Marc Hanna

List of Publications by Year
in descending order

179	2,569	186265	233421
papers	citations	28 h-index	45 g-index

182	182	182	1697
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coherent beam combining of two femtosecond fiber chirped-pulse amplifiers. Optics Letters, 2011, 36, 621.	3.3	102
2	Microjoule femtosecond fiber laser at 16 Î¼m for corneal surgery applications. Optics Letters, 2009, 34, 1991.	3.3	101
3	Dual-color deep-tissue three-photon microscopy with a multiband infrared laser. Light: Science and Applications, 2018, 7, 12.	16.6	91
4	Nonlinear temporal compression in multipass cells: theory. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1340.	2.1	90
5	Continuous-wave and femtosecond laser operation of Yb:CaGdAlO_4 under high-power diode pumping. Optics Letters, 2007, 32, 1962.	3.3	87
6	Nonlinear pulse compression based on a gas-filled multipass cell. Optics Letters, 2018, 43, 2252.	3.3	83
7	Femtosecond fiber chirped- and divided-pulse amplification system. Optics Letters, 2013, 38, 106.	3.3	82
8	Stretcher-free high energy nonlinear amplification of femtosecond pulses in rod-type fibers. Optics Letters, 2008, 33, 107.	3.3	80
9	Visible supercontinuum generation controlled by intermodal four-wave mixing in microstructured fiber. Optics Letters, 2007, 32, 2173.	3.3	71
10	Electro-optical chaos for multi-10â€…Gbitâˆ•s optical transmissions. Electronics Letters, 2004, 40, 898.	1.0	67
11	Generation of 63 fs 41 MW peak power pulses from a parabolic fiber amplifier operated beyond the gain bandwidth limit. Optics Letters, 2007, 32, 2520.	3.3	65
12	Diode-pumped 99 fs Yb:CaF_2 oscillator. Optics Letters, 2009, 34, 1474.	3.3	64
13	Ultrashort pulse laser surgery of the cornea and the sclera. Journal of Optics (United Kingdom), 2010, 12, 084002.	2.2	56
14	Coherent beam combining with an ultrafast multicore Yb-doped fiber amplifier. Optics Express, 2015, 23, 5406.	3.4	51
15	Supercontinuum-seeded few-cycle mid-infrared OPCPA system. Optics Express, 2016, 24, 26494.	3.4	49
16	High-energy few-cycle Yb-doped fiber amplifier source based on a single nonlinear compression stage. Optics Express, 2017, 25, 7530.	3.4	49
17	Fiber optical parametric chirped-pulse amplification in the femtosecond regime. Optics Express, 2006, 14, 2783.	3.4	48
18	Complete measurement of fiber modal content by wavefront analysis. Optics Express, 2012, 20, 4074.	3.4	46

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19	High-power two-cycle ultrafast source based on hybrid nonlinear compression. Optics Express, 2019, 27, 1958.	3.4	42
20	Low-repetition-rate femtosecond operation in extended-cavity mode-locked Yb:CALGO laser. Optics Letters, 2009, 34, 196.	3.3	40
21	Passive coherent beam combining of two femtosecond fiber chirped-pulse amplifiers. Optics Letters, 2011, 36, 4023.	3.3	38
22	High peak-power stretcher-free femtosecond fiber amplifier using passive spatio-temporal coherent combining. Optics Express, 2012, 20, 21627.	3.4	38
23	Nonlinear compression of high energy fiber amplifier pulses in air-filled hypocycloid-core Kagome fiber. Optics Express, 2015, 23, 7416.	3.4	38
24	Phase and amplitude control of a multimode LMA fiber beam by use of digital holography. Optics Express, 2009, 17, 13000.	3.4	36
25	From Flow to Map in an Experimental High-Dimensional Electro-Optic Nonlinear Delay Oscillator. Physical Review Letters, 2005, 95, 043903.	7.8	33
26	Energy scaling of a nonlinear compression setup using passive coherent combining. Optics Letters, 2013, 38, 4437.	3.3	33
27	Passive coherent combination of two ultrafast rod type fiber chirped pulse amplifiers. Optics Letters, 2012, 37, 1460.	3.3	32
28	Soliton optical phase control by use of in-line filters. Optics Letters, 1999, 24, 732.	3.3	31
29	Hybrid master oscillator power amplifier high-power narrow-linewidth nanosecond laser source at 257Ânm. Optics Letters, 2013, 38, 995.	3.3	28
30	Orbital angular momentum from semiconductor high-order harmonics. Optics Letters, 2019, 44, 546.	3.3	28
31	High-energy chirped- and divided-pulse Sagnac femtosecond fiber amplifier. Optics Letters, 2015, 40, 89.	3.3	27
32	Nonlinear Optics in Multipass Cells. Laser and Photonics Reviews, 2021, 15, 2100220.	8.7	27
33	Third-order spectral phase compensation in parabolic pulse compression. Optics Express, 2007, 15, 9372.	3.4	26
34	Mode-locked operation of a diode-pumped femtosecond Yb:SrF_2 laser. Optics Letters, 2009, 34, 2354.	3.3	25
35	Passive coherent combining of CEP-stable few-cycle pulses from a temporally divided hollow fiber compressor. Optics Letters, 2015, 40, 709.	3.3	25
36	Coherent combination of ultrafast fiber amplifiers. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 062004.	1.5	25

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37	Self-compression in a multipass cell. Optics Letters, 2018, 43, 5643.	3.3	25
38	Enhanced extreme ultraviolet high-harmonic generation from chromium-doped magnesium oxide. Applied Physics Letters, 2021, 118, .	3.3	22
39	Multipass cells: 1D numerical model and investigation of spatio-spectral couplings at high nonlinearity. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 993.	2.1	22
40	Optical pulse generation using soliton-assisted time-lens compression. Optics Express, 2005, 13, 1743.	3.4	21
41	ICAN as a new laser paradigm for high energy, high average power femtosecond pulses. European Physical Journal: Special Topics, 2014, 223, 1189-1195.	2.6	21
42	Distributed nonlinear fiber chirped-pulse amplifier system. Optics Express, 2009, 17, 10835.	3.4	19
43	Wavefront control of a multicore ytterbium-doped pulse fiber amplifier by digital holography. Optics Letters, 2010, 35, 1428.	3.3	19
44	Compensation of Gain Narrowing by Self-Phase Modulation in High-Energy Ultrafast Fiber Chirped-Pulse Amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 182-186.	2.9	18
45	Nonlinear compression in a rod-type fiber for high energy ultrashort pulse generation. Optics Express, 2009, 17, 11155.	3.4	17
46	Spectral and spatial full-bandwidth correlation analysis of bulk-generated supercontinuum in the mid-infrared. Optics Letters, 2015, 40, 673.	3.3	17
47	Compact, simple, and robust cross polarized wave generation source of few-cycle, high-contrast pulses for seeding petawatt-class laser systems. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2607.	2.1	16
48	Calculation of optical phase jitter in dispersion-managed systems by use of the moment method. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 24.	2.1	15
49	Enhanced nonlinear interaction in a microcavity under coherent excitation. Optics Express, 2015, 23, 29964.	3.4	15
50	Broad-band and ultrasensitive pulse characterization using frequency-resolved optical gating via four-wave mixing in a semiconductor optical amplifier. IEEE Photonics Technology Letters, 2005, 17, 157-159.	2.5	14
51	Efficient versatile-repetition-rate picosecond source for material processing applications. Applied Optics, 2008, 47, 967.	2.1	14
52	Analysis of Limitations in Divided-Pulse Nonlinear Compression and Amplification. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 619-623.	2.9	14
53	High Repetition Rate Yb:CaF₂ Multipass Amplifiers Operating in the 100-<roman>mJ</roman> Range. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 464-474.	2.9	14
54	Coherent beam combining of a narrow-linewidth long-pulse Er^3+-doped multicore fiber amplifier. Optics Express, 2017, 25, 9528.	3.4	14

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55	Impact of spectral phase mismatch on femtosecond coherent beam combining systems. Optics Letters, 2012, 37, 650.	3.3	13
56	Two-channel pulse synthesis to overcome gain narrowing in femtosecond fiber amplifiers. Optics Letters, 2013, 38, 5430.	3.3	13
57	Single-stage few-cycle nonlinear compression of milliJoule energy Ti:Sa femtosecond pulses in a multipass cell. Optics Letters, 2021, 46, 5264.	3.3	13
58	CEP-stable high-energy ytterbium-doped fiber amplifier. Optics Letters, 2019, 44, 3909.	3.3	13
59	Enhanced intrapulse difference frequency generation in the mid-infrared by a spectrally dependent polarization state. Optics Letters, 2022, 47, 261.	3.3	13
60	Ultra-broadband THz pulses with electric field amplitude exceeding 100 kV/cm at a 200 kHz repetition rate. Optics Express, 2022, 30, 15556.	3.4	13
61	Microcavity-enhanced surface-emitted second-harmonic generation for ultrafast all-optical signal processing. IEEE Journal of Quantum Electronics, 2002, 38, 19-30.	1.9	12
62	New Yb-doped crystals for high-power and ultrashort lasers. , 2006, , .		12
63	Impact of self-phase modulation on coherently combined fiber chirped-pulse amplifiers. Optics Letters, 2010, 35, 1293.	3.3	12
64	Spatio-spectral structures in high harmonic generation driven by tightly focused high repetition rate lasers. Journal of the Optical Society of America B: Optical Physics, 2018, 35, A6.	2.1	12
65	Experimental investigation of soliton optical phase jitter. IEEE Journal of Quantum Electronics, 2000, 36, 1333-1338.	1.9	11
66	Performance assessment of DPSK soliton transmission system. Electronics Letters, 2001, 37, 644.	1.0	11
67	Spectral method for the simultaneous determination of uncorrelated and correlated amplitude and timing jitter. Applied Physics Letters, 2002, 80, 3694-3696.	3.3	11
68	Rear-side resonator architecture for the passive coherent combining of high-brightness laser diodes. Optics Letters, 2016, 41, 950.	3.3	11
69	Temporal cleaning of a high-energy fiber-based ultrafast laser using cross-polarized wave generation. Optics Letters, 2011, 36, 1830.	3.3	10
70	Coherent beam combining architectures for high power tapered laser arrays. , 2017, , .		10
71	Nonlinear beam matching to gas-filled multipass cells. OSA Continuum, 2021, 4, 732.	1.8	10
72	Hybrid pulse propagation model and quasi-phase-matched four-wave mixing in multipass cells. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 2982.	2.1	10

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73	Alternate Multiwavelength Modelocked Fiber Laser. IEEE Photonics Technology Letters, 2004, 16, 1816-1818.	2.5	9
74	Active spectral phase control by use of an acousto-optic programmable filter in high-repetition-rate sub-80 fs nonlinear fiber amplifiers. Optics Letters, 2008, 33, 1431.	3.3	9
75	Simple and general method to calculate the dispersion properties of complex and aberrated stretchers-compressors. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 754.	2.1	9
76	Picosecond polarized supercontinuum generation controlled by intermodal four-wave mixing for fluorescence lifetime imaging microscopy. Optics Express, 2008, 16, 18844.	3.4	9
77	Two-port vectorial terahertz electro-optic sampling system. Applied Physics Letters, 2008, 92, .	3.3	9
78	Raman wavelength conversion in a multipass cell. Optics Letters, 2021, 46, 3380.	3.3	9
79	Reduction of phase jitter in dispersion-managed systems by in-line filtering. Optics Letters, 2004, 29, 688.	3.3	8
80	Hybrid high-energy high-power pulsewidth-tunable picosecond source. Optics Letters, 2015, 40, 5184.	3.3	8
81	Spectral compression in a multipass cell. Optics Express, 2020, 28, 21571.	3.4	8
82	Reduction of power fluctuations in ultrafast optically time-division-multiplexed pulse trains by use of a nonlinear amplifying loop mirror. IEEE Photonics Technology Letters, 2002, 14, 690-692.	2.5	7
83	Study on the influence of repetition rate and pulse duration on ablation efficiency using a new generation of high power ytterbium doped fiber ultrafast laser. Proceedings of SPIE, 2013, , .	0.8	7
84	Generation of interleaved pulses on time-wavelength grid by actively modelocked fibre laser. Electronics Letters, 2004, 40, 901.	1.0	6
85	High power femtosecond chirped pulse amplification in large mode area photonic bandgap Bragg fibers. Applied Physics B: Lasers and Optics, 2011, 103, 615-621.	2.2	6
86	High average power 600â€‰Î¼J ultrafast fiber laser for micromachining application. Journal of Laser Applications, 2015, 27, S29301.	1.7	6
87	Coherent combining efficiency in strongly saturated divided-pulse amplification systems. Optics Express, 2016, 24, 25329.	3.4	6
88	Effect of sliding filters on the soliton optical phase jitter in constant-dispersion systems. Optics Communications, 2004, 231, 181-185.	2.1	5
89	Reduction of Gordon-Mollenauer phase noise in dispersion-managed systems using in-line spectral inversion. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 2019.	2.1	5
90	High-energy femtosecond fiber laser at 1.6 microns for corneal surgery. , 2010, , .		4

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91	Photonic bandgap fibre oscillators and amplifiers. Optical Fiber Technology, 2010, 16, 419-427.	2.7	4
92	Parameters of influence in surface ablation of metals with using a high power tunable ultrafast laser. , 2013, , .		4
93	Simple carrier-envelope phase control and stabilization scheme for difference frequency generation-based systems. Optics Express, 2021, 29, 16261.	3.4	4
94	Microcavity-enhanced surface-emitted second-harmonic generation from 200 fs pulses at 1.5 Î¼m. Applied Physics Letters, 2001, 78, 3406-3408.	3.3	3
95	Reduced-bandwidth duobinary differential continuous-phase Modulation format for optical communications. IEEE Photonics Technology Letters, 2005, 17, 1331-1333.	2.5	3
96	Frequency conversion from near-infrared to mid-infrared in highly nonlinear optical fibres. , 2010, , .		3
97	Separate phase-locking and coherent combining of two laser diodes in a Michelson cavity. Proceedings of SPIE, 2015, , .	0.8	3
98	Coherent combining architectures for high-brightness laser diodes. , 2017, , .		3
99	Complete intensity and chirp characterisation of mW peak power ps pulses at 10â€…GHz propagating over 308â€…km in fibre recirculation loop. Electronics Letters, 2002, 38, 1696.	1.0	3
100	Stabilization of an actively modelocked fibre laser by multi-harmonic phase modulation. Optics Communications, 2005, 256, 394-399.	2.1	2
101	Experimental Measurement of Optical Phase Variance in RZ-DPSK Systems Using Direct Detection After Demodulation by an MZDI. IEEE Photonics Technology Letters, 2006, 18, 1990-1992.	2.5	2
102	Alternate Multiwavelength Picosecond Pulse Generation by Use of an Unbalanced Machâ€“Zehnder Interferometer in a Mode-locked Fiber Ring Laser. IEEE Journal of Quantum Electronics, 2007, 43, 85-96.	1.9	2
103	Coherent combining of two femtosecond fiber chirped pulse amplifiers. , 2011, , .		2
104	High-power operation of coherently coupled tapered laser diodes in an external cavity. , 2016, , .		2
105	All-Silica Photonic Bandgap Fiber Oscillators and Amplifiers. , 2011, , .		2
106	Numerical and theoretical analysis of an alternate multiwavelength mode-locked fiber laser. IEEE Photonics Technology Letters, 2005, 17, 2295-2297.	2.5	1
107	Numerical and experimental study of an alternate multiwavelength mode-locked fiber ring laser. , 2006, , .		1
108	Amplification of femtosecond pulses in large mode area Bragg fibers. , 2010, , .		1

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109	Greffes de cornÃ©e automatisÃ©es par laser femtoseconde optimisÃ© et systÃ¨me de contrÃ1e aberromÃ©trique. Irbm, 2010, 31, 97-100.	5.6	1
110	Mid-Infrared Supercontinuum Generation in Lead-Bismuth-Gallium Oxide Glass Photonic Crystal Fiber. , 2010, , .		1
111	Amplification of Femtosecond Pulses in Large Mode Area Photonic Bandgap Bragg Fiber. , 2010, , .		1
112	Mid-IR Supercontinuum in a Fluorozirconate Fiber Pumped by a Femtosecond CPA System at 1.6Âµm. , 2010, , .		1
113	Spectral pulse synthesis in large-scale ultrafast coherent combining systems. European Physical Journal: Special Topics, 2015, 224, 2545-2549.	2.6	1
114	Contradiction within wave optics and its solution within a particle picture: comment. Optics Express, 2016, 24, 2106.	3.4	1
115	10Î¼j, ultrashort sub-100 fs FCPA synthesizer. Proceedings of SPIE, 2016, , .	0.8	1
116	Soliton Compression in a Multipass Cell. , 2019, , .		1
117	Coherent combining of high brightness tapered lasers in master oscillator power amplifier configuration. , 2018, , .		1
118	High power Yb:CALGO thin-disk lasers in cw and fs regime. , 2013, , .		1
119	Electro-optic nonlinear oscillator for ultra-fast secure chaos communication. , 2004, , .		0
120	Stabilization of an actively mode-locked erbium-doped fiber ring laser by multi-harmonic phase modulation. , 2006, , .		0
121	Supercontinuum generation in a highly birefringent photonic crystal fibre seeded by a low-repetition rate picosecond infrared laser. , 2007, , .		0
122	Direct Amplification of Femtosecond Pulses in Ytterbium-Doped Fiber Amplifiers. Fiber and Integrated Optics, 2008, 27, 467-483.	2.5	0
123	Parabolic fiber amplifier beyond the gain bandwidth limits. Proceedings of SPIE, 2008, , .	0.8	0
124	Direct pulse compression of yb-doped fiber amplified pulses by use of a dazzler. , 2008, , .		0
125	High-energy direct amplification of femtosecond pulses in the nonlinear regime. , 2008, , .		0
126	Low-repetition-rate femtosecond operation in long cavity modelocked Yb:CALGO laser. , 2008, , .		0

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127	Distributed nonlinear fiber chirped-pulse amplification system. , 2009, , .		0
128	Generation of 49 fs, 41 MW peak power pulses from fiber laser using nonlinear compression in rod type fiber. , 2009, , .		0
129	Coherent fiber combining by digital holography. , 2010, , .		0
130	Wavefront control by digital holography in an Yb-doped multi-core fiber amplifier. , 2010, , .		0
131	Dual-pumping scheme for high-energy femtosecond Er-doped fiber laser at 1.6 Âµm. , 2010, , .		0
132	Amplification of femtosecond pulses in two-stage chirped pulse amplification system based on large mode area photonic bandgap fibres. , 2010, , .		0
133	Photonic bandgap fibres for nonlinear optics. , 2010, , .		0
134	Measurement and influence of spectral phase mismatch in femtosecond coherent beam combining systems. , 2012, , .		0
135	Passive coherent beam combining of two femtosecond fiber chirped-pulse amplifiers. , 2012, , .		0
136	Femtosecond fiber chirped- and divided-pulse amplification. , 2013, , .		0
137	Narrow-linewidth UV laser source at 257 nm. , 2013, , .		0
138	Energy scaling of ultrafast fiber systems using chirped and divided pulse amplification. , 2013, , .		0
139	Investigation on repetition rate and pulse duration influences on ablation efficiency of metals using a high average power Yb-doped ultrafast laser. MATEC Web of Conferences, 2013, 8, 04010.	0.2	0
140	Divided-pulse nonlinear compression. , 2014, , .		0
141	Spectral synthesis to overcome gain-narrowing in femtosecond fiber amplifiers. , 2014, , .		0
142	Coherent excitation of a nonlinear silicon microcavity. , 2014, , .		0
143	High average power and energetic femtosecond fiber laser using chirped- and divided-pulse amplification. , 2014, , .		0
144	High-energy post-compression in hypocycloid-core Kagome fiber. , 2014, , .		0

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145	Energetic and high average power femtosecond fiber laser using chirped- and divided-pulse amplification. , 2014, , .		0
146	Passive coherent combining of two tapered laser diodes in an interferometric external cavity. , 2015, , .		0
147	Nonlinear compression of ultrafast industrial lasers in hypocyloid-core Kagome hollow-core fiber. , 2015, , .		0
148	High-energy, 34 fs, fiber source via nonlinear compression in hypocycloid-core Kagome fiber. , 2015, , .		0
149	Chirped and divided-pulse Sagnac fiber amplifier. Proceedings of SPIE, 2015, , .	0.8	0
150	Power dependence on the nonlinear interaction enhancement in a coherently excited microcavity. Proceedings of SPIE, 2016, , .	0.8	0
151	High energy pulsewidth tunable CPA free picosecond source. Proceedings of SPIE, 2016, , .	0.8	0
152	High power mid-IR OPCPA system pumped by a femtosecond Yb-doped fiber amplifier. , 2017, , .		0
153	Generation of few cycle pulses from a bandwidth-optimized high energy Yb-doped fiber laser source. , 2017, , .		0
154	Coherent beam combining of high-power tapered amplifiers. , 2017, , .		0
155	Simple phase locker for coherent beam combining of multicore fiber amplifiers. , 2017, , .		0
156	Few cycle pulses IR laser system based on a bandwidth-optimized high energy Yb-doped fiber laser: Application to XUV generation. , 2018, , .		0
157	High Efficiency, High Energy Few-Cycle Driver at 1-Î¼m. , 2019, , .		0
158	CEP-Stable 100 kHz Nonlinearly Compressed YDFA Source for HHG. , 2019, , .		0
159	Raman conversion in a multipass cell. , 2021, , .		0
160	High energy direct amplification of femtosecond pulse in a highly non-linear fiber amplifier. , 2008, , .		0
161	Diffraction-limited operation from multimode and multi-core fibers using active digital holography precompensation. , 2010, , .		0
162	High-energy femtosecond Er-doped fiber laser at 1.6 Î¼m: influence of pumping scheme. , 2010, , .		0

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163	Yb doped Fluorides for High Power and Short-Pulse Laser Applications. , 2011, , .		0
164	Frequency conversion in the visible and UV regions of a high average power and high peak power ultrafast fiber amplifier. , 2012, , .		0
165	2 GW peak power ultrafast fiber system using passive coherent beam combining. , 2012, , .		0
166	Coherent combining of two femtosecond chirped-pulse amplifiers in a passive architecture. , 2012, , .		0
167	High energy diode pumped Yb:doped crystal amplifiers for ultrashort OPCPA. , 2012, , .		0
168	Spatio-temporal coherent combining scheme for fiber-based nonlinear compression. , 2013, , .		0
169	Power and energy scaling of ultrafast fiber systems using chirped and divided pulse amplification for high end applications. , 2013, , .		0
170	Coherent Beam Combining in Er3+ Doped Multicore Fiber with 1480nm Core Pumping. , 2016, , .		0
171	Hybrid Yb-doped-fiber/Yb:YAG architecture for high-energy, high-power, picosecond source tunable in duration. , 2016, , .		0
172	Sub-380 mrad CEP-stable Yb-doped amplifier delivering 60 microjoules, 80 fs pulses at 100 kHz. , 2019, , .		0
173	Compact, high-efficiency, ultrafast 2-cycles sources at 1030nm. , 2019, , .		0
174	Efficient, ultrafast few-cycle driver based on hybrid nonlinear compression. , 2019, , .		0
175	High-efficiency nonlinear compression using a gas-filled multipass cell. , 2019, , .		0
176	High repetition rate CEP-stable Yb-doped laser source for attoscience. , 2020, , .		0
177	High repetition rate CEP-stable Yb-doped fiber amplifier. , 2020, , .		0
178	Enhanced-efficiency of a mid-IR intrapulse difference-frequency generation. , 2022, , .		0
179	Tunable, Broadband Mid-Infrared Source Based on Amplified Intrapulse Difference Frequency Generation. , 2022, , .		0