Federica Coppari

List of Publications by Year
in descending order

57	1,859	279701 23	265120 42
papers	citations	h-index	g-index

59	59	59	1739
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantitative measurements of density in shock-compressed silver up to 330 GPa using x-ray diffraction. Journal of Applied Physics, 2022, 131, .	1.1	6
2	Measuring the melting curve of iron at super-Earth core conditions. Science, 2022, 375, 202-205.	6.0	39
3	Structure and density of silicon carbide to 1.5 TPa and implications for extrasolar planets. Nature Communications, 2022, 13, 2260.	5.8	11
4	Structural complexity in ramp-compressed sodium to 480â€‰GPa. Nature Communications, 2022, 13, 2534.	5.8	14
5	Emission phases of implosion sources for x-ray absorption fine structure spectroscopy. Physics of Plasmas, 2022, 29, .	0.7	5
6	Quantitative analysis of diffraction by liquids using a pink-spectrum X-ray source. Journal of Synchrotron Radiation, 2022, 29, 1033-1042.	1.0	4
7	Development of slurry targets for high repetition-rate x-ray free electron laser experiments. Journal of Applied Physics, 2022, 131, .	1.1	3
8	Metastability of diamond ramp-compressed to 2 terapascals. Nature, 2021, 589, 532-535.	13.7	79
9	Implications of the iron oxide phase transition on the interiors of rocky exoplanets. Nature Geoscience, 2021, 14, 121-126.	5.4	28
10	A new class of focusing crystal shapes for Bragg spectroscopy of small, point-like, x-ray sources in laser produced plasmas. Review of Scientific Instruments, 2021, 92, 043531.	0.6	4
11	The multi-optics high-resolution absorption x-ray spectrometer (HiRAXS) for studies of materials under extreme conditions. Review of Scientific Instruments, 2021, 92, 053102.	0.6	6
12	Long duration x-ray source development for x-ray diffraction at the National Ignition Facility. Review of Scientific Instruments, 2021, 92, 053904.	0.6	3
13	Melting of Tantalum at Multimegabar Pressures on the Nanosecond Timescale. Physical Review Letters, 2021, 126, 255701.	2.9	11
14	Techniques for studying materials under extreme states of high energy density compression. Physics of Plasmas, 2021, 28, 060901.	0.7	3
15	Metastability of Liquid Water Freezing into Ice VII under Dynamic Compression. Physical Review Letters, 2021, 127, 135701.	2.9	7
16	Long-Duration X-Ray Source Development for X-Ray Diffraction at The National Ignition Facility. , 2021, , .		0
17	Foil backlighter development at the OMEGA laser facility for extended x-ray absorption fine structure experiments. Review of Scientific Instruments, 2020, 91, 086101.	0.6	7
18	Probing the Solid Phase of Noble Metal Copper at Terapascal Conditions. Physical Review Letters, 2020, 124, 015701.	2.9	43

#	Article	IF	Citations
19	Recreating Giants Impacts in the Laboratory: Shock Compression of Bridgmanite to 14 Mbar. Geophysical Research Letters, 2020, 47, e2019GL085476.	1.5	19
20	X-ray diffraction at the National Ignition Facility. Review of Scientific Instruments, 2020, 91, 043902.	0.6	42
21	Optimized continuum x-ray emission from laser-generated plasma. Applied Physics Letters, 2020, 117, .	1.5	12
22	Measurement of Body-Centered Cubic Gold and Melting under Shock Compression. Physical Review Letters, 2019, 123, 045701.	2.9	67
23	Nanosecond X-ray diffraction of shock-compressed superionic water ice. Nature, 2019, 569, 251-255.	13.7	215
24	Developing quartz and molybdenum as impedance-matching standards in the 100-Mbar regime. Physical Review B, 2019, 99, .	1.1	15
25	Equation of state of boron nitride combining computation, modeling, and experiment. Physical Review B, 2019, 99, .	1.1	28
26	Optimized x-ray sources for x-ray diffraction measurements at the Omega Laser Facility. Review of Scientific Instruments, 2019, 90, 125113.	0.6	25
27	Coordination changes in liquid tin under shock compression determined using in situ femtosecond x-ray diffraction. Applied Physics Letters, 2019, 115, .	1.5	22
28	Measuring the shock impedance mismatch between high-density carbon and deuterium at the National Ignition Facility. Physical Review B, 2018, 97, .	1.1	21
29	Crystal structure and equation of state of Fe-Si alloys at super-Earth core conditions. Science Advances, 2018, 4, eaao5864.	4.7	56
30	Experimental evidence for superionic water ice using shock compression. Nature Physics, 2018, 14, 297-302.	6.5	165
31	X-ray spectrometer throughput model for (selected) flat Bragg crystal spectrometers on laser plasma facilities. Review of Scientific Instruments, 2018, 89, 10F119.	0.6	13
32	Developing a high-flux, high-energy continuum backlighter for extended x-ray absorption fine structure measurements at the National Ignition Facility. Review of Scientific Instruments, 2018, 89, 10F114.	0.6	20
33	A new toroidal x-ray crystal spectrometer for the diagnosis of high energy density plasmas at the National Ignition Facility. Review of Scientific Instruments, 2018, 89, 10F118.	0.6	9
34	X-ray diffraction of ramp-compressed aluminum to 475â€‰GPa. Physics of Plasmas, 2018, 25, .	0.7	17
35	Measurement of Body-Centered-Cubic Aluminum at 475ÂGPa. Physical Review Letters, 2017, 119, 175702.	2.9	37
36	Shock equation of state of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>LiH</mml:mi><mml:mprescripts /><mml:none /><mml:mn>6</mml:mn></mml:mmultiscripts></mml:math> to 1.1 TPa. Physical Review B, 2017, 96, .	1.1	11

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37	X-ray source development for EXAFS measurements on the National Ignition Facility. Review of Scientific Instruments, 2017, 88, 083907.	0.6	22
38	Hydrodynamic growth experiments with the 3-D, â€œnative-roughnessâ€•modulations on NIF. Journal of Physics: Conference Series, 2016, 717, 012052.	0.3	3
39	Laser shock XAFS studies at OMEGA facility. High Pressure Research, 2016, 36, 303-314.	0.4	14
40	X-ray diffraction of molybdenum under ramp compression to 1 TPa. Physical Review B, 2016, 94, .	1.1	33
41	X-ray diffraction of molybdenum under shock compression to 450 GPa. Physical Review B, 2015, 92, .	1.1	38
42	Lattice-level observation of the elastic-to-plastic relaxation process with subnanosecond resolution in shock-compressed Ta using time-resolvedin situLaue diffraction. Physical Review B, 2015, 92, .	1.1	27
43	X-Ray Diffraction of Solid Tin to 1.2ÂTPa. Physical Review Letters, 2015, 115, 075502.	2.9	52
44	Analysis of laser shock experiments on precompressed samples using a quartz reference and application to warm dense hydrogen and helium. Journal of Applied Physics, 2015, 118, .	1.1	69
45	Single photon energy dispersive x-ray diffraction. Review of Scientific Instruments, 2014, 85, 033906.	0.6	11
46	Ramp compression of magnesium oxide to 234 GPa. Journal of Physics: Conference Series, 2014, 500, 062002.	0.3	4
47	Solid Iron Compressed Up to 560 GPa. Physical Review Letters, 2013, 111, 065501.	2.9	137
48	A platform for x-ray absorption fine structure study of dynamically compressed materials above 1 Mbar. Review of Scientific Instruments, 2013, 84, 123105.	0.6	25
49	Experimental evidence for a phase transition in magnesium oxide at exoplanet pressures. Nature Geoscience, 2013, 6, 926-929.	5.4	170
50	Pressure-induced transformations in amorphous Si-Ge alloy. Physical Review B, 2012, 85, .	1.1	9
51	Powder diffraction from solids in the terapascal regime. Review of Scientific Instruments, 2012, 83, 113904.	0.6	84
52	Pressure effects on icosahedral short range order in undercooled copper. Solid State Sciences, 2010, 12, 179-182.	1.5	1
53	Combination of optical and X-ray techniques in the study of amorphous semiconductors under high pressure: an upgrade setup for combined XAS and XRD measurements. High Pressure Research, 2010, 30, 28-34.	0.4	10
54	Pressure-induced phase transitions in amorphous and metastable crystalline germanium by Raman scattering, x-ray spectroscopy, andab initiocalculations. Physical Review B, 2009, 80, .	1.1	42

#	Article	IF	Citations
55	Amorphous germanium under high-pressure conditions. High Pressure Research, 2009, 29, 103-107.	0.4	5
56	Local structure of liquid and undercooled liquid Cu probed by x-ray absorption spectroscopy.. Journal of Physics: Conference Series, 2008, 121, 042009.	0.3	3
57	Interplay between morphology and metallization in amorphous-amorphous transitions. Physical Review B, 2008, 78, .	1.1	31