Franklin Dollar

List of Publications by Year
in descending order

75	2,752	257450 24	175258 52
papers	citations	h-index	g-index

79	79	79	2811
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bright spatially coherent synchrotron X-rays from a table-top source. Nature Physics, 2010, 6, 980-983.	16.7	392
2	Non-coalescence of oppositely charged drops. Nature, 2009, 461, 377-380.	27.8	235
3	Bright circularly polarized soft X-ray high harmonics for X-ray magnetic circular dichroism. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14206-14211.	7.1	235
4	Non-collinear generation of angularly isolated circularly polarized high harmonics. Nature Photonics, 2015, 9, 743-750.	31.4	216
5	Ultraviolet surprise: Efficient soft x-ray high-harmonic generation in multiply ionized plasmas. Science, 2015, 350, 1225-1231.	12.6	165
6	Strong-field ionization with two-color circularly polarized laser fields. Physical Review A, 2015, 91, .	2.5	124
7	X-ray phase contrast imaging of biological specimens with femtosecond pulses of betatron radiation from a compact laser plasma wakefield accelerator. Applied Physics Letters, 2011, 99, .	3.3	118
8	Generation of bright isolated attosecond soft X-ray pulses driven by multicycle midinfrared lasers. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2361-7.	7.1	116
9	Controlling Nonsequential Double Ionization in Two-Color Circularly Polarized Femtosecond Laser Fields. Physical Review Letters, 2016, 117, 133201.	7.8	104
10	Controlling electron-ion rescattering in two-color circularly polarized femtosecond laser fields. Physical Review A, 2016, 93, .	2.5	100
11	Finite Spot Effects on Radiation Pressure Acceleration from Intense High-Contrast Laser Interactions with Thin Targets. Physical Review Letters, 2012, 108, 175005.	7.8	76
12	Scaling High-Order Harmonic Generation from Laser-Solid Interactions to Ultrahigh Intensity. Physical Review Letters, 2013, 110, 175002.	7.8	73
13	Characterization of transverse beam emittance of electrons from a laser-plasma wakefield accelerator in the bubble regime using betatron x-ray radiation. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	63
14	Developments in realistic design for aperiodic Mo/Si multilayer mirrors. Optics Express, 2006, 14, 10073.	3.4	61
15	Ultrafast Electron Radiography of Magnetic Fields in High-Intensity Laser-Solid Interactions. Physical Review Letters, 2013, 110, 015003.	7.8	61
16	Energetic neutron beams generated from femtosecond laser plasma interactions. Applied Physics Letters, 2013, 102, .	3.3	44
17	Observation and Control of Shock Waves in Individual Nanoplasmas. Physical Review Letters, 2014, 112, 115004.	7.8	43
18	Particle-in-cell simulation of x-ray wakefield acceleration and betatron radiation in nanotubes. Physical Review Accelerators and Beams, 2016, 19, .	1.6	38

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19	Towards laboratory produced relativistic electronâ€“positron pair plasmas. High Energy Density Physics, 2011, 7, 225-229.	1.5	36
20	Control of Energy Spread and Dark Current in Proton and Ion Beams Generated in High-Contrast Laser Solid Interactions. Physical Review Letters, 2011, 107, 065003.	7.8	33
21	The unexpected role of evolving longitudinal electric fields in generating energetic electrons in relativistically transparent plasmas. New Journal of Physics, 2018, 20, 093024.	2.9	33
22	Mapping Nanoscale Absorption of Femtosecond Laser Pulses Using Plasma Explosion Imaging. ACS Nano, 2014, 8, 8810-8818.	14.6	30
23	Focusability of laser pulses at petawatt transport intensities in thin-film compression. Journal of the Optical Society of America B: Optical Physics, 2019, 36, A28.	2.1	29
24	Development and testing of EUV multilayer coatings for the atmospheric imaging assembly instrument aboard the Solar Dynamics Observatory. , 2005, , .		27
25	Stimulated Raman Side Scattering in Laser Wakefield Acceleration. Physical Review Letters, 2010, 105, 034801.	7.8	24
26	Dominant deuteron acceleration with a high-intensity laser for isotope production and neutron generation. Applied Physics Letters, 2013, 102, 191117.	3.3	24
27	Materials Properties and Solvated Electron Dynamics of Isolated Nanoparticles and Nanodroplets Probed with Ultrafast Extreme Ultraviolet Beams. Journal of Physical Chemistry Letters, 2016, 7, 609-615.	4.6	23
28	High contrast ion acceleration at intensities exceeding 1021â€‰Wcmâ”2. Physics of Plasmas, 2013, 20, .	1.9	21
29	Millijoule few-cycle pulses from staged compression for strong and high field science. Optics Express, 2021, 29, 9123.	3.4	19
30	Comparative study of betatron radiation from laser-wakefield and direct-laser accelerated bunches of relativistic electrons. Proceedings of SPIE, 2009, , .	0.8	17
31	High resolution bremsstrahlung and fast electron characterization in ultrafast intense laserâ€“solid interactions. New Journal of Physics, 2013, 15, 123038.	2.9	17
32	Phase matching of noncollinear sum and difference frequency high harmonic generation above and below the critical ionization level. Optics Express, 2017, 25, 10126.	3.4	17
33	Wakefield in solid state plasma with the ionic lattice force. Physics of Plasmas, 2018, 25, .	1.9	16
34	Polarization-Dependent Self-Injection by Above Threshold Ionization Heating in a Laser Wakefield Accelerator. Physical Review Letters, 2020, 124, 114801.	7.8	11
35	Experimental laser wakefield acceleration scalings exceeding 100â€‰TW. Physics of Plasmas, 2012, 19, 063113.	1.9	9
36	In-band and out-of-band reflectance calibrations of the EUV multilayer mirrors of the atmospheric imaging assembly instrument aboard the Solar Dynamics Observatory. Proceedings of SPIE, 2012, , .	0.8	8

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37	High-intensity laser-driven proton acceleration enhancement from hydrogen containing ultrathin targets. Applied Physics Letters, 2013, 103, 141117.	3.3	8
38	Multilayers for next-generation x-ray sources. , 2007, , .		7
39	Demonstration of thin film compression for short-pulse X-ray generation. International Journal of Modern Physics A, 2019, 34, 1943015.	1.5	7
40	Energetic electron and ion generation from interactions of intense laser pulses with laser machined conical targets. Nuclear Fusion, 2010, 50, 055006.	3.5	6
41	Enhanced laser absorption from radiation pressure in intense laser plasma interactions. New Journal of Physics, 2017, 19, 063014.	2.9	6
42	High-Intensity Laser Triggered Proton Acceleration from Ultrathin Foils. Contributions To Plasma Physics, 2013, 53, 161-164.	1.1	5
43	The effects of laser polarization and wavelength on injection dynamics of a laser wakefield accelerator. Physics of Plasmas, 2021, 28, .	1.9	5
44	K-shell spectroscopy of Au plasma generated with a short-pulse laser¹This article is part of a Special Issue on the 10th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas.. Canadian Journal of Physics, 2011, 89, 647-651.	1.1	4
45	Ultrahigh-Efficiency High Harmonic Generation Driven by UV Lasers. , 2013, , .		4
46	Time dependent Doppler shifts in high-order harmonic generation in intense laser interactions with solid density plasma and frequency chirped pulses. Physics of Plasmas, 2015, 22, .	1.9	4
47	Synchrotron x-ray radiation from laser wakefield accelerated electron beams in a plasma channel. Journal of Physics: Conference Series, 2010, 244, 042026.	0.4	3
48	Narrow Energy Spread Protons and Ions from High-Intensity, High-Contrast Laser Solid Target Interactions. , 2010, , .		3
49	On the properties of synchrotron-like X-ray emission from laser wakefield accelerated electron beams. Physics of Plasmas, 2018, 25, 043104.	1.9	3
50	X-ray laser wakefield acceleration in a nanotube. International Journal of Modern Physics A, 2019, 34, 1943011.	1.5	3
51	Laser wakefield acceleration experiments at the University of Michigan. , 2009, , .		2
52	Relativistic short-pulse high harmonic generation at 1.3 and 2.1 Î¼m wavelengths. New Journal of Physics, 2019, 21, 043052.	2.9	2
53	Substrate smoothing for high-temperature condenser operation in EUVL source environments. , 2005, , .		1
54	Laser Wakefield Acceleration Experiments Using HERCULES Laser. , 2009, , .		1

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55	Synchrotron Radiation from a Laser Plasma Accelerator in the Bubble Regime. , 2010, , .		1
56	Ultra-intense laser neutron generation through efficient deuteron acceleration. Proceedings of SPIE, 2013, , .	0.8	1
57	On electron betatron motion and electron injection in laser wakefield accelerators. Plasma Physics and Controlled Fusion, 2014, 56, 084009.	2.1	1
58	Bright Isolated Attosecond Soft X-Ray Pulses. Springer Proceedings in Physics, 2015, , 95-98.	0.2	1
59	Demonstration of Thin Film Compression for Short-Pulse X-ray Generation. , 2020, , .		1
60	Control of proton energy in ultra-high intensity laser-matter interaction. Journal of Physics: Conference Series, 2010, 244, 042025.	0.4	0
61	Effects of Ionization in a Laser Wakefield Accelerator. , 2010, , .		0
62	X-ray phase contrast imaging of biological specimens with tabletop synchrotron radiation. Nature Precedings, 2011, , .	0.1	0
63	Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers. , 2014, , .		0
64	Bright High Order Harmonic Generation in a Multiply Ionized Plasma up to the Water Window. , 2014, , .		0
65	Theory of time-gated phase-matching for isolated attosecond soft x-ray pulse generation using mid-infrared lasers. , 2014, , .		0
66	Coherent Betatron Radiation from Laser-Wakefield Accelerated Bunches of Monoenergetic Electrons. , 2009, , .		0
67	MO-EE-A2-05: Experimental Implementation of the Directed Coulomb Explosion Regime of Laser-Proton Acceleration. Medical Physics, 2009, 36, 2703-2703.	3.0	0
68	SU-GG-T-462: Observation of Quasi-Monoenergetic Laser Accelerated Proton and Carbon Beams. Medical Physics, 2010, 37, 3293-3293.	3.0	0
69	High-aspect-ratio Plasma Target for Raman Backscattering in Exawatt Laser Development. , 2012, , .		0
70	Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers. , 2014, , .		0
71	Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers. , 2014, , .		0
72	Direct Observation of Rescattering from Strong Field Ionization by Two-Color Circularly Polarized Laser Fields. , 2015, , .		0

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73	Bright Circularly Polarized Soft X-ray Harmonics for Static and Dynamic X-ray Magnetic Circular Dichroism. , 2016, , .		0
74	Phase Matching of Noncollinear Sum and Difference Frequency High Harmonic Generation. , 2017, , .		0
75	X-ray Laser Wakefield Acceleration in a Nanotube. , 2020, , .		0