Miltcho B Danailov

List of Publications by Year
in descending order

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106	3,918	136885	123376
papers	citations	32 h-index	61 g-index

106	106	106	3023
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highly coherent and stable pulses from the FERMI seeded free-electron laser in the extreme ultraviolet. Nature Photonics, 2012, 6, 699-704.	15.6	903
2	Two-stage seeded soft-X-ray free-electron laser. Nature Photonics, 2013, 7, 913-918.	15.6	424
3	Four-wave mixing experiments with extreme ultraviolet transient gratings. Nature, 2015, 520, 205-208.	13.7	184
4	Two-colour pumpâ€“probe experiments with a twin-pulse-seed extreme ultraviolet free-electron laser. Nature Communications, 2013, 4, 2476.	5.8	156
5	Attosecond pulse shaping using a seeded free-electron laser. Nature, 2020, 578, 386-391.	13.7	116
6	The FERMI free-electron lasers. Journal of Synchrotron Radiation, 2015, 22, 485-491.	1.0	101
7	Coherent soft X-ray pulses from an echo-enabled harmonic generation free-electron laser. Nature Photonics, 2019, 13, 555-561.	15.6	92
8	Systematic investigation of absorption, fluorescence and laser properties of some p- and m-oligophenylenes. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2000, 56, 783-795.	2.0	88
9	Towards jitter-free pump-probe measurements at seeded free electron laser facilities. Optics Express, 2014, 22, 12869.	1.7	83
10	Tunability experiments at the FERMI@Elettra free-electron laser. New Journal of Physics, 2012, 14, 113009.	1.2	81
11	Control of the Polarization of a Vacuum-Ultraviolet, High-Gain, Free-Electron Laser. Physical Review X, 2014, 4, .	2.8	80
12	All-solid-state quasi-CW yellow laser with intracavity self-Raman conversion and sum frequency generation. Laser Physics Letters, 0, 7, 573-578.	0.6	77
13	Widely tunable two-colour seeded free-electron laser source for resonant-pump resonant-probe magnetic scattering. Nature Communications, 2016, 7, 10343.	5.8	77
14	Determining the polarization state of an extreme ultraviolet free-electron laser beam using atomic circular dichroism. Nature Communications, 2014, 5, 3648.	5.8	69
15	Spectrotemporal Shaping of Seeded Free-Electron Laser Pulses. Physical Review Letters, 2015, 115, 114801.	2.9	68
16	Localization of proteins bound to a replication origin of human DNA along the cell cycle. EMBO Journal, 2003, 22, 4294-4303.	3.5	66
17	Passively Q-switched m diode pumped Nd:KGW laser with V:YAG saturable absorber. Optical Materials, 2001, 16, 349-352.	1.7	59
18	Laser operation and Raman self-frequency conversion in Yb:KYW microchip laser. Applied Physics B: Lasers and Optics, 2002, 75, 795-797.	1.1	55

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19	Generation of Ultrashort Coherent Vacuum Ultraviolet Pulses Using Electron Storage Rings: A New Bright Light Source for Experiments. Physical Review Letters, 2008, 101, 053902.	2.9	55
20	Seeded X-ray free-electron laser generating radiation with laser statistical properties. Nature Communications, 2018, 9, 4498.	5.8	51
21	Tracking attosecond electronic coherences using phase-manipulated extreme ultraviolet pulses. Nature Communications, 2020, 11, 883.	5.8	50
22	Pulse Duration of Seeded Free-Electron Lasers. Physical Review X, 2017, 7, .	2.8	47
23	Simultaneous multiwavelength operation of Nd:YAG laser. Applied Physics Letters, 1992, 61, 746-748.	1.5	45
24	Functional interactions of DNA topoisomerases with a human replication origin. EMBO Journal, 2007, 26, 998-1009.	3.5	45
25	Chirped pulse amplification in an extreme-ultraviolet free-electron laser. Nature Communications, 2016, 7, 13688.	5.8	43
26	Two-colour generation in a chirped seeded free-electron laser: a close look. Optics Express, 2013, 21, 22728.	1.7	42
27	Nonlinear mirror mode locking of a cw Nd:YLF laser. Optics Letters, 1994, 19, 792.	1.7	39
28	Photoelectric effect with a twist. Nature Photonics, 2020, 14, 554-558.	15.6	39
29	A diodeâ€pumped nonlinear mirror modeâ€locked Nd:YAG laser. Applied Physics Letters, 1994, 65, 2392-2394.	1.5	38
30	Optimization of a high brightness photoinjector for a seeded FEL facility. Journal of Instrumentation, 2013, 8, P05015-P05015.	0.5	37
31	Chaotic and periodic passiveQswitching in coupledCO2lasers with a saturable absorber. Physical Review A, 1994, 50, 3464-3470.	1.0	34
32	Nanoscale dynamics by short-wavelength four wave mixing experiments. New Journal of Physics, 2013, 15, 123023.	1.2	33
33	EIS: the scattering beamline at FERMI. Journal of Synchrotron Radiation, 2015, 22, 553-564.	1.0	33
34	Multi-colour pulses from seeded free-electron-lasers: towards the development of non-linear core-level coherent spectroscopies. Faraday Discussions, 2014, 171, 487-503.	1.6	29
35	Multipurpose end-station for coherent diffraction imaging and scattering at FERMI@Elettra free-electron laser facility. Journal of Synchrotron Radiation, 2015, 22, 544-552.	1.0	29
36	Magnetization and Microstructure Dynamics in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Fe</mml:mi><mml:mo>/</mml:mo><mml:mi>MnAs</mml:mi><mml:mo>/</mml:mo><mml:mi> stretchy="false">(</mml:mo><mml:mn>001</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 52 Td (stretchy="false">)</mml Laser Pulse. Physical Review Letters, 2014, 113, 247202.	2.9	26

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37	High energy femtosecond supercontinuum light generation in large mode area photonic crystal fiber. Optics Communications, 2010, 283, 4378-4382.	1.0	22
38	Ultrabroadband laser using prism-based ?spatially-dispersive? resonator. Applied Physics B, Photophysics and Laser Chemistry, 1990, 51, 300-302.	1.5	20
39	Sub-nanosecond pulse dynamics of Nd:LSB microchip laser passively Q-switched by Cr:YAG saturable absorber. Optics Communications, 2005, 251, 154-164.	1.0	20
40	Generation and measurement of intense few-femtosecond superradiant extreme-ultraviolet free-electron laser pulses. Nature Photonics, 2021, 15, 523-529.	15.6	20
41	Self-Induced Harmonic Generation in a Storage-Ring Free-Electron Laser. Physical Review Letters, 2008, 100, 104801.	2.9	19
42	Modeling and experimental investigation of short pulse Raman microchip laser. Optics Communications, 2006, 263, 52-59.	1.0	18
43	Endohedral fullerenes: A way to control resonant high-order harmonic generation. Physical Review A, 2011, 84, .	1.0	17
44	Raman conversion of femtosecond laser pulses in crystals. Laser Physics Letters, 2012, 9, 770-774.	0.6	15
45	Storage ring free-electron lasing at 176 nm--dielectric mirror development for vacuum ultraviolet free-electron lasers. Applied Optics, 2006, 45, 5866.	2.1	14
46	All-optical single-shot complete electric field measurement of extreme ultraviolet free electron laser pulses. Optica, 2021, 8, 545.	4.8	12
47	Two-Stokes generation and effect of multiwave mixing on output pulse parameters of a Q-switched Raman microchip laser. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1232.	0.9	11
48	Experimental dynamical variables of a chaoticCO2laser with saturable absorber. Physical Review A, 1997, 55, 2463-2466.	1.0	10
49	On the performance of short pulse Nd 3+ :LSB microchip lasers. Applied Physics B: Lasers and Optics, 2001, 73, 671-676.	1.1	9
50	Experimental setups for FEL-based four-wave mixing experiments at FERMI. Journal of Synchrotron Radiation, 2016, 23, 132-140.	1.0	9
51	Element Selective Probe of the Ultra-Fast Magnetic Response to an Element Selective Excitation in Fe-Ni Compounds Using a Two-Color FEL Source. Photonics, 2017, 4, 6.	0.9	9
52	Two-photon absorption of soft X-ray free electron laser radiation by graphite near the carbon K-absorption edge. Chemical Physics Letters, 2018, 703, 112-116.	1.2	9
53	Light-Induced Magnetization at the Nanoscale. Physical Review Letters, 2022, 128, 157205.	2.9	9
54	Time-resolved photoelectron imaging of complex resonances in molecular nitrogen. Journal of Chemical Physics, 2021, 154, 144305.	1.2	8

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55	Radiation resistance of single and multilayer coatings against synchrotron radiation. , 2004, , .		7
56	Ultrafast laser synchronization at the FERMI@Elettra FEL. Proceedings of SPIE, 2013, , .	0.8	7
57	Optical setup for two-colour experiments at the low density matter beamline of FERMI. Journal of Optics (United Kingdom), 2017, 19, 114010.	1.0	7
58	Stable interferometric platform for phase modulation of seeded free-electron lasers. Optics Letters, 2019, 44, 943.	1.7	7
59	Nonlinear harmonics of a seeded free-electron laser as a coherent and ultrafast probe to investigate matter at the water window and beyond. Physical Review A, 2022, 105, .	1.0	7
60	Mode locking with spatial dispersion in the gain medium. Applied Physics B, Photophysics and Laser Chemistry, 1991, 53, 115-118.	1.5	6
61	Multiâ€pulse operation of threeâ€wavelength pulsedQâ€switched Nd:Y3Al5O12laser. Applied Physics Letters, 1994, 64, 1198-1200.	1.5	6
62	589 nm light generation by intracavity mixing in a Nd:YAG laser. Journal of Applied Physics, 1994, 75, 8240-8242.	1.1	6
63	Quantum theory of microchip lasers with intracavity SRS-conversion. Optics Communications, 2008, 281, 5202-5212.	1.0	6
64	Two-bunch operation with ns temporal separation at the FERMI FEL facility. New Journal of Physics, 2018, 20, 053047.	1.2	6
65	A novel free-electron laser single-pulse Wollaston polarimeter for magneto-dynamical studies. Structural Dynamics, 2021, 8, 034304.	0.9	6
66	Generation of multi-frequency radiation in pulsed microchip laser with Raman conversion. Laser Physics Letters, 0, 7, 555-559.	0.6	5
67	DFG-based mid-IR laser system for muounic-hydrogen spectroscopy. Proceedings of SPIE, 2014, , .	0.8	5
68	Single-shot fluctuations in waveguided high-harmonic generation. Optics Express, 2015, 23, 24888.	1.7	5
69	Impulsive laser-induced alignment of OCS molecules at FERMI. Physical Chemistry Chemical Physics, 2017, 19, 19733-19739.	1.3	5
70	24 mJ Cr+4:forsterite four-stage master-oscillator power-amplifier laser system for high resolution mid-infrared spectroscopy. Review of Scientific Instruments, 2019, 90, 093002.	0.6	5
71	High-gain harmonic generation with temporally overlapping seed pulses and application to ultrafast spectroscopy. Optics Express, 2020, 28, 29976.	1.7	5
72	DFG-based mid-IR tunable source with 0.5â€‰â€‰mJ energy and a 30â€‰â€‰pm linewidth. Optics Letters, 2020, 45, 5526.	3.7	5

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73	Image transfer by modulation of short light pulses. Applied Physics B, Photophysics and Laser Chemistry, 1989, 49, 371-375.	1.5	4
74	UVâ€induced transmission frustration in optical fibers. Applied Physics Letters, 1995, 67, 3393-3395.	1.5	4
75	ELIMINATION OF CHAOS IN MULTIMODE, INTRACAVITY-DOUBLED LASERS IN THE PRESENCE OF SPATIAL HOLE-BURNING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 2637-2645.	0.7	4
76	OPTICAL ABSORPTION AND LUMINESCENCE OF C60F2X COMPOUNDS. Surface Review and Letters, 2002, 09, 1339-1343.	0.5	4
77	Toward resistant vacuum-ultraviolet coatings for free-electron lasers down to 150 nm. Applied Optics, 2006, 45, 7316.	2.1	4
78	The FERMI seeded-FEL facility: Status and perspectives. AIP Conference Proceedings, 2016, , .	0.3	4
79	Dynamics of the MnAs Î±/Î²-Striped Microstructure and of the Fe Magnetization Reversal in Fe/MnAs/GaAs(001): An Optical-Laser Pumpâ€“Free-Electron-Laser Probe Scattering Experiment. Photonics, 2017, 4, 21.	0.9	4
80	Pulse amplification in a Cr4+:forsterite single longitudinal mode (SLM) multi-pass amplifier. Laser Physics, 2019, 29, 065801.	0.6	4
81	Spectrotemporal control of soft x-ray laser pulses. Physical Review Accelerators and Beams, 2020, 23, .	0.6	4
82	The seed laser system of the FERMI free-electron laser: design, performance and near future upgrades. High Power Laser Science and Engineering, 2021, 9, .	2.0	4
83	Enhancement of photo-refractive two-wave mixing gain with a Bessel pump beam. Optics Communications, 2003, 226, 387-391.	1.0	3
84	Coupled-cavity passively Q-switched two-Stokes microchip laser. Applied Physics B: Lasers and Optics, 2012, 108, 269-281.	1.1	3
85	Status and achievements at FERMI@Elettra: the first double cascade seeded EUV-SXR FEL facility open to users. , 2013, , .		3
86	Mechanisms for spontaneous and stimulated recombination in multiple quantum wells of InGaN/GaN heterostructures on silicon substrates. Journal of Applied Spectroscopy, 2008, 75, 96-103.	0.3	2
87	Supercontinuum generation in a large mode area photonic crystal fiber. , 2009, , .		2
88	Stationary generation of diode-pumped self-Raman Nd:YVO4/YVO4 composite crystal laser. Journal of Applied Spectroscopy, 2011, 78, 43-49.	0.3	2
89	Output power and intracavity intensity profiles of a quasi-continuous end-pumped Nd:YVO4 self-Raman mini laser. Applied Physics B: Lasers and Optics, 2012, 106, 9-17.	1.1	2
90	Study of a collinear single-shot-type cross-correlator for laser timing applications. Applied Physics B: Lasers and Optics, 2015, 120, 97-104.	1.1	2

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91	FEL-based transient grating spectroscopy. Proceedings of SPIE, 2015, , .	0.8	2
92	Pulse Shaping for a Long-Distance Optical Synchronization System. IEICE Transactions on Electronics, 2007, E90-C, 450-456.	0.3	2
93	Synchrotron-radiation-induced damages in optical materials. , 2003, 4932, 366.		1
94	Surface investigation of VUV-optical components after exposure to high-energy synchrotron radiation. , 2004, , .		1
95	<title>Comparison of fast Fourier transform based algorithms for free space propagation</title>. , 2005, , .		1
96	Semiclassical theory of transient intracavity stimulated Raman scattering in compact lasers. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 105402.	0.6	1
97	<title>Design and implementation of optical tweezer arrays using diffractive optical elements</title>. , 2004, , .		0
98	Pulse generation of Nd:LSB-Cr:YAG microchip laser: experimentally and theoretically. , 2005, 5447, 22.		0
99	<title>Synchronization of ELETTRA storage-ring light sources with an ultrafast CR:LISAF laser</title>. , 2005, , .		0
100	Intracavity stimulated Raman scattering in Nd:LSB-Cr:YAG microchip lasers. , 2005, , .		0
101	Birefringence of nanoporous alumina: experiment vs. theory. , 2007, , .		0
102	Q-switched microchip-lasers with intracavity Raman conversion. Proceedings of SPIE, 2007, , .	0.8	0
103	Matter under extreme conditions probed by a seeded free-electron-laser. AIP Conference Proceedings, 2015, , .	0.3	0
104	Experimental characterization of the FERMI laser heater and its impact on the FEL operations. Proceedings of SPIE, 2015, , .	0.8	0
105	Mid-IR Laser System for Muounic-Hydrogen Spectroscopy. , 2015, , .		0
106	A Novel Attosecond Timing Tool for Free-Electron Laser Experiment. , 2020, , .		0