

R Fedosejevs

List of Publications by Year in descending order

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126
papers

2,725
citations

159525

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126
all docs

126
docs citations

126
times ranked

1692
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear Thomson Scattering: a Tool for Assessing Relativistic Intensities and Beyond. , 2020, , .		0
2	Characterization of Nonlinear, Relativistic Thomson Scattering. , 2020, , .		0
3	Precision measurement of the quantum vacuum with petawatt-class lasers. , 2020, , .		0
4	Generation of high energy laser-driven electron and proton sources with the 200 TW system VEGA 2 at the Centro de Laseres Pulsados. High Power Laser Science and Engineering, 2019, 7, .	2.0	31
5	Towards an in situ, full-power gauge of the focal-volume intensity of petawatt-class lasers. Optics Express, 2019, 27, 30020.	1.7	24
6	Measurements of ionization states in warm dense aluminum with betatron radiation. Physical Review E, 2017, 95, 053208.	0.8	24
7	Collimated Propagation of Fast Electron Beams Accelerated by High-Contrast Laser Pulses in Highly Resistive Shocked Carbon. Physical Review Letters, 2017, 118, 205001.	2.9	11
8	High resolution scanning microanalysis on material surfaces using UV femtosecond laser induced breakdown spectroscopy. Optics and Lasers in Engineering, 2015, 68, 1-6.	2.0	18
9	On specular reflectivity measurements in high and low-contrast relativistic laser-plasma interactions. Physics of Plasmas, 2015, 22, 013110.	0.7	5
10	Enhanced Relativistic-Electron-Beam Energy Loss in Warm Dense Aluminum. Physical Review Letters, 2015, 114, 095004.	2.9	23
11	Single-shot ablation threshold of chromium using UV femtosecond laser pulses. Applied Physics A: Materials Science and Processing, 2014, 117, 1473-1478.	1.1	3
12	Giga-electronvolt electrons due to a transition from laser wakefield acceleration to plasma wakefield acceleration. Physics of Plasmas, 2014, 21, 123113.	0.7	34
13	Single shot depth sensitivity using femtosecond Laser Induced Breakdown Spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 92, 34-41.	1.5	24
14	Detection of buried layers in silicon devices using LIBS during hole drilling with femtosecond laser pulses. Applied Physics A: Materials Science and Processing, 2013, 111, 791-798.	1.1	15
15	Femtosecond laser plasma plume characteristics in the nanojoule ablation regime. Journal of Applied Physics, 2013, 113, .	1.1	8
16	Generation of 500â€‰MeVâ€‰1â€‰GeV energy electrons from laser wakefield acceleration via ionization induced injection using CO2 mixed in He. Applied Physics Letters, 2013, 102, .	1.5	13
17	Kirkpatrick-Baez microscope for hard X-ray imaging of fast ignition experiments. Review of Scientific Instruments, 2013, 84, 023704.	0.6	9
18	Laser wakefield generated X-ray probe for femtosecond time-resolved measurements of ionization states of warm dense aluminum. Review of Scientific Instruments, 2013, 84, 123106.	0.6	24

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19	Quasimonoenergetic electron beams from laser wakefield acceleration in pure nitrogen. Applied Physics Letters, 2012, 100, .	1.5	39
20	Comparative analysis of laser-triggered proton generation from overdense and low-density targets. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 653, 62-65.	0.7	8
21	A dual channel X-ray spectrometer for fast ignition research. Journal of Instrumentation, 2010, 5, P07008-P07008.	0.5	16
22	Experimental and theoretical study of absorption of femtosecond laser pulses in interaction with solid copper targets. Physical Review B, 2009, 79, .	1.1	61
23	Absolute characterization of laser-induced breakdown spectroscopy detection systems. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 525-535.	1.5	16
24	Particle characterization for the evaluation of the ^{181}mTa excitation yield in millijoule laser induced plasmas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 145701.	0.6	11
25	Quasi-monoenergetic electron beams generated from 7 TW laser pulses in N ₂ and He gas targets. Laser and Particle Beams, 2008, 26, 147-155.	0.4	46
26	Development of laser-induced breakdown spectroscopy for microanalysis applications. Laser and Particle Beams, 2008, 26, 95-104.	0.4	30
27	A continuous kilohertz Cu K α source produced by submillijoule femtosecond laser pulses for phase contrast imaging. Applied Physics Letters, 2008, 93, .	1.5	21
28	Wakefield Acceleration of Quasi-Monoenergetic 200 MeV Electrons in Nitrogen and Helium Gas Targets. , 2007, , .		0
29	Efficient K α x-ray source from submillijoule femtosecond laser pulses operated at kilohertz repetition rate. Review of Scientific Instruments, 2007, 78, 103502.	0.6	27
30	Energetic electrons produced in the interaction of a kiloHertz femtosecond laser with tantalum targets. Journal of Modern Optics, 2007, 54, 2585-2593.	0.6	2
31	Mechanism for femtosecond laser pulse patterning of self-assembled monolayers on gold-coated substrates. Journal of Physics: Conference Series, 2007, 59, 428-431.	0.3	11
32	Nanomilling surfaces using near-threshold femtosecond laser pulses. Journal of Physics: Conference Series, 2007, 59, 591-594.	0.3	10
33	Quantitative emission from femtosecond microplasmas for laser-induced breakdown spectroscopy. Journal of Physics: Conference Series, 2007, 59, 328-332.	0.3	4
34	Micro-LIBS. , 2007, , 173-196.		6
35	Quantum dot saturable absorber for passive mode locking of Nd:YVO ₄ lasers at 1064 nm. Applied Physics B: Lasers and Optics, 2007, 87, 671-675.	1.1	12
36	GaAs based semiconductor quantum dot saturable absorber mirror grown by molecular beam epitaxy. , 2006, 6343, 832.		3

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37	Detection and Mapping of Latent Fingerprints by Laser-Induced Breakdown Spectroscopy. Applied Spectroscopy, 2006, 60, 1322-1327.	1.2	47
38	Electron radiography using hot electron jets from sub-millijoule femtosecond laser pulses. Applied Physics B: Lasers and Optics, 2006, 83, 521-525.	1.1	7
39	Absolute energy distribution of hard x rays produced in the interaction of a kilohertz femtosecond laser with tantalum targets. Review of Scientific Instruments, 2006, 77, 093302.	0.6	7
40	Distinctive features of photoionized plasma from short x-ray-pulse interaction with gaseous medium. Physics of Plasmas, 2006, 13, 013101.	0.7	11
41	Single and multiple shot near-infrared femtosecond laser pulse ablation thresholds of copper. Applied Physics A: Materials Science and Processing, 2005, 81, 729-735.	1.1	98
42	Images of femtosecond laser plasma plume expansion into background air. IEEE Transactions on Plasma Science, 2005, 33, 482-483.	0.6	11
43	Effect of ambient air pressure on debris redeposition during laser ablation of glass. Journal of Applied Physics, 2005, 98, 113520.	1.1	31
44	Self-Organization of a Plasma due to 3D Evolution of the Weibel Instability. Physical Review Letters, 2004, 93, 215004.	2.9	97
45	Comparative study of laser-induced plasma emission from microjoule picosecond and nanosecond KrF-laser pulses. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2003, 58, 497-510.	1.5	57
46	Ablative generation of surface acoustic waves in aluminum using ultraviolet laser pulses. Journal of Applied Physics, 2002, 92, 564-571.	1.1	3
47	Laser-Induced Breakdown Spectroscopy for Microanalysis Using Submillijoule UV Laser Pulses. Applied Spectroscopy, 2002, 56, 689-698.	1.2	43
48	Production of porous carbon thin films by pulsed laser deposition. Thin Solid Films, 1999, 350, 49-52.	0.8	65
49	Observation of Raman scattering and hard X-rays in short pulse laser interaction with high density hydrogen gas. Optics Communications, 1998, 146, 363-370.	1.0	19
50	Onset of relativistic self-focusing in high density gas jet targets. Physical Review E, 1997, 56, 4615-4639.	0.8	43
51	Guiding and confinement of a laser produced plasma by a curved magnetic field. Applied Physics Letters, 1997, 70, 1953-1955.	1.5	13
52	Particle emission debris from a KrF laser "plasma x-ray source. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 1973-1980.	0.9	21
53	Vaporization of aluminum by 50 ps KrF laser pulses. Journal of Applied Physics, 1996, 80, 509-512.	1.1	6
54	Ionization-induced blue shift of KrF laser pulses in an underdense plasma. Physical Review E, 1996, 54, 2166-2169.	0.8	4

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55	Single shot charge analyzer for laser-produced plasma studies. Review of Scientific Instruments, 1995, 66, 148-153.	0.6	0
56	Density measurements of a high-density pulsed gas jet for laser-plasma interaction studies. Measurement Science and Technology, 1994, 5, 1197-1201.	1.4	26
57	Dependence of keV x-ray generation on the temporal and spatial separation of two KrF laser pulses. Journal of Applied Physics, 1994, 76, 5047-5053.	1.1	1
58	Melting and damage of aluminum surfaces by 80 ps KrF laser pulses. Optics Communications, 1994, 111, 360-369.	1.0	11
59	Numerical simulations of charge state distribution from a KrF laser-produced plasma. Physics of Fluids B, 1993, 5, 4115-4122.	1.7	4
60	keV x-ray production using 50 mJ KrF laser produced plasmas at 1 and 100 ps. Journal of Applied Physics, 1993, 74, 3712-3723.	1.1	17
61	Experimental study of charge state distribution from KrF and ruby laser-produced plasmas. Physics of Fluids B, 1993, 5, 3357-3368.	1.7	9
62	KeV X-ray generation from picosecond KrF laser-produced plasmas. , 1993, , .		0
63	KrF laser-plasma interaction experiments with ns and ps pulses. Laser and Particle Beams, 1992, 10, 661-675.	0.4	0
64	Experimental investigation of radiation heat waves driven by laser-induced Planck radiation. Physical Review A, 1992, 45, 3987-3996.	1.0	29
65	Efficient keV x-ray generation from 50 mJ KrF laser plasmas. Applied Physics Letters, 1992, 60, 1818-1820.	1.5	9
66	X-ray generation from 50 mJ, 120 ps KrF laser-produced plasmas. Journal of Applied Physics, 1992, 71, 1153-1162.	1.1	7
67	Formation of plasma columns in atmospheric pressure gases by picosecond KrF laser pulses. Optics Communications, 1992, 93, 366-377.	1.0	20
68	X-ray confinement in a gold cavity heated by 351-nm laser light. Physical Review A, 1991, 44, 8323-8333.	1.0	34
69	Absorption of subpicosecond ultraviolet laser pulses in high-density plasma. Applied Physics B, Photophysics and Laser Chemistry, 1990, 50, 79-99.	1.5	114
70	Radiation confinement in x-ray-heated cavities. Physical Review A, 1990, 42, 6188-6191.	1.0	26
71	Experimental observation of laser-induced radiation heat waves. Physical Review Letters, 1990, 65, 587-590.	2.9	84
72	Stimulated scattering from laser produced plasma. Laser and Particle Beams, 1990, 8, 153-171.	0.4	2

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73	Absorption of femtosecond laser pulses in high-density plasma. Physical Review Letters, 1990, 64, 1250-1253.	2.9	136
74	KrF laser produced plasmas. Laser and Particle Beams, 1989, 7, 393-403.	0.4	2
75	Direct formation of grating structures on silicon using KrF laser radiation. Applied Optics, 1989, 28, 1877.	2.1	6
76	Measurements of gain and absorption saturation in an electron-beam-pumped KrF amplifier. IEEE Journal of Quantum Electronics, 1989, 25, 2161-2168.	1.0	14
77	Simulation of laser-plasma interactions with atomic and radiation effects. Laser and Particle Beams, 1988, 6, 183-197.	0.4	2
78	Characterization Of X-Ray Production From Krypton Fluoride Laser-Produced Plasma. , 1988, , .		1
79	High Power KrF Laser System Employing SBS Pulse Compression. Springer Proceedings in Physics, 1988, , 216-224.	0.1	1
80	Wavelength dependence of gain from 248.2 to 248.4 nm in a KrF discharge laser. Journal Physics D: Applied Physics, 1987, 20, 912-916.	1.3	6
81	Foil calorimeter measurements of soft-X-ray energy emission from KrF-laser-produced plasmas. Journal Physics D: Applied Physics, 1987, 20, 1259-1263.	1.3	4
82	Ablation parameters in KrF laser/plasma interaction: An experimental study. Physics of Fluids, 1987, 30, 179.	1.4	15
83	Measurement of KrF-laser-plasma x-ray radiation from targets with various atomic numbers. Physical Review A, 1987, 35, 3874-3882.	1.0	35
84	Direct production of gratings on plastic substrates using 248-nm KrF laser radiation. Applied Optics, 1987, 26, 396.	2.1	55
85	Energy transport in gold coated plastic targets irradiated by a KrF laser. Optics Communications, 1987, 63, 165-170.	1.0	3
86	Fiducial monitor for an x-ray streak camera. Review of Scientific Instruments, 1986, 57, 1049-1051.	0.6	3
87	Experimental study of KrF-laser-high-Z-plasma interaction dominated by radiation transport. Physical Review A, 1986, 34, 4103-4109.	1.0	12
88	Ion expansion characteristics from a KrF-laser-produced plasma. Physical Review A, 1986, 33, 3531-3534.	1.0	12
89	Temperature and x-ray intensity scaling in KrF laser plasma interaction. Applied Physics Letters, 1986, 48, 103-105.	1.5	22
90	Preparation of planar multilayered targets for laser ablation studies. Review of Scientific Instruments, 1986, 57, 2625-2627.	0.6	4

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91	Experimental results for high intensity KrF laser/plasma interaction. Laser and Particle Beams, 1986, 4, 329-348.	0.4	10
92	Laser-Driven Shock Waves in Plexiglass. , 1986, , 535-539.		0
93	Laser-driven shock-wave studies using optical shadowgraphy. Physical Review A, 1985, 32, 3535-3546.	1.0	17
94	Stimulated Brillouin scattering of KrF laser radiation in dichlorodifluoromethane. IEEE Journal of Quantum Electronics, 1985, 21, 9-11.	1.0	15
95	Subnanosecond pulses from a KrF laser pumped SF ₆ Brillouin amplifier. IEEE Journal of Quantum Electronics, 1985, 21, 1558-1562.	1.0	60
96	Interaction of 1.3- μ m laser radiation with thin foil targets. Physical Review A, 1984, 30, 2568-2589.	1.0	54
97	Experimental study of an SF ₆ Brillouin amplifier pumped by KrF laser radiation. Applied Physics Letters, 1984, 45, 340-342.	1.5	15
98	High-efficiency stimulated Brillouin scattering of KrF laser radiation in SF ₆ . Optics Letters, 1984, 9, 405.	1.7	24
99	Phase conjugation and pulse compression of KrF-laser radiation by stimulated Raman scattering. Optics Letters, 1983, 8, 9.	1.7	42
100	Electrically triggered multimodule KrF laser system with narrow linewidth output. Review of Scientific Instruments, 1983, 54, 845-852.	0.6	23
101	Stimulated Raman backscattering in the presence of ion-acoustic fluctuations. Physics of Fluids, 1983, 26, 1071.	1.4	33
102	Narrow linewidth gain and saturation measurements of a KrF discharge laser. Journal of Applied Physics, 1983, 54, 5629-5632.	1.1	6
103	Stimulated Raman Backscatter from a Magnetically Confined Plasma Column. Physical Review Letters, 1982, 49, 371-375.	2.9	43
104	Simultaneous Brillouin and Raman Scattering in CO ₂ Laser-Plasma Interaction. Physica Scripta, 1982, T2B, 498-505.	1.2	3
105	The evolution of two-dimensional effects in fast-electron transport from high-intensity laser-plasma interactions. Journal Physics D: Applied Physics, 1982, 15, 2463-2468.	1.3	33
106	Up-conversion of subpicosecond light pulses. IEEE Journal of Quantum Electronics, 1982, 18, 2048-2056.	1.0	40
107	Dynamics of CO ₂ laser heated solenoids. Canadian Journal of Physics, 1982, 60, 1247-1256.	0.4	2
108	Active-passive mode locking of a flashlamp-pumped dye laser. IEEE Journal of Quantum Electronics, 1981, 17, 496-500.	1.0	2

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109	Internal breakdown in a dielectric target at high laser irradiance. Journal of Applied Physics, 1981, 52, 4186-4188.	1.1	7
110	Stimulated backscatter from long plasma columns. Optics Communications, 1981, 40, 35-40.	1.0	8
111	Energy Partition in CO ₂ -Laser-Irradiated Microballoons. Physical Review Letters, 1981, 47, 515-518.	2.9	16
112	The electron density structure of the plasma produced on glass microballoons by 10.6 μ m radiation. Physics of Fluids, 1981, 24, 537.	1.4	24
113	Picosecond Interferometric Studies of CO ₂ Laser Produced Plasmas. Springer Series in Chemical Physics, 1980, , 64-68.	0.2	1
114	Supercritical Density Profiles of CO ₂ -Laser-Irradiated Microballoons. Physical Review Letters, 1979, 43, 1664-1667.	2.9	51
115	Observations consistent with self-generated magnetic fields in CO ₂ laser-produced plasmas. Applied Physics Letters, 1979, 35, 106-108.	1.5	12
116	Actively mode-locked and Q-controlled Nd:glass laser. Review of Scientific Instruments, 1979, 50, 9-16.	0.6	22
117	Picosecond Diagnosis of CO ₂ Laser Produced Plasmas. Springer Series in Chemical Physics, 1978, , 274-280.	0.2	1
118	Generation of single synchronizable picosecond 1.06 μ m pulses. Applied Physics Letters, 1977, 30, 164-166.	1.5	30
119	Self-Steepening of the Density Profile of a CO ₂ -Laser-Produced Plasma. Physical Review Letters, 1977, 39, 932-935.	2.9	102
120	Picosecond XeF amplified laser pulses. Applied Physics Letters, 1977, 30, 146-148.	1.5	35
121	Picosecond gain and saturation measurements of the 353 μ m XeF laser line. Applied Physics Letters, 1977, 31, 747-749.	1.5	19
122	Unidirectional travelling wave operation of a mode-locking Nd:Glass ring laser. Optics Communications, 1977, 21, 327-331.	1.0	14
123	CO ₂ Laser-Plasma Interaction Studies At NRC-Canada. , 1977, , 161-180.		4
124	Synchronizable actively mode-locked Nd:glass laser. Applied Physics Letters, 1976, 29, 193-195.	1.5	19
125	Subnanosecond microscopic holographic interferometry of plasmas produced by 1 μ sec CO ₂ laser pulses. Applied Physics Letters, 1975, 27, 115-117.	1.5	5
126	Gain characteristics of a multiatmosphere UV-preionized CO ₂ laser. IEEE Journal of Quantum Electronics, 1975, 11, 767-773.	1.0	35