

Prashant Kumar Singh

List of Publications by Year in descending order

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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	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
2	Micro-optics for ultra-intense lasers. AIP Advances, 2021, 11, 035214.	1.3	4
3	Particle resonances and trapping of direct laser acceleration in a laser-plasma channel. Physical Review Accelerators and Beams, 2021, 24, .	1.6	4
4	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
5	Two-plasmon-decay induced fast electrons in intense femtosecond laser–solid interactions. Physics of Plasmas, 2020, 27, .	1.9	4
6	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
7	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
8	Proof-of-Principle Experiment for Nanoparticle-Assisted Laser Wakefield Electron Acceleration. Physical Review Applied, 2019, 12, .	3.8	16
9	Proton acceleration through a charged cavity created by ultraintense laser pulse. Physics of Plasmas, 2019, 26, .	1.9	4
10	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
11	Mapping the Damping Dynamics of Mega-Ampere Electron Pulses Inside a Solid. Physical Review Letters, 2018, 120, 065001.	7.8	8
12	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
13	Intensified proton and carbon ion flux from femtosecond laser driven plasma source. Physics of Plasmas, 2018, 25, 113113.	1.9	2
14	Ion acceleration in electrostatic field of charged cavity created by ultra-short laser pulses of 10^{20} – 10^{21} W/cm ² . Physics of Plasmas, 2017, 24, .	1.9	8
15	Silicon nanowire based high brightness, pulsed relativistic electron source. APL Photonics, 2017, 2, .	5.7	11
16	CR-39 track detector for multi-MeV ion spectroscopy. Scientific Reports, 2017, 7, 2152.	3.3	44
17	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
18	Controlling femtosecond-laser-driven shock-waves in hot, dense plasma. Physics of Plasmas, 2017, 24, 072702.	1.9	9

#	ARTICLE	IF	CITATIONS
19	Magnetic turbulence in a table-top laser-plasma relevant to astrophysical scenarios. <i>Nature Communications</i> , 2017, 8, 15970.	12.8	40
20	Transition from Coherent to Stochastic electron heating in ultrashort relativistic laser interaction with structured targets. <i>Scientific Reports</i> , 2017, 7, 1479.	3.3	29
21	Probing ultrafast dynamics in a solid-density plasma created by an intense femtosecond laser. <i>Journal of Physics: Conference Series</i> , 2016, 688, 012001.	0.4	0
22	Surface modulation and back reflection from foil targets irradiated by a Petawatt femtosecond laser pulse at oblique incidence. <i>Optics Express</i> , 2016, 24, 28104.	3.4	2
23	Intense femtosecond laser driven collimated fast electron transport in a dielectric medium—role of intensity contrast. <i>Optics Express</i> , 2016, 24, 28419.	3.4	7
24	Efficient transport of femtosecond laser-generated fast electrons in a millimeter thick graphite. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	3
25	Experimental evaluation of the response of micro-channel plate detector to ions with 10s of MeV energies. <i>Review of Scientific Instruments</i> , 2016, 87, 083301.	1.3	23
26	Contrasting levels of absorption of intense femtosecond laser pulses by solids. <i>Scientific Reports</i> , 2016, 5, 17870.	3.3	21
27	A diagnostic for micrometer sensitive positioning of solid targets in intense laser-matter interaction. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 829, 363-366.	1.6	14
28	Controlling two plasmon decay instability in intense femtosecond laser driven plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	6
29	Terahertz Acoustics in Hot Dense Laser Plasmas. <i>Physical Review Letters</i> , 2015, 114, 115001.	7.8	23
30	Enhanced x-ray emission from nano-particle doped bacteria. <i>Optics Express</i> , 2015, 23, 17909.	3.4	6
31	Ultrafast optics of solid density plasma using multicolor probes. <i>Optics Express</i> , 2014, 22, 22320.	3.4	7
32	Ultrafast dynamics of a near-solid-density layer in an intense femtosecond laser-excited plasma. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	13
33	High-resolution measurements of the spatial and temporal evolution of megagauss magnetic fields created in intense short-pulse laser-plasma interactions. <i>Review of Scientific Instruments</i> , 2014, 85, 013505.	1.3	13
34	Direct observation of ultrafast surface transport of laser-driven fast electrons in a solid target. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	18
35	Enhanced transport of relativistic electrons through nanochannels. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2013, 16, .	1.8	7
36	A bright point source of ultrashort hard x-ray pulses using biological cells. <i>Optics Express</i> , 2012, 20, 5754.	3.4	10

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37	Macroscopic Transport of Mega-ampere Electron Currents in Aligned Carbon-Nanotube Arrays. Physical Review Letters, 2012, 108, 235005.	7.8	45
38	Efficient generation and guiding of megaampere relativistic electron current by silicon nanowires. Applied Physics Letters, 2012, 100, 244104.	3.3	9
39	Enhanced x-ray emission from bacteria. , 2012, , .		0
40	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