Philippe Balcou

List of Publications by Year
in descending order

84 papers	10,796 citations	126708 33 h-index	95083 68 g-index
86 all docs	86 docs citations	86 times ranked	4316 citing authors

#	Article	IF	Citations
1	Amplified short-wavelength light scattered by relativistic electrons in the laser-induced optical lattice. Physical Review Special Topics: Accelerators and Beams, 2015, 18, .	1.8	2
2	Reply to comment on â€œProposal for Raman X-ray free electron laserâ€• European Physical Journal D, 2011, 62, 459-459.	0.6	0
3	Collective properties of a relativistic electron beam injected into a high intensity optical lattice. European Physical Journal D, 2011, 65, 533-540.	0.6	18
4	Noise performances of a high-power picosecond Nd:YVO 4 oscillator. Proceedings of SPIE, 2011, , .	0.8	0
5	Proposal for a Raman X-ray free electron laser. European Physical Journal D, 2010, 59, 525-537.	0.6	22
6	High-power passively mode-locked Nd:YVO 4 oscillator with adjustable pulse duration between 46 ps and 12 ps. , 2010, , .		2
7	Picosecond pulses of variable duration from a high-power passively mode-locked Nd:YVO_4 laser free of spatial hole burning. Optics Letters, 2010, 35, 1644.	1.7	10
8	21â€…W, 18â€…ps SESAM-passively modelocked Nd:YAG oscillator with diode-side-pumped single laser head. Electronics Letters, 2009, 45, 884.	0.5	3
9	Probing coherently excited optical phonons by extreme ultraviolet radiation with femtosecond time resolution. Applied Physics Letters, 2008, 93, .	1.5	16
10	Systematic study of high-order harmonic optimal control by temporal pulse shaping of laser pulses. Physical Review A, 2007, 76, .	1.0	8
11	Broadband attosecond pulse shaping. Optics Letters, 2007, 32, 1353.	1.7	50
12	Trains of attosecond electron wave packets. Journal of Modern Optics, 2006, 53, 233-245.	0.6	8
13	Optimization of High Harmonic Generation by Genetic Algorithm. Acta Physica Hungarica A Heavy Ion Physics, 2006, 26, 335-342.	0.4	0
14	Design and characterization of extreme-ultraviolet broadband mirrors for attosecond science. Optics Letters, 2006, 31, 1558.	1.7	60
15	Second generation X-ray lasers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 99, 142-152.	1.1	7
16	Sub- and superluminal velocity of supercontinuum pulses propagating in scattering media. Applied Physics B: Lasers and Optics, 2006, 85, 105-115.	1.1	0
17	Ã‰tude expÃ©rimentale de l'optimisation de la gÃ©nÃ©ration d'harmoniques d'ordre Ã©levÃ© par l'utilisation d'un algorithme gÃ©nÃ©tique. European Physical Journal Special Topics, 2006, 138, 35-41.	0.2	1
18	Adaptive shaping of a focused intense laser beam into a doughnut mode. Optics Communications, 2005, 246, 131-140.	1.0	22

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19	Progress in optical-field-ionization soft X-ray lasers at LOA. Laser and Particle Beams, 2005, 23, .	0.4	7
20	Attosecond Electron Wave Packet Dynamics in Strong Laser Fields. Physical Review Letters, 2005, 95, 013001.	2.9	107
21	Frequency chirp of harmonic and attosecond pulses. Journal of Modern Optics, 2005, 52, 379-394.	0.6	121
22	Temporal superresolution of ultrashort laser pulses. Optics Express, 2005, 13, 8222.	1.7	13
23	Optical biopsy of fixed human skin with backward-collected optical harmonics signals. Optics Express, 2005, 13, 8231.	1.7	70
24	Compression of attosecond harmonic pulses by extreme-ultraviolet chirped mirrors. Optics Letters, 2005, 30, 1554.	1.7	73
25	Ã‰tude de la gÃ©nÃ©ration d'harmoniques anormales d'ordre Ã©levÃ© Ã basse intensitÃ©. European Physical Journal Special Topics, 2005, 127, 181-185.	0.2	0
26	Lasers X de deuxiÃ¨me gÃ©nÃ©ration. European Physical Journal Special Topics, 2005, 127, 9-13.	0.2	0
27	Optimisation de la gÃ©nÃ©ration d'harmoniques d'ordre Ã©levÃ© Ã l'aide d'une optique adaptative et d'un modulateur acousto-optique. European Physical Journal Special Topics, 2005, 127, 99-103.	0.2	0
28	Anomalous high-order harmonic generation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 2661-2675.	0.6	5
29	A high-intensity highly coherent soft X-ray femtosecond laser seeded by a high harmonic beam. Nature, 2004, 431, 426-429.	13.7	313
30	Progress on Collisionally Pumped Optical-Field-Ionization Soft X-Ray Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2004, 10, 1351-1362.	1.9	1
31	Recent developments in X-UV optics and X-UV diagnostics. Applied Physics B: Lasers and Optics, 2004, 78, 983-988.	1.1	13
32	Characterization of collisionally pumped optical-field-ionization soft X-ray lasers. Applied Physics B: Lasers and Optics, 2004, 78, 939-944.	1.1	10
33	Experimental observation of anomalous high harmonics at low intensities. Applied Physics B: Lasers and Optics, 2004, 78, 845-849.	1.1	2
34	Intrinsic chirp of attosecond pulses: Single-atom model versus experiment. Physical Review A, 2004, 69, .	1.0	67
35	Enhancement of high-order harmonic generation at tuned wavelengths through adaptive control. Optics Letters, 2004, 29, 86.	1.7	85
36	Optimization of the focused flux of high harmonics. European Physical Journal D, 2003, 26, 47-50.	0.6	4

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37	Time-resolved study of the spectral characteristics of supercontinuum pulses propagating in scattering media. Applied Physics B: Lasers and Optics, 2003, 77, 253-257.	1.1	4
38	Imaging and quality assessment of high-harmonic focal spots. Optics Letters, 2003, 28, 1049.	1.7	34
39	Investigations of collisionally pumped optical field ionization soft-x-ray lasers. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 195.	0.9	14
40	Observation of high-contrast coherence fringes in high-order harmonic generation. Physical Review A, 2003, 68, .	1.0	17
41	Global Optimization of High Harmonic Generation. Physical Review Letters, 2003, 90, 193901.	2.9	151
42	Measurement of the Subcycle Timing of Attosecond XUV Bursts in High-Harmonic Generation. Physical Review Letters, 2003, 91, 063901.	2.9	59
43	Advances in collisionally pumped optical-field-ionization soft x-ray lasers. , 2003, 5197, 119.		2
44	New techniques for the measurement of x-ray beam or x-ray optics quality. , 2003, 5197, 194.		1
45	Adaptive Optimization of High Order Harmonic Generation in a Free Propagation Geometry. Springer Series in Chemical Physics, 2003, , 57-59.	0.2	0
46	Ã‰tude de la gÃ©nÃ©ration d'harmoniques parÂdesÂfaisceaux tronquÃ©s. European Physical Journal Special Topics, 2003, 108, 105-108.	0.2	0
47	Lasers XUV collisionnels pompÃ©s par des lasers femtoseconde. European Physical Journal Special Topics, 2003, 108, 161-164.	0.2	0
48	Mesure de la dynamique couplÃ©e de propagation et d'ionisation d'une impulsion laser â€“ Application au laser X-OFI ou Ã la gÃ©nÃ©ration d'harmoniques d'ordres Ã©levÃ©s. European Physical Journal Special Topics, 2003, 108, 109-112.	0.2	0
49	Relativistic electron generation in interactions of a 30 TW laser pulse with a thin foil target. Physical Review E, 2002, 66, 066402.	0.8	59
50	Demonstration of a Ni-Like Kr Optical-Field-Ionization Collisional Soft X-Ray Laser at 32.8Ânm. Physical Review Letters, 2002, 89, 253901.	2.9	91
51	Deuterium-Deuterium Fusion Dynamics in Low-Density Molecular-Cluster Jets Irradiated by Intense Ultrafast Laser Pulses. Physical Review Letters, 2002, 89, 065005.	2.9	163
52	High-order-harmonic generation: towards laser-induced phase-matching control and relativistic effects. Applied Physics B: Lasers and Optics, 2002, 74, 509-515.	1.1	27
53	Study of ambiguities inherent to the spectral analysis of Voigt profilesâ€”a modified Simplex approach. Chemometrics and Intelligent Laboratory Systems, 2002, 63, 41-55.	1.8	1
54	High order harmonic generation optimization with an apertured laser beam. European Physical Journal D, 2002, 21, 353-359.	0.6	65

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55	Observation of a Train of Attosecond Pulses from High Harmonic Generation. Science, 2001, 292, 1689-1692.	6.0	2,279
56	Femtosecond laser driven XUV sources: High-harmonic and OFI X-ray laser studies. European Physical Journal Special Topics, 2001, 11, Pr2-175-Pr2-180.	0.2	1
57	Investigation of ultraintense femtosecond laserâ€“plasma interactions through ï‰ and 2ï‰ imaging and spectroscopy. Laser and Particle Beams, 2001, 19, 47-53.	0.4	5
58	<title>X-ray laser progress for applications</title>. , 2001, 4505, 211.		0
59	<title>Optimizing photonuclear reactions with a high-intensity laser</title>. , 2001, , .		3
60	<title>Femtosecond solid-liquid phase transition studied with ultrafast x-ray diffraction</title>. , 2001, , .		1
61	Kilohertz extreme-ultraviolet light source based on femtosecond high-order harmonic generation from noble gases. Applied Physics B: Lasers and Optics, 2001, 73, 687-692.	1.1	40
62	Non-thermal melting in semiconductors measured at femtosecond resolution. Nature, 2001, 410, 65-68.	13.7	661
63	<title>Collisional optical-field ionization soft x-ray lasers</title>. , 2001, 4505, 195.		3
64	Saturated Amplification of a Collisionally Pumped Optical-Field-Ionization Soft X-Ray Laser at 41.8 nm. Physical Review Letters, 2001, 86, 3004-3007.	2.9	120
65	High-energy electron beam production by femtosecond laser interactions with exploding-foil plasmas. Physical Review E, 2001, 64, 015402.	0.8	24
66	Generation of high-order spatially coherent harmonics from solid targets by femtosecond laser pulses. Physical Review A, 2000, 62, .	1.0	88
67	Controlling phase matching of high-order harmonic generation by manipulating the fundamental field. Physical Review A, 1999, 60, 5010-5018.	1.0	32
68	Quantum-path analysis and phase matching of high-order harmonic generation and high-order frequency mixing processes in strong laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 2973-2989.	0.6	91
69	Spatiotemporal separation of high harmonic radiation into two quantum path components. Physical Review A, 1999, 59, 1367-1373.	1.0	175
70	Generalized phase-matching conditions for high harmonics: The role of field-gradient forces. Physical Review A, 1997, 55, 3204-3210.	1.0	300
71	Dual Optical Tunneling Times in Frustrated Total Internal Reflection. Physical Review Letters, 1997, 78, 851-854.	2.9	231
72	Frustrated total internal reflection of laser eigenstates. Journal of the Optical Society of America B: Optical Physics, 1996, 13, 1559.	0.9	4

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73	Reverse relative Goos-HÃnchen effect. Europhysics Letters, 1996, 33, 359-364.	0.7	6
74	High-order harmonic generation processes in classical and quantum anharmonic oscillators. Physical Review A, 1996, 53, 3456-3468.	1.0	32
75	HIGH-ORDER HARMONICS: A COHERENT SOURCE IN THE XUV RANGE. Journal of Nonlinear Optical Physics and Materials, 1995, 04, 647-665.	1.1	34
76	Angular Goosâ€“HÃnchen effect in curved dielectric microstructures. Optics Letters, 1995, 20, 1233.	1.7	18
77	Double-helicoidal eigenstates in lasers. Journal of the Optical Society of America B: Optical Physics, 1995, 12, 132.	0.9	2
78	Theory of high-harmonic generation by low-frequency laser fields. Physical Review A, 1994, 49, 2117-2132.	1.0	3,431
79	High-order harmonic generation in rare gases with a 1-ps 1053-nm laser. Physical Review Letters, 1993, 70, 774-777.	2.9	674
80	High-order harmonic generation in rare gases with an intense short-pulse laser. Physical Review A, 1993, 48, 4709-4720.	1.0	261
81	Phase-matching effects in strong-field harmonic generation. Physical Review A, 1993, 47, 1447-1459.	1.0	102
82	Optimizing high-order harmonic generation in strong fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 4467-4485.	0.6	91
83	Coherence and resonance effects in high-order harmonic generation. Physical Review Letters, 1992, 68, 166-169.	2.9	51
84	Calculations of high-order harmonic-generation processes in xenon at 1064 nm. Physical Review A, 1992, 46, 2778-2790.	1.0	224