Carlo Vicario

List of Publications by Year
in descending order

47 papers	2,771 citations	257450 24 h-index	233421 45 g-index
48 all docs	48 docs citations	48 times ranked	2804 citing authors

#	Article	IF	Citations
1	Generation of 09-mJ THz pulses in DSTMS pumped by a Cr:Mg_2SiO_4 laser. Optics Letters, 2014, 39, 6632.	3.3	272
2	SwissFEL: The Swiss X-ray Free Electron Laser. Applied Sciences (Switzerland), 2017, 7, 720.	2.5	272
3	Large-Amplitude Spin Dynamics Driven by a THz Pulse in Resonance with an Electromagnon. Science, 2014, 343, 1333-1336.	12.6	255
4	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>GV</mml:mi><mml:mo>/</mml:mo><mml:mi mathvariant="normal">m</mml:mi></mml:mrow></mml:math>Single-Cycle Terahertz Fields from a Laser-Driven Large-Size Partitioned Organic Crystal. Physical Review Letters, 2014, 112, .	7.8	244
5	High efficiency THz generation in DSTMS, DAST and OH1 pumped by Cr:forsterite laser. Optics Express, 2015, 23, 4573.	3.4	199
6	Strong-field single-cycle THz pulses generated in an organic crystal. Applied Physics Letters, 2011, 99, .	3.3	183
7	Off-resonant magnetization dynamics phase-locked to an intense phase-stable terahertz transient. Nature Photonics, 2013, 7, 720-723.	31.4	169
8	A compact and cost-effective hard X-ray free-electron laser driven by a high-brightness and low-energy electron beam. Nature Photonics, 2020, 14, 748-754.	31.4	140
9	Scaling submillimeter single-cycle transients toward megavolts per centimeter field strength via optical rectification in the organic crystal OH1. Optics Letters, 2012, 37, 899.	3.3	83
10	Spatiotemporal Focusing Dynamics of Intense Supercontinuum THz Pulses. Physical Review Letters, 2013, 110, 123902.	7.8	82
11	High-Gain Harmonic-Generation Free-Electron Laser Seeded by Harmonics Generated in Gas. Physical Review Letters, 2011, 107, 224801.	7.8	76
12	Self-Amplified Spontaneous Emission Free-Electron Laser with an Energy-Chirped Electron Beam and Undulator Tapering. Physical Review Letters, 2011, 106, 144801.	7.8	66
13	Direct Measurement of the Double Emittance Minimum in the Beam Dynamics of the Sparc High-Brightness Photoinjector. Physical Review Letters, 2007, 99, 234801.	7.8	59
14	High-energy terahertz pulses from organic crystals: DAST and DSTMS pumped at Ti:sapphire wavelength. Optics Letters, 2013, 38, 5106.	3.3	55
15	Intense THz source based on BNA organic crystal pumped at Ti:sapphire wavelength. Optics Letters, 2016, 41, 1777.	3.3	54
16	Leggett mode controlled by light pulses. Nature Physics, 2019, 15, 341-346.	16.7	51
17	The SwissFEL soft X-ray free-electron laser beamline: Athos. Journal of Synchrotron Radiation, 2019, 26, 1073-1084.	2.4	51
18	Pump pulse width and temperature effects in lithium niobate for efficient THz generation. Optics Letters, 2013, 38, 5373.	3.3	41

#	Article	IF	Citations
19	Commissioning experience and beam physics measurements at the SwissFEL Injector Test Facility. Physical Review Accelerators and Beams, 2016, 19, .	1.6	41
20	Ultrabroadband TW-class Ti:sapphire laser system with adjustable central wavelength, bandwidth and multi-color operation. Optics Express, 2011, 19, 20128.	3.4	40
21	Low frequency terahertz-induced demagnetization in ferromagnetic nickel. Applied Physics Letters, 2016, 108, 182903.	3.3	39
22	Highâ€Efficiency and Low Distortion Photoacoustic Effect in 3D Graphene Sponge. Advanced Functional Materials, 2018, 28, 1702652.	14.9	35
23	High field broadband THz generation in organic materials. Journal of Modern Optics, 2015, 62, 1480-1485.	1.3	34
24	High-power femtosecond Raman frequency shifter. Optics Letters, 2016, 41, 4719.	3.3	27
25	Intrinsic emittance reduction of copper cathodes by laser wavelength tuning in an rf photoinjector. Physical Review Special Topics: Accelerators and Beams, 2015, 18, .	1.8	23
26	Generation of frequency-tunable pulsed terahertz radiation by a Cr:forsterite laser system with an acoustooptical control of the pulse temporal profile. Quantum Electronics, 2016, 46, 1149-1153.	1.0	20
27	High-power third-harmonic flat pulse laser generation. Optics Letters, 2006, 31, 2885.	3.3	19
28	Narrow-band and tunable intense terahertz pulses for mode-selective coherent phonon excitation. Applied Physics Letters, 2020, 117, .	3.3	19
29	Generation of 1.5-octave intense infrared pulses by nonlinear interactions in DAST crystal. Journal of Optics (United Kingdom), 2015, 17, 094005.	2.2	16
30	Can Energetic Terahertz Pulses Initiate Surface Catalytic Reactions on the Picosecond Time Scale?. Chimia, 2011, 65, 323.	0.6	14
31	Pulsed laser deposition of Mg thin films on Cu substrates for photocathode applications. Applied Surface Science, 2005, 248, 397-401.	6.1	13
32	Timing jitter studies of the SwissFEL Test Injector drive laser. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 735, 471-479.	1.6	12
33	Simple scheme for ultraviolet time-pulse shaping. Applied Optics, 2007, 46, 4959.	2.1	10
34	The SPARC/X SASE-FEL Projects. Laser and Particle Beams, 2004, 22, 341-350.	1.0	8
35	Deep-ultraviolet picosecond flat-top pulses by chirp-matched sum frequency generation. Optics Letters, 2012, 37, 1619.	3.3	7
36	Two-color x-ray free-electron laser by photocathode laser emittance spoiler. Physical Review Accelerators and Beams, 2021, 24, .	1.6	7

#	Article	IF	Citations
37	OBSERVATION OF COHERENT EDGE RADIATION EMITTED BY A 100 FEMTOSECOND COMPRESSED ELECTRON BEAM. International Journal of Modern Physics A, 2007, 22, 4101-4114.	1.5	5
38	Intense sub-two-cycle infrared pulse generation via phase-mismatched cascaded nonlinear interaction in DAST crystal. Optics Letters, 2014, 39, 2660.	3.3	5
39	Supercontinuum generation in OHQ-N2S organic crystal driven by intense terahertz fields. Optics Letters, 2019, 44, 4881.	3.3	5
40	Deformable mirror for wavefront shaping of infrared radiation. Optics Letters, 2018, 43, 2062.	3.3	4
41	Structural features of diamond layers photo-emitting at sub-band gap energies. Diamond and Related Materials, 2003, 12, 2186-2194.	3.9	3
42	Experimental demonstration of two-color x-ray free-electron-laser pulses via wakefield excitation. Physical Review Accelerators and Beams, 2021, 24, .	1.6	3
43	Overview of SwissFEL dual-photocathode laser capabilities and perspectives for exotic FEL modes. High Power Laser Science and Engineering, 0, , 1-51.	4.6	3
44	Impact of laser stacking and photocathode materials on microbunching stability in photoinjectors. Physical Review Accelerators and Beams, 2020, 23, .	1.6	3
45	Towards High-power Single-cycle THz Laser for Initiating High-field-sensitive Phenomena. Chimia, 2011, 65, 320.	0.6	2
46	Single-silicon CCD-CMOS platform for multi-spectral detection from terahertz to x-rays. Optics Letters, 2017, 42, 4596.	3.3	2
47	Photoemission from diamond films illuminated by intense Nd:YAG laser harmonics. Applied Physics A: Materials Science and Processing, 2003, 77, 805-809.	2.3	0