Prashant Kumar Singh

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8975651/publications.pdf

Version: 2024-02-01

40 papers	582 citations	687363 13 h-index	642732 23 g-index
40 all docs	40 docs citations	40 times ranked	768 citing authors

#	Article	IF	Citations
1	Laser Acceleration of Highly Energetic Carbon Ions Using a Double-Layer Target Composed of Slightly Underdense Plasma and Ultrathin Foil. Physical Review Letters, 2019, 122, 014803.	7.8	84
2	Highly enhanced hard x-ray emission from oriented metal nanorod arrays excited by intense femtosecond laser pulses. Physical Review B, 2011, 83, .	3.2	63
3	Macroscopic Transport of Mega-ampere Electron Currents in Aligned Carbon-Nanotube Arrays. Physical Review Letters, 2012, 108, 235005.	7.8	45
4	CR-39 track detector for multi-MeV ion spectroscopy. Scientific Reports, 2017, 7, 2152.	3.3	44
5	Magnetic turbulence in a table-top laser-plasma relevant to astrophysical scenarios. Nature Communications, 2017, 8, 15970.	12.8	40
6	Transition from Coherent to Stochastic electron heating in ultrashort relativistic laser interaction with structured targets. Scientific Reports, 2017, 7, 1479.	3.3	29
7	Terahertz Acoustics in Hot Dense Laser Plasmas. Physical Review Letters, 2015, 114, 115001.	7.8	23
8	Experimental evaluation of the response of micro-channel plate detector to ions with 10s of MeV energies. Review of Scientific Instruments, 2016, 87, 083301.	1.3	23
9	Contrasting levels of absorption of intense femtosecond laser pulses by solids. Scientific Reports, 2016, 5, 17870.	3.3	21
10	Direct observation of ultrafast surface transport of laser-driven fast electrons in a solid target. Physics of Plasmas, 2013, 20, .	1.9	18
11	Proof-of-Principle Experiment for Nanoparticle-Assisted Laser Wakefield Electron Acceleration. Physical Review Applied, 2019, 12, .	3.8	16
12	A diagnostic for micrometer sensitive positioning of solid targets in intense laser-matter interaction. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 363-366.	1.6	14
13	Ultrafast dynamics of a near-solid-density layer in an intense femtosecond laser-excited plasma. Physics of Plasmas, 2014, 21, .	1.9	13
14	High-resolution measurements of the spatial and temporal evolution of megagauss magnetic fields created in intense short-pulse laser-plasma interactions. Review of Scientific Instruments, 2014, 85, 013505.	1.3	13
15	Silicon nanowire based high brightness, pulsed relativistic electron source. APL Photonics, 2017, 2, .	5.7	11
16	A bright point source of ultrashort hard x-ray pulses using biological cells. Optics Express, 2012, 20, 5754.	3.4	10
17	Efficient generation and guiding of megaampere relativistic electron current by silicon nanowires. Applied Physics Letters, 2012, 100, 244104.	3.3	9
18	Controlling femtosecond-laser-driven shock-waves in hot, dense plasma. Physics of Plasmas, 2017, 24, 072702.	1.9	9

#	Article	IF	Citations
19	Ion acceleration in electrostatic field of charged cavity created by ultra-short laser pulses of 1020â€“1021â€‰W/cm2. Physics of Plasmas, 2017, 24, .	1.9	8
20	Mapping the Damping Dynamics of Mega-Ampere Electron Pulses Inside a Solid. Physical Review Letters, 2018, 120, 065001.	7.8	8
21	Enhanced transport of relativistic electrons through nanochannels. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	7
22	Ultrafast optics of solid density plasma using multicolor probes. Optics Express, 2014, 22, 22320.	3.4	7
23	Intense femtosecond laser driven collimated fast electron transport in a dielectric mediumâ€“role of intensity contrast. Optics Express, 2016, 24, 28419.	3.4	7
24	Micron-scale mapping of megagauss magnetic fields using optical polarimetry to probe hot electron transport in petawatt-class laser-solid interactions. Scientific Reports, 2017, 7, 8347.	3.3	7
25	Controlling two plasmon decay instability in intense femtosecond laser driven plasmas. Physics of Plasmas, 2015, 22, .	1.9	6
26	Enhanced x-ray emission from nano-particle doped bacteria. Optics Express, 2015, 23, 17909.	3.4	6
27	Ultrashort PW laser pulse interaction with target and ion acceleration. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 156-159.	1.6	6
28	Spatiotemporal characteristics of high-density gas jet and absolute determination of size and density of gas clusters. Scientific Reports, 2020, 10, 12973.	3.3	5
29	Proton acceleration through a charged cavity created by ultraintense laser pulse. Physics of Plasmas, 2019, 26, .	1.9	4
30	Two-plasmon-decay induced fast electrons in intense femtosecond laserâ€“solid interactions. Physics of Plasmas, 2020, 27, .	1.9	4
31	Micro-optics for ultra-intense lasers. AIP Advances, 2021, 11, 035214.	1.3	4
32	Particle resonances and trapping of direct laser acceleration in a laser-plasma channel. Physical Review Accelerators and Beams, 2021, 24, .	1.6	4
33	Efficient transport of femtosecond laser-generated fast electrons in a millimeter thick graphite. Applied Physics Letters, 2016, 109, .	3.3	3
34	Bunching of light ions driven by heavy-ion front in multispecies ion beam accelerated by laser. Physical Review E, 2020, 102, 023212.	2.1	3
35	Calibration of micro-channel plate detector in a Thomson spectrometer for protons and carbon ions with energies below 1 MeV. Review of Scientific Instruments, 2022, 93, .	1.3	3
36	Surface modulation and back reflection from foil targets irradiated by a Petawatt femtosecond laser pulse at oblique incidence. Optics Express, 2016, 24, 28104.	3.4	2

#	Article	IF	Citations
37	Intensified proton and carbon ion flux from femtosecond laser driven plasma source. Physics of Plasmas, 2018, 25, 113113.	1.9	2
38	Formation and evolution of post-solitons following a high intensity laser-plasma interaction with a low-density foam target. Plasma Physics and Controlled Fusion, 2021, 63, 074001.	2.1	1
39	Probing ultrafast dynamics in a solid-density plasma created by an intense femtosecond laser. Journal of Physics: Conference Series, 2016, 688, 012001.	0.4	0
40	Enhanced x-ray emission from bacteria. , 2012, , .		0