

Jiri Ullschmied

List of Publications by Year in descending order

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70
papers

1,610
citations

304743

22
h-index

302126

39
g-index

70
all docs

70
docs citations

70
times ranked

966
citing authors

#	ARTICLE	IF	CITATIONS
1	The Prague Asterix Laser System. <i>Physics of Plasmas</i> , 2001, 8, 2495-2501.	1.9	259
2	Fast ignition by laser driven particle beams of very high intensity. <i>Physics of Plasmas</i> , 2007, 14, 072701.	1.9	101
3	Full characterization of laser-accelerated ion beams using Faraday cup, silicon carbide, and single-crystal diamond detectors. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	68
4	Self-focusing effect in Au-target induced by high power pulsed laser at PALS. <i>Laser and Particle Beams</i> , 2008, 26, 379-387.	1.0	67
5	High performance SiC detectors for MeV ion beams generated by intense pulsed laser plasmas. <i>Journal of Materials Research</i> , 2013, 28, 87-93.	2.6	64
6	Stable dense plasma jets produced at laser power densities around $10^{14} \text{W} \cdot \text{cm}^{-2}$. <i>Physics of Plasmas</i> , 2006, 13, 062704.	1.9	61
7	Generation of high pressure shocks relevant to the shock-ignition intensity regime. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	55
8	Plasma jets produced in a single laser beam interaction with a planar target. <i>Physics of Plasmas</i> , 2006, 13, 062701.	1.9	45
9	Thomson parabola spectrometry for gold laser-generated plasmas. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	41
10	Measurement of the target current by inductive probe during laser interaction on terawatt laser system PALS. <i>Review of Scientific Instruments</i> , 2014, 85, 103507.	1.3	41
11	Self-focusing in processes of laser generation of highly-charged and high-energy heavy ions. <i>Laser and Particle Beams</i> , 2006, 24, 175-179.	1.0	37
12	Angular distributions of ions emitted from laser plasma produced at various irradiation angles and laser intensities. <i>Laser and Particle Beams</i> , 2008, 26, 555-565.	1.0	37
13	Highly efficient accelerator of dense matter using laser-induced cavity pressure acceleration. <i>Physics of Plasmas</i> , 2012, 19, 053105.	1.9	36
14	Spectral and temporal characteristics of target current and electromagnetic pulse induced by nanosecond laser ablation. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 065007.	2.1	36
15	Highly efficient acceleration and collimation of high-density plasma using laser-induced cavity pressure. <i>Applied Physics Letters</i> , 2010, 96, 251502.	3.3	35
16	Proton Acceleration Driven by a Nanosecond Laser from a Cryogenic Thin Solid-Hydrogen Ribbon. <i>Physical Review X</i> , 2016, 6, .	8.9	34
17	Laser-driven ablation through fast electrons in PALS-experiment at the laser radiation intensity of $1 \times 10^{15} \text{PW/cm}^2$. <i>Laser and Particle Beams</i> , 2014, 32, 177-195.	1.0	32
18	Recent results from experimental studies on laser-plasma coupling in a shock ignition relevant regime. <i>Plasma Physics and Controlled Fusion</i> , 2013, 55, 124045.	2.1	30

#	ARTICLE	IF	CITATIONS
19	Studies of supersonic, radiative plasma jet interaction with gases at the Prague Asterix Laser System facility. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	29
20	Electromagnetic pulse (EMP) radiation by laser interaction with a solid H2 ribbon. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	29
21	Space-time resolved measurements of spontaneous magnetic fields in laser-produced plasma. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	26
22	Photoionized plasmas induced in neon with extreme ultraviolet and soft X-ray pulses produced using low and high energy laser systems. <i>Physics of Plasmas</i> , 2015, 22, 043302.	1.9	23
23	Pre-plasma effect on energy transfer from laser beam to shock wave generated in solid target. <i>Physics of Plasmas</i> , 2014, 21, 012708.	1.9	22
24	Analysis of processes participating during intense iodine-laser-beam interactions with laser-produced plasmas. <i>Radiation Effects and Defects in Solids</i> , 2010, 165, 463-471.	1.2	21
25	Measurement of electromagnetic pulses generated during interactions of high power lasers with solid targets. <i>Journal of Instrumentation</i> , 2016, 11, C06004-C06004.	1.2	19
26	Laboratory modeling of supersonic radiative jets propagation in plasmas and their scaling to astrophysical conditions. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 124056.	2.1	18
27	Observation of repetitive bursts in emission of fast ions and neutrons in sub-nanosecond laser-solid experiments. <i>Laser and Particle Beams</i> , 2013, 31, 395-401.	1.0	18
28	Pre-plasma effect on laser beam energy transfer to a dense target under conditions relevant to shock ignition. <i>Laser and Particle Beams</i> , 2015, 33, 221-236.	1.0	18
29	Kinetic magnetization by fast electrons in laser-produced plasmas at sub-relativistic intensities. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	18
30	Investigations of plasma jet interaction with ambient gases by multi-frame interferometric and X-ray pinhole camera systems. <i>Laser and Particle Beams</i> , 2009, 27, 115-122.	1.0	17
31	New high-power laser facility PALSâ€™ prospects for laserâ€™ plasma research. <i>Laser and Particle Beams</i> , 1999, 17, 179-194.	1.0	16
32	Correlation of highly charged ion and X-ray emissions from the laser-produced plasma in the presence of non-linear phenomena. <i>Radiation Effects and Defects in Solids</i> , 2005, 160, 557-566.	1.2	16
33	TNSA and ponderomotive plasma production in enriched carbon polyethylene foils. <i>Physics of Plasmas</i> , 2017, 24, 043112.	1.9	16
34	Synchronizing single-shot high-energy iodine photodissociation laser PALS and high-repetition-rate femtosecond Ti:sapphire laser system. <i>Review of Scientific Instruments</i> , 2017, 88, 045109.	1.3	16
35	Efficient neutron production from sub-nanosecond laser pulse accelerating deuterons on target front side. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	15
36	The influence of target irradiation conditions on the parameters of laser-produced plasma jets. <i>Physics of Plasmas</i> , 2007, 14, 032701.	1.9	14

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37	Particular features of the transmission of laser radiation with wavelength 0.438 μm and intensity $(3 \times 10^{14} \text{ W/cm}^2)$ through an undercritical plasma from polymer aerogels. Journal of Russian Laser Research, 2007, 28, 548-566.	0.6	14
38	Comparison of computed and measured parameters of a driver for fast capillary discharge. , 0, , .		13
39	The Effect of Pre-plasma and Self-focusing on Characteristics of Laser Produced Ions. European Physical Journal D, 2005, 55, 691-699.	0.4	13
40	Experimental studies of emission of highly charged Au-ions and of X-rays from the laser-produced plasma at high laser intensities. European Physical Journal D, 2009, 54, 487-492.	1.3	11
41	Improved generation of ion fluxes by a long laser pulse using laser-induced cavity pressure acceleration. Applied Physics Letters, 2013, 103, .	3.3	11
42	Experimental evidence of multimaterial jet formation with lasers. Physics of Plasmas, 2010, 17, .	1.9	10
43	Generation of high-energy neutrons with the 300-ps-laser system PALS. High Power Laser Science and Engineering, 2014, 2, .	4.6	10
44	High-intensity laser for Ta and Ag implantation into different substrates for plasma diagnostics. Nuclear Instruments & Methods in Physics Research B, 2015, 354, 56-59.	1.4	10
45	The PALS iodine laser-driven jets. Plasma Physics and Controlled Fusion, 2007, 49, B611-B619.	2.1	9
46	Experimental studies of interaction of intense long laser pulse with a laser-created Ta plasma. European Physical Journal D, 2006, 56, B506-B514.	0.4	7
47	Cavity pressure acceleration: An efficient laser-based method of production of high-velocity macroparticles. Applied Physics Letters, 2009, 95, .	3.3	7
48	Short-wavelength experiments on laser pulse interaction with extended pre-plasma at the PALS-installation. Laser and Particle Beams, 2016, 34, 94-108.	1.0	7
49	Enhanced efficiency of plasma acceleration in the laser-induced cavity pressure acceleration scheme. Plasma Physics and Controlled Fusion, 2015, 57, 014007.	2.1	6
50	Photoionized argon plasmas induced with intense soft x-ray and extreme ultraviolet pulses. Plasma Physics and Controlled Fusion, 2016, 58, 014009.	2.1	6
51	Wavelength dependence of laser plasma interaction related to shock ignition approach. Laser and Particle Beams, 2018, 36, 405-426.	1.0	6
52	Detection of energetic ions emitted from laser-produced plasma by means of CR39 solid state nuclear track detectors. Radiation Effects and Defects in Solids, 2008, 163, 371-379.	1.2	5
53	Numerical simulation of high current relativistic electron flow. Laser and Particle Beams, 1988, 6, 587-591.	1.0	4
54	Application of a single-crystal CVD diamond detector for simultaneous measurement of ions and X-rays from laser plasmas. Radiation Effects and Defects in Solids, 2010, 165, 481-487.	1.2	4

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55	Studies of the laser-created craters produced on solid surfaces at various experimental conditions. European Physical Journal D, 2006, 56, B542-B549.	0.4	3
56	Reversed scheme of thin foil acceleration. Applied Physics Letters, 2008, 93, 101502.	3.3	3
57	Ion emission from laser ablation of Cu and Cu98/Be2 alloy targets. Radiation Effects and Defects in Solids, 2010, 165, 488-494.	1.2	3
58	Forward and backward cavity pressure acceleration of macroparticles. Applied Physics Letters, 2011, 99, 231501.	3.3	3
59	Generation of Secondary Particles From Subnanosecond Laser Irradiation of Targets at Intensities of $10^{16} \sim 10^{17} \text{ W/cm}^2$. IEEE Transactions on Plasma Science, 2013, 41, 2819-2824.	1.3	3
60	Generation of ultra-high-pressure shocks by collision of a fast plasma projectile driven in the laser-induced cavity pressure acceleration scheme with a solid target. Physics of Plasmas, 2015, 22, 032709.	1.9	3
61	Generation of fast neutrons through deuteron acceleration at the PALS laser facility. Journal of Instrumentation, 2016, 11, C03050-C03050.	1.2	3
62	Ion energy enhancement in laser-generated plasma of metallic-doped polymers. Radiation Effects and Defects in Solids, 2008, 163, 339-347.	1.2	2
63	Experiment on laser interaction with a planar target for conditions relevant to shock ignition. Physica Scripta, 2014, T161, 014017.	2.5	2
64	Ion Beam Analysis applied to laser-generated plasmas. Journal of Instrumentation, 2016, 11, C04011-C04011.	1.2	1
65	LASER-PRODUCED IONS FOR VARIOUS APPLICATIONS. , 2004, , .		1
66	Spectroscopic determination of turbulent Langmuir fields in a REB-heated plasma. , 0, , .		0
67	Investigation Of Plasma Produced By High-Energy Low-Intensity Laser Pulses For Implantation Of Ge Ions Into Si And SiO2 Substrates. AIP Conference Proceedings, 2006, , .	0.4	0
68	Application of Resistive Bolometer to Measurement of X-Ray Radiation from Laser Plasmas. AIP Conference Proceedings, 2006, , .	0.4	0
69	Preliminary studies on fast particle diagnostics for the future fs-laser facility at PALS. Radiation Effects and Defects in Solids, 2010, 165, 419-428.	1.2	0
70	Investigation of efficiency of laser radiation energy transport into a planar massive target made of Al. , 2012, , .		0