

Marion Harmand

List of Publications by Year in descending order

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66
papers

1,781
citations

279798

23
h-index

276875

41
g-index

66
all docs

66
docs citations

66
times ranked

2609
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards a dynamic compression facility at the ESRF. <i>Journal of Synchrotron Radiation</i> , 2022, 29, 167-179.	2.4	6
2	X-ray diffraction study of phase transformation dynamics of Fe and Fe-Si alloys along the shock Hugoniot using an x-ray free electron laser. <i>Physical Review B</i> , 2022, 105, .	3.2	1
3	Demonstration of an x-ray Raman spectroscopy setup to study warm dense carbon at the high energy density instrument of European XFEL. <i>Physics of Plasmas</i> , 2021, 28, 082701.	1.9	11
4	Imaging plasma formation in isolated nanoparticles with ultrafast resonant scattering. <i>Structural Dynamics</i> , 2020, 7, 034303.	2.3	14
5	Melting properties by X-ray absorption spectroscopy: common signatures in binary Fe-C, Fe-O, Fe-S and Fe-Si systems. <i>Scientific Reports</i> , 2020, 10, 11663.	3.3	13
6	Design and performance characterisation of the HAPG von Hahn Spectrometer at the High Energy Density Instrument of the European XFEL. <i>Journal of Instrumentation</i> , 2020, 15, P11033-P11033.	1.2	15
7	Xenon and iodine behaviour in magmas. <i>Earth and Planetary Science Letters</i> , 2019, 522, 144-154.	4.4	10
8	Ferrous Iron Under Oxygen-Rich Conditions in the Deep Mantle. <i>Geophysical Research Letters</i> , 2019, 46, 1348-1356.	4.0	22
9	Challenges and opportunities in attosecond and XFEL science. <i>Nature Reviews Physics</i> , 2019, 1, 107-111.	26.6	29
10	Phase transition lowering in dynamically compressed silicon. <i>Nature Physics</i> , 2019, 15, 89-94.	16.7	70
11	In Situ Characterization of XFEL Beam Intensity Distribution and Focusability by High-Resolution LiF Crystal Detector. <i>Springer Proceedings in Physics</i> , 2018, , 109-115.	0.2	0
12	Solving Controversies on the Iron Phase Diagram Under High Pressure. <i>Geophysical Research Letters</i> , 2018, 45, 11,074.	4.0	65
13	Simultaneous 8.2-keV phase-contrast imaging and 24.6-keV X-ray diffraction from shock-compressed matter at the LCLS. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	24
14	Ultrafast observation of lattice dynamics in laser-irradiated gold foils. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	20
15	Nanometer-scale characterization of laser-driven compression, shocks, and phase transitions, by x-ray scattering using free electron lasers. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	12
16	Targets for high repetition rate laser facilities: needs, challenges and perspectives. <i>High Power Laser Science and Engineering</i> , 2017, 5, .	4.6	106
17	Dynamic fracture of tantalum under extreme tensile stress. <i>Science Advances</i> , 2017, 3, e1602705.	10.3	41
18	Time-resolved x-ray imaging of a laser-induced nanoplasma and its neutral residuals. <i>New Journal of Physics</i> , 2016, 18, 043017.	2.9	18

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19	Recombination-Enhanced Surface Expansion of Clusters in Intense Soft X-Ray Laser Pulses. <i>Physical Review Letters</i> , 2016, 117, 153401.	7.8	21
20	Indirect monitoring shot-to-shot shock waves strength reproducibility during pump-probe experiments. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	5
21	Dynamic X-ray diffraction observation of shocked solid iron up to 170 GPa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7745-7749.	7.1	33
22	X-ray absorption spectroscopy of iron at multimegabar pressures in laser shock experiments. <i>Physical Review B</i> , 2015, 92, .	3.2	51
23	Time evolution of electron structure in femtosecond heated warm dense molybdenum. <i>Physical Review B</i> , 2015, 92, .	3.2	20
24	Towards simultaneous measurements of electronic and structural properties in ultra-fast x-ray free electron laser absorption spectroscopy experiments. <i>Scientific Reports</i> , 2015, 4, 4724.	3.3	23
25	Production and Diagnostics of Dense Matter. <i>Contributions To Plasma Physics</i> , 2015, 55, 67-77.	1.1	3
26	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
27	Soft x-ray free-electron laser induced damage to inorganic scintillators. <i>Optical Materials Express</i> , 2015, 5, 254.	3.0	11
28	La révolution X-FEL: des lasers à rayons X pour sonder la matière. , 2015, , 44-49.	0.1	0
29	Spatio-temporal coherence of free-electron laser radiation in the extreme ultraviolet determined by a Michelson interferometer. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	13
30	Ab initio calculation of x-ray absorption of iron up to 3 Mbar and 8000 K. <i>Physical Review B</i> , 2014, 89, .	3.2	13
31	Equilibration dynamics and conductivity of warm dense hydrogen. <i>Physical Review E</i> , 2014, 90, 013104.	2.1	22
32	Progress in warm dense matter study with applications to planetology. <i>Physica Scripta</i> , 2014, T161, 014060.	2.5	54
33	Resolving Ultrafast Heating of Dense Cryogenic Hydrogen. <i>Physical Review Letters</i> , 2014, 112, 105002.	7.8	95
34	Evidence for a glassy state in strongly driven carbon. <i>Scientific Reports</i> , 2014, 4, 5214.	3.3	28
35	Electron Kinetics in Femtosecond X-Ray Irradiated SiO ₂ . <i>Contributions To Plasma Physics</i> , 2013, 53, 347-354.	1.1	27
36	Photon energy dependence of graphitization threshold for diamond irradiated with an intense XUV FEL pulse. <i>Physical Review B</i> , 2013, 88, .	3.2	33

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37	Experimental set-up and procedures for the investigation of XUV free electron laser interactions with solids. <i>Journal of Instrumentation</i> , 2013, 8, P02010-P02010.	1.2	12
38	Achieving few-femtosecond time-sorting at hard X-ray free-electron lasers. <i>Nature Photonics</i> , 2013, 7, 215-218.	31.4	323
39	Single-shot pulse duration monitor for extreme ultraviolet and X-ray free-electron lasers. <i>Nature Communications</i> , 2013, 4, 1731.	12.8	87
40	Synchronizing optics and X-rays. <i>Nature Photonics</i> , 2013, 7, 256-256.	31.4	1
41	Femtosecond optical/hard X-ray timing diagnostics at an FEL: implementation and performance. <i>Proceedings of SPIE</i> , 2013, , .	0.8	14
42	Review of High Energy Density Physics Activity in Europe. <i>The Review of Laser Engineering</i> , 2013, 41, 39.	0.0	0
43	Dynamique ultra-rapide de la transition de phase solide-liquide-vapeur par spectroscopie XANES rÅ©solue en temps. , 2013, , .		0
44	Plasma switch as a temporal overlap tool for pump-probe experiments at FEL facilities. <i>Journal of Instrumentation</i> , 2012, 7, P08007-P08007.	1.2	3
45	Generation of the simplest rotational wave packet in a diatomic molecule: Tracing a two-level superposition in the time domain. <i>Physical Review A</i> , 2012, 85, .	2.5	9
46	Investigating the interaction of x-ray free electron laser radiation with grating structure. <i>Optics Letters</i> , 2012, 37, 3033.	3.3	16
47	Spectral encoding based measurement of x-ray/optical relative delay to ~10 fs rms. <i>Proceedings of SPIE</i> , 2012, , .	0.8	7
48	In-situ determination of dispersion and resolving power in simultaneous multiple-angle XUV spectroscopy. <i>Journal of Instrumentation</i> , 2011, 6, P10001-P10001.	1.2	8
49	Unraveling the Solid-Liquid-Vapor Phase Transition Dynamics at the Atomic Level with Ultrafast X-Ray Absorption Near-Edge Spectroscopy. <i>Physical Review Letters</i> , 2011, 107, 245006.	7.8	44
50	Isochoric heating of solids by laser-accelerated protons: Experimental characterization and self-consistent hydrodynamic modeling. <i>High Energy Density Physics</i> , 2010, 6, 21-28.	1.5	56
51	Temporal and spectral behavior of sub-picosecond laser-created X-ray sources from low- to moderate-Z elements. <i>High Energy Density Physics</i> , 2010, 6, 99-104.	1.5	6
52	Double conical crystal x-ray spectrometer for high resolution ultrafast x-ray absorption near-edge spectroscopy of Al K edge. <i>Review of Scientific Instruments</i> , 2010, 81, 063107.	1.3	19
53	Picosecond Short-Range Disorder in Isochorically Heated Aluminum at Solid Density. <i>Physical Review Letters</i> , 2010, 104, 035002.	7.8	75
54	Broadband, high dynamics and high resolution charge coupled device-based spectrometer in dynamic mode for multi-keV repetitive x-ray sources. <i>Review of Scientific Instruments</i> , 2009, 80, 083505.	1.3	43

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55	Broad M-band multi-keV x-ray emission from plasmas created by short laser pulses. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	23
56	K-edge Absorption spectra in Warm Dense Matter. , 2009, , .		0
57	X-ray absorption for the study of warm dense matter. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 124021.	2.1	26
58	Absorption X près des seuils (XANES, EXAFS) pour l'étude de la matière dense et tiède. , 2009, , .		0
59	Dynamique temporelle des sources X créées par laser sub-picoseconde. , 2009, , .		0
60	High-power 1 kHz laser-plasma x-ray source for ultrafast x-ray absorption near-edge spectroscopy in the keV range. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	21
61	High dynamic range streak camera for subpicosecond time-resolved x-ray spectroscopy. <i>Review of Scientific Instruments</i> , 2007, 78, 043503.	1.3	26
62	High repetition rate laser produced soft x-ray source for ultrafast x-ray absorption near edge structure measurements. <i>Review of Scientific Instruments</i> , 2007, 78, 113104.	1.3	16
63	Dynamics of rare gas nanoclusters irradiated by short and intense laser pulses. <i>High Energy Density Physics</i> , 2007, 3, 191-197.	1.5	10
64	Caractérisation spectrale et temporelle de l'émission X issue de l'interaction laser-agrégats. <i>European Physical Journal Special Topics</i> , 2006, 138, 73-81.	0.2	1
65	<title>Ultra short x-ray source from laser-clusters interaction</title>. , 2006, , .		0
66	Time-resolved X-ray spectra of hot & dense plasmas from laser-clusters interaction. <i>European Physical Journal Special Topics</i> , 2006, 133, 963-966.	0.2	0