resolved x-ray diffraction in Laue geometry. Journal of Physics Condensed Matter, 2006, 18, 9231-9244.	0.7	4
153	Picosecond X-Ray Diffraction from Laser-Shocked Copper and Iron. AIP Conference Proceedings, 2006, , .	0.3	4
154	Bragg diffraction using a 100 ps 17.5 keV x-ray backlighter and the Bragg diffraction imager. Review of Scientific Instruments, 2010, 81, 10E522.	0.6	4
155	Molecular dynamics simulations of inelastic x-ray scattering from shocked copper. Journal of Applied Physics, 2021, 130, .	1.1	4
156	Development of XUV lasers at the RAL Central Laser Facility. Optical and Quantum Electronics, 1996, 28, 201-208.	1.5	3
157	A versatile matrix-based solution for the two plasmon decay instability. Physics of Plasmas, 2001, 8, 704-712.	0.7	3
158	Investigations into rapid uniaxial compression of polycrystalline targets using femtosecond X-ray diffraction. Journal of Physics: Conference Series, 2014, 500, 112063.	0.3	3
159	Combined Hydrodynamic and Diffraction Simulations of Femtosecond X-ray Scattering from Laser-Shocked Crystals. Journal of Physics: Conference Series, 2014, 500, 152016.	0.3	3
160	Single Hit Energy-resolved Laue Diffraction. Review of Scientific Instruments, 2015, 86, 053908.	0.6	3
161	Radiation Transfer Effects on the Spectra of Laser-Generated Plasmas. Physical Review Letters, 2006, 96, 185002.	2.9	2
162	TEMPERATURE MEASUREMENTS OF SHOCKED CRYSTALS BY USE OF NANOSECOND X-RAY DIFFRACTION. AIP Conference Proceedings, 2008, , .	0.3	2

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163	Probing dynamic material strength using in situ x-ray diffraction. , 2012, , .		2
164	Comley etÂal. Reply:. Physical Review Letters, 2014, 113, 039602.	2.9	2
165	Simulations of the time and space-resolved x-ray transmission of a free-electron-laser-heated aluminium plasma. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 035603.	0.6	2
166	A novel method to measure ion density in ICF experiments using x-ray spectroscopy of cylindrical tracers. Physics of Plasmas, 2020, 27, 112714.	0.7	2
167	Demonstration of Geometric Effects and Resonant Scattering in the X-Ray Spectra of High-Energy-Density Plasmas. Physical Review Letters, 2021, 126, 085001.	2.9	2
168	Excited-state potentials for modelling dense plasmas from first principles. Plasma Physics and Controlled Fusion, 2021, 63, 114006.	0.9	2
169	Comments on A new theory for X-ray diffraction. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, 447-456.	0.0	2
170	Slip competition and rotation suppression in tantalum and copper during dynamic uniaxial compression. Physical Review Materials, 2022, 6, .	0.9	2
171	Atomistic investigation of cavitation and ablation in tantalum foils under irradiation with x-rays approaching 5 keV. Physical Review B, 2022, 106, .	1.1	2
172	Transient effects in laser-plasma X-ray spectrometers. Laser and Particle Beams, 1991, 9, 569-577.	0.4	1
173	Simulated X-ray streak camera data of in situ diffraction from laser-shocked single crystals. AIP Conference Proceedings, 1994, , .	0.3	1
174	Laser induced nuclear reactions. , 1998, , .		1
175	Recent progress in coherent XUV generation at RAL. , 1998, , .		1
176	A fluid-kinetic model for the two plasmon decay instability. Physics of Plasmas, 2001, 8, 4357-4366.	0.7	1
177	<title>Simulation of the time-dependent dynamical diffraction of FEL x-ray pulses</title>. , 2001, , .		1
178	X-Ray Line Transfer in Plasmas with Large Velocity Gradients. Astrophysics and Space Science, 2005, 298, 171-176.	0.5	1
179	ATOMISTIC SIMULATIONS OF SHOCK-INDUCED PHASE TRANSFORMATIONS IN POLYCRYSTALLINE IRON. , 2008, , .		1
180	SIMULATING PICOSECOND X-RAY DIFFRACTION FROM CRYSTALS USING FFT METHODS ON MD OUTPUT. AIP Conference Proceedings, 2008, , .	0.3	1

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181	Sub-nanosecond X-Ray Diffraction from Laser-Shocked Crystals. Springer Series in Optical Sciences, 1992, , 455-457.	0.5	1
182	Effect of Velocity Gradients on X-Ray Line Transfer in Laser-Produced Plasmas. Physical Review Letters, 1995, 75, 1680-1680.	2.9	0
183	In situ x-ray diffraction from uniform radiation driven shocks in crystalline solids. AIP Conference Proceedings, 1996, , .	0.3	0
184	Spectral line formation in dense large-gradient plasma. European Physical Journal D, 1998, 48, 557-563.	0.4	0
185	Optimizing harmonics from solid targets. , 1998, , .		0
186	Simulations of a photopumped X-ray laser using the H-like Clâ¶Li-like Se scheme. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 203-213.	1.1	0
187	Opportunities and challenges using short-pulse x-ray sources. Journal of Physics: Conference Series, 2005, 21, 87-94.	0.3	0
188	Picosecond x-ray diffraction studies of shocked single crystals. , 2006, , .		0
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