

Cesar Jauregui

List of Publications by Year in descending order

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111
papers

5,793
citations

87723

38
h-index

102304

66
g-index

111
all docs

111
docs citations

111
times ranked

2072
citing authors

#	ARTICLE	IF	CITATIONS
1	High-power fibre lasers. Nature Photonics, 2013, 7, 861-867.	15.6	924
2	Experimental observations of the threshold-like onset of mode instabilities in high power fiber amplifiers. Optics Express, 2011, 19, 13218.	1.7	541
3	Yb-doped large-pitch fibres: effective single-mode operation based on higher-order mode delocalisation. Light: Science and Applications, 2012, 1, e8-e8.	7.7	251
4	Fiber chirped-pulse amplification system emitting 38 GW peak power. Optics Express, 2011, 19, 255.	1.7	243
5	Temporal dynamics of mode instabilities in high-power fiber lasers and amplifiers. Optics Express, 2012, 20, 15710.	1.7	231
6	The impact of modal interference on the beam quality of high-power fiber amplifiers. Optics Express, 2011, 19, 3258.	1.7	202
7	Physical origin of mode instabilities in high-power fiber laser systems. Optics Express, 2012, 20, 12912.	1.7	200
8	High average power large-pitch fiber amplifier with robust single-mode operation. Optics Letters, 2011, 36, 689.	1.7	185
9	Transverse mode instability. Advances in Optics and Photonics, 2020, 12, 429.	12.1	174
10	High-speed modal decomposition of mode instabilities in high-power fiber lasers. Optics Letters, 2011, 36, 4572.	1.7	151
11	94 W 980 nm high brightness Yb-doped fiber laser. Optics Express, 2008, 16, 17310.	1.7	147
12	26 mJ, 130 W Q-switched fiber-laser system with near-diffraction-limited beam quality. Optics Letters, 2012, 37, 1073.	1.7	137
13	Impact of photodarkening on the mode instability threshold. Optics Express, 2015, 23, 15265.	1.7	135
14	Simplified modelling the mode instability threshold of high power fiber amplifiers in the presence of photodarkening. Optics Express, 2015, 23, 20203.	1.7	122
15	Designing advanced very-large-mode-area fibers for power scaling of fiber-laser systems. Optica, 2014, 1, 233.	4.8	114
16	Thermally induced waveguide changes in active fibers. Optics Express, 2012, 20, 3997.	1.7	108
17	Watt-scale super-octave mid-infrared intrapulse difference frequency generation. Light: Science and Applications, 2018, 7, 94.	7.7	101
18	All-fiber laser source for CARS microscopy based on fiber optical parametric frequency conversion. Optics Express, 2012, 20, 4484.	1.7	98

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19	Passive mitigation strategies for mode instabilities in high-power fiber laser systems. Optics Express, 2013, 21, 19375.	1.7	87
20	The influence of index-depressions in core-pumped Yb-doped large pitch fibers. Optics Express, 2010, 18, 26834.	1.7	85
21	152â€‰W average power Tm-doped fiber CPA system. Optics Letters, 2014, 39, 4671.	1.7	85
22	Temperature-induced index gratings and their impact on mode instabilities in high-power fiber laser systems. Optics Express, 2012, 20, 440.	1.7	78
23	24ÂµJ, 33ÂW Q-switched Tm-doped fiber laser with near diffraction-limited beam quality. Optics Letters, 2013, 38, 97.	1.7	74
24	Controlling mode instabilities by dynamic mode excitation with an acousto-optic deflector. Optics Express, 2013, 21, 17285.	1.7	72
25	Tm-based fiber-laser system with more than 200â€‰MW peak power. Optics Letters, 2015, 40, 9.	1.7	66
26	Widely tuneable fiber optical parametric amplifier for coherent anti-Stokes Raman scattering microscopy. Optics Express, 2012, 20, 26583.	1.7	63
27	Fiber-based light sources for biomedical applications of coherent anti-Stokes Raman scattering microscopy. Laser and Photonics Reviews, 2015, 9, 435-451.	4.4	61
28	Scaling the mode instability threshold with multicore fibers. Optics Letters, 2014, 39, 2680.	1.7	60
29	Derivation of Raman treshold formulas for CW double-clad fiber amplifiers. Optics Express, 2009, 17, 8476.	1.7	59
30	Optimizing high-power Yb-doped fiber amplifier systems in the presence of transverse mode instabilities. Optics Express, 2016, 24, 7879.	1.7	57
31	Avoided crossings in photonic crystal fibers. Optics Express, 2011, 19, 13578.	1.7	56
32	2â€‰kW average power from a pulsed Yb-doped rod-type fiber amplifier. Optics Letters, 2014, 39, 6446.	1.7	56
33	Coherent Beam Combination of Ultrafast Fiber Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-9.	1.9	56
34	Preferential gain photonic-crystal fiber for mode stabilization at high average powers. Optics Express, 2011, 19, 8656.	1.7	46
35	High-power very large mode-area thulium-doped fiber laser. Optics Letters, 2012, 37, 4546.	1.7	46
36	Modal energy transfer by thermally induced refractive index gratings in Yb-doped fibers. Light: Science and Applications, 2018, 7, 59.	7.7	46

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37	Pump-modulation-induced beam stabilization in high-power fiber laser systems above the mode instability threshold. <i>Optics Express</i> , 2018, 26, 10691.	1.7	42
38	Intensity noise as a driver for transverse mode instability in fiber amplifiers. <i>Photonix</i> , 2020, 1, .	5.5	41
39	Analysis of passively combined divided-pulse amplification as an energy-scaling concept. <i>Optics Express</i> , 2013, 21, 29031.	1.7	40
40	58ÂmJ burst comprising ultrashort pulses with homogenous energy level from an Yb-doped fiber amplifier. <i>Optics Letters</i> , 2012, 37, 5169.	1.7	39
41	Fiber-based source for multiplex-CARS microscopy based on degenerate four-wave mixing. <i>Optics Express</i> , 2012, 20, 12004.	1.7	36
42	Performance Scaling of Ultrafast Laser Systems by Coherent Addition of Femtosecond Pulses. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 268-277.	1.9	35
43	High-power efficient generation of visible and mid-infrared radiation exploiting four-wave-mixing in optical fibers. <i>Optics Express</i> , 2012, 20, 24957.	1.7	31
44	Non-hexagonal Large-Pitch Fibers for enhanced mode discrimination. <i>Optics Express</i> , 2011, 19, 12081.	1.7	29
45	Triple-clad large-pitch fibers for compact high-power pulsed fiber laser systems. <i>Optics Letters</i> , 2014, 39, 209.	1.7	25
46	High-power thermally guiding index-antiguinding-core fibers. <i>Optics Letters</i> , 2013, 38, 510.	1.7	24
47	Phase-shift evolution of the thermally-induced refractive index grating in high-power fiber laser systems induced by pump-power variations. <i>Optics Express</i> , 2018, 26, 19489.	1.7	24
48	Transverse single-mode operation in a passive large pitch fiber with more than 200â€‰ μ m mode-field diameter. <i>Optics Letters</i> , 2019, 44, 650.	1.7	23
49	Improved Modal Reconstruction for Spatially and Spectrally Resolved Imaging \mathcal{S}^2 . <i>Journal of Lightwave Technology</i> , 2013, 31, 1295-1299.	2.7	17
50	Average power limit of fiber-laser systems with nearly diffraction-limited beam quality. <i>Proceedings of SPIE</i> , 2016, , .	0.8	17
51	500â€‰W rod-type 4â€‰ μ m multicore ultrafast fiber laser. <i>Optics Letters</i> , 2022, 47, 345.	1.7	15
52	Experimental analysis of Raman-induced transverse mode instability in a core-pumped Raman fiber amplifier. <i>Optics Express</i> , 2021, 29, 16175.	1.7	13
53	Transverse mode instability and thermal effects in thulium-doped fiber amplifiers under high thermal loads. <i>Optics Express</i> , 2021, 29, 14963.	1.7	13
54	Relative amplitude noise transfer function of an Yb ³⁺ -doped fiber amplifier chain. <i>Optics Express</i> , 2019, 27, 17041.	1.7	13

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55	Thermal analysis of Yb-doped high-power fiber amplifiers with Al:P co-doped cores. Optics Express, 2018, 26, 7614.	1.7	11
56	Wavelength Dependence of Maximal Diffraction-Limited Output Power of Fiber Lasers. , 2014, , .		10
57	High-energy Q-switched 16-core tapered rod-type fiber laser system. Optics Letters, 2022, 47, 1725.	1.7	10
58	Experimental investigation of transverse mode instabilities in a double-pass Yb-doped rod-type fiber amplifier. Proceedings of SPIE, 2017, , .	0.8	9
59	Mode Instabilities in High-Power Bidirectional Fiber Amplifiers and Lasers. , 2015, , .		6
60	Mitigation of mode instabilities by dynamic excitation of fiber modes. Proceedings of SPIE, 2013, , .	0.8	5
61	Mitigation of mode instabilities in high-power fiber laser systems by active modulation of the pump power. , 2017, , .		5
62	Ultra-large mode area fibers for high power lasers. , 2018, , .		4
63	On the thermal origin of mode instabilities in high power fiber lasers. , 2012, , .		3
64	Breaking the symmetry for enhanced higher-order mode delocalization. , 2014, , .		3
65	The impact of photodarkening on mode instabilities in high-power fiber laser systems. , 2014, , .		3
66	Ultrafast Tm-Doped Fiber Amplifier with 1 kW Average Output Power. , 2019, , .		3
67	Dependence of Mode Instabilities on the Extracted Power of Fiber Laser Systems. , 2013, , .		3
68	Dynamics and Origin of Mode Instabilities in High Power Fiber Laser Amplifiers. , 2012, , .		2
69	26-mJ pulse energy Q-switched large-pitch fiber laser system with excellent beam quality. Proceedings of SPIE, 2012, , .	0.8	2
70	Four-fold increase of the mode instability threshold with a multi-core photonic crystal fiber. , 2013, , .		2
71	Wavelength dependence of maximal diffraction-limited output power of fiber lasers. Proceedings of SPIE, 2015, , .	0.8	2
72	Recent progress in the understanding of mode instabilities. Proceedings of SPIE, 2015, , .	0.8	2

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73	Optimizing large-pitch fibers for higher average powers. Proceedings of SPIE, 2016, , .	0.8	2
74	Multi-GW, 100 fs thulium-doped fiber laser system for high-harmonic generation at high repetition rates. , 2017, , .		2
75	1 kW average power emission from an in-house 4x4 multicore rod-type fiber. , 2021, , .		2
76	Sub-700fs pulses at 152 W average power from a Tm-doped fiber CPA system. Proceedings of SPIE, 2015, , .	0.8	1
77	Controlling mode instabilities at 628 W average output power in an Yb-doped rod-type fiber amplifier by active modulation of the pump power. Proceedings of SPIE, 2017, , .	0.8	1
78	The impact of core co-dopants on the mode instability threshold of high-power fiber laser systems. Proceedings of SPIE, 2017, , .	0.8	1
79	Dependence of the mode instability threshold of high-power fiber laser systems on core co-dopants. , 2017, , .		1
80	Pump-Power-Noise Influence on Mode Instabilities in High-Power Fiber Laser Systems. , 2019, , .		1
81	Control and stabilization of the modal content of fiber amplifiers using traveling waves. Optics Express, 2021, 29, 34452.	1.7	1
82	All-fiber parametric generation of sub-100ps pulses at 650nm with 9Watt average power. , 2012, , .		1
83	Recent Progress in the Understanding and Mitigation of Mode Instabilities. , 2013, , .		1
84	High power 100fs fiber oscillator. , 2011, , .		0
85	Impact of modal interference on high-power fiber laser systems. Proceedings of SPIE, 2011, , .	0.8	0
86	High power Q-switched fiber laser system emitting 26 mJ pulses with near diffraction-limited beam quality. , 2012, , .		0
87	High power Q-switched Fiber Laser System delivering 22mJ Pulse Energy with Excellent Beam Quality. , 2012, , .		0
88	Mitigation strategies for mode instabilities in high-power fiber-laser systems. , 2013, , .		0
89	Fiber amplifier CPA system using divided-pulse amplification for multi-mJ extraction. , 2013, , .		0
90	Radial and azimuthal polarized all-fiber Raman oscillator. , 2013, , .		0

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91	58 mJ burst containing ultra-short pulses with homogenous energy level from an Yb-doped fiber amplifier. , 2013, , .		0
92	Mode instabilities: physical origin and mitigation strategies. Proceedings of SPIE, 2013, , .	0.8	0
93	4-fold Increase of the Mode-instability Threshold in an Yb-doped Multi-core Fiber Amplifier Emitting 536 W. , 2014, , .		0
94	Yb-doped Rod-type Fiber Amplifier with 2 kW Average Power. , 2014, , .		0
95	High gain ytterbium doped Ge pedestal large pitch fiber. , 2014, , .		0
96	Peak power scaling of thulium-doped ultrafast fiber laser systems. , 2015, , .		0
97	Optimizing the mode instability threshold of high-power fiber laser systems. Proceedings of SPIE, 2016, , .	0.8	0
98	Self-compression to 24 MW peak power in a fused silica solid-core fiber using a high-repetition rate thulium-based fiber laser system. Proceedings of SPIE, 2016, , .	0.8	0
99	Fully automated all-fiber widely-tunable optical-parametric-oscillator laser system. , 2017, , .		0
100	The impact of the fiber design on the RIN characteristics of high-power fiber laser systems. , 2017, , .		0
101	The Impact of Fiber Core Design and Thermally-Induced Phase Shifts on the Threshold of Mode Instabilities. , 2019, , .		0
102	High Performance Ultrafast Thulium-Doped Fiber Lasers. , 2019, , .		0
103	Transverse Mode Instability in High-Power Fiber Laser Systems: a "Hot Topic". , 2021, , .		0
104	Average-Power Scaling of Gas-Plasma Generated THz Radiation. , 2021, , .		0
105	Thermally induced index gratings in few-mode high-power fiber laser systems. , 2012, , .		0
106	Thermal Waveguide Changes in High Power Fiber Lasers. , 2012, , .		0
107	Experimental Study of Mode Instabilities in High Power Fiber Amplifiers. , 2012, , .		0
108	Recent Developments in Fiber Lasers and Mode Stability Issues in LMA Fibers. , 2012, , .		0

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109	Nonlinear compression of ultrashort pulses from a high repetition rate Tm-doped fiber laser to sub-5 cycle duration. , 2015, , .		0
110	Quantum Limits of Coherent Beam Combining. , 2018, , .		0
111	Ultrafast Tm-doped fiber CPA system delivering GW-level peak power pulses at > 100 W average power. , 2020, , .		0