Xing Fu

List of Publications by Year in descending order

118 papers	3,220 citations	201385 27 h-index	168136 53 g-index
119 all docs	119 docs citations	119 times ranked	1986 citing authors

#	Article	IF	Citations
1	Optical vortices 30 years on: OAM manipulation from topological charge to multiple singularities. Light: Science and Applications, 2019, 8, 90.	7.7	1,151
2	High Power Self-Q-Switching in Nd:LuAG Laser. IEEE Photonics Journal, 2018, 10, 1-9.	1.0	91
3	Over 8 W high peak power UV laser with a high power Q-switched Nd:YVO₄oscillator and the compact extra-cavity sum-frequency mixing. Laser Physics Letters, 2009, 6, 93-97.	0.6	87
4	Structured ray-wave vector vortex beams in multiple degrees of freedom from a laser. Optica, 2020, 7, 820.	4.8	82
5	High-energy, phase-stable, ultrabroadband kHz OPCPA at 21 Î¼m pumped by a picosecond cryogenic Yb:YAG laser. Optics Express, 2011, 19, 15538.	1.7	76
6	Versatile on-chip light coupling and (de)multiplexing from arbitrary polarizations to controlled waveguide modes using an integrated dielectric metasurface. Photonics Research, 2020, 8, 564.	3.4	74
7	Wavelength-tunable Hermiteâ€“Gaussian modes and an orbital-angular-momentum-tunable vortex beam in a dual-off-axis pumped Yb:CALGO laser. Optics Letters, 2018, 43, 291.	1.7	70
8	Creation and control of high-dimensional multi-partite classically entangled light. Light: Science and Applications, 2021, 10, 50.	7.7	61
9	35.1 W all-solid-state 355 nm ultraviolet laser. Laser Physics Letters, 0, 7, 563-568.	0.6	54
10	SU(2) PoincarÃ© sphere: A generalized representation for multidimensional structured light. Physical Review A, 2020, 102, .	1.0	51
11	2D group-VA fluorinated antimonene: synthesis and saturable absorption. Nanoscale, 2019, 11, 1762-1769.	2.8	49
12	Divergence-degenerate spatial multiplexing towards future ultrahigh capacity, low error-rate optical communications. Light: Science and Applications, 2022, 11, 144.	7.7	45
13	Vortex lattices with transverse-mode-locking states switching in a large-aperture off-axis-pumped solid-state laser. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 2940.	0.9	42
14	3kW liquidâ€“cooled elastically-supported Nd:YAG multi-slab CW laser resonator. Optics Express, 2014, 22, 18421.	1.7	41
15	Waveguide Engineering of Graphene Optoelectronicsâ€”Modulators and Polarizers. IEEE Photonics Journal, 2018, 10, 1-17.	1.0	40
16	Hybrid topological evolution of multi-singularity vortex beams: generalized nature for helical-Inceâ€“Gaussian and Hermiteâ€“Laguerreâ€“Gaussian modes. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 578.	0.8	38
17	Effects of the temperature dependence of absorption coefficients in edge-pumped Yb:YAG slab lasers. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 2081.	0.9	37
18	183 WTEM00 mode acoustic-optic Q-switched MOPA laser at 850 kHz. Optics Express, 2009, 17, 5636.	1.7	36

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19	High-slope-efficiency 206â€‰â€‰Î¼m Ho: YLF laser in-band pumped by a fiber-coupled broadband diode. Optics Letters, 2016, 41, 1237.	1.7	33
20	Chip-integrated metasurface for versatile and multi-wavelength control of light couplings with independent phase and arbitrary polarization. Optics Express, 2019, 27, 16425.	1.7	33
21	Edge-pumped asymmetric Yb:YAG/YAG thin disk laser. Laser Physics Letters, 2007, 4, 719-721.	0.6	31
22	Truncated triangular diffraction lattices and orbital-angular-momentum detection of vortex SU(2) geometric modes. Optics Express, 2018, 26, 25545.	1.7	31
23	A 108 W, 500 kHz Q-switching Nd:YVO_4 laser with the MOPA configuration. Optics Express, 2008, 16, 3356.	1.7	30
24	High peak power picosecond hybrid fiber and solid-state amplifier system. Laser Physics Letters, 2010, 7, 644-649.	0.6	30
25	Ultracompact Graphene-Assisted Tunable Waveguide Couplers with High Directivity and Mode Selectivity. Scientific Reports, 2018, 8, 13362.	1.6	30
26	103 W high beam quality green laser with an extra- cavity second harmonic generation. Optics Express, 2008, 16, 14335.	1.7	29
27	Polygonal Vortex Beams. IEEE Photonics Journal, 2018, 10, 1-16.	1.0	29
28	Index-Tunable Structured-Light Beams from a Laser with an Intracavity Astigmatic Mode Converter. Physical Review Applied, 2020, 14, .	1.5	29
29	Deep-learning-based recognition of multi-singularity structured light. Nanophotonics, 2022, 11, 779-786.	2.9	29
30	High energy <scp>LiDAR</scp> source for long distance, high resolution range imaging. Microwave and Optical Technology Letters, 2020, 62, 3655-3661.	0.9	27
31	Digitally tailoring arbitrary structured light of generalized ray-wave duality. Optics Express, 2020, 28, 31043.	1.7	27
32	Gain guiding effect in end-pumped Nd:YVO_4 MOPA lasers. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1286.	0.9	25
33	12 J, 10 Hz diode-pumped Nd:YAG distributed active mirror amplifier chain with ASE suppression. Optics Express, 2017, 25, 21981.	1.7	25
34	High-repetition-rate high-beam-quality 43ÂW ultraviolet laser withÂextra-cavity third harmonic generation. Applied Physics B: Lasers and Optics, 2009, 95, 323-328.	1.1	23
35	Periodic-trajectory-controlled, coherent-state-phase-switched, and wavelength-tunable SU(2) geometric modes in a frequency-degenerate resonator. Applied Optics, 2018, 57, 9543.	0.9	23
36	Analysis of wavefront aberration induced by turbulent flow field in liquid-convection-cooled disk laser. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2161.	0.9	22

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37	Numerical simulation of 30-kW class liquid-cooled Nd:YAG multi-slab resonator. Optics Express, 2015, 23, 18458.	1.7	22
38	Adaptive strategy for CPPM single-photon collision avoidance LIDAR against dynamic crosstalk. Optics Express, 2017, 25, 12237.	1.7	22
39	Astigmatic hybrid SU(2) vector vortex beams: towards versatile structures in longitudinally variant polarized optics. Optics Express, 2021, 29, 315.	1.7	22
40	100 â€‰Î¼J pulse energy in burst-mode-operated hybrid fiber-bulk amplifier system with envelope shaping. Optics Express, 2017, 25, 13557.	1.7	21
41	Comparative investigation on performance of acousto-optically Q-switched dual-rod Nd:YAGâˆ’Nd:YVO_4 laser and dual-rod Nd:YVO_4âˆ’Nd:YVO_4 laser. Applied Optics, 2010, 49, 4131.	2.1	20
42	Direct-liquid-cooled Nd:YAG thin disk laser oscillator. Applied Physics B: Lasers and Optics, 2013, 111, 517-521.	1.1	20
43	120ÂW high repetition rate Nd:YVO4 MOPA laser with a Nd:YAG cavity-dumped seed laser. Applied Physics B: Lasers and Optics, 2009, 95, 63-67.	1.1	18
44	High repetition rate dual-rod acousto-optics Q-switched composite Nd:YVO4 laser. Optics Express, 2009, 17, 21956.	1.7	18
45	Gain-phase modulation in chirped-pulse amplification. Physical Review A, 2017, 96, .	1.0	18
46	Spatial dynamic thermal iteration model for 888 nm end-pumped Nd:YVO 4 solid-state laser oscillators and amplifiers. Optics Communications, 2017, 383, 430-440.	1.0	18
47	1 mJ, 500 kHz Nd:YAG/Nd:YVO4 MOPA laser with a Nd:YAG cavity-dumping seed laser. Laser Physics, 2010, 20, 1707-1711.	0.6	17
48	Non-line-of-sight reconstruction with signalâ€“object collaborative regularization. Light: Science and Applications, 2021, 10, 198.	7.7	17
49	Active pulse shaping for end-pumped Nd:YVO_4 amplifier with high gain. Optics Letters, 2017, 42, 1051.	1.7	16
50	Subâ€•nanosecond, single longitudinal mode laser based on a <scp>VBG</scp>â€•coupled <scp>EOQ</scp> Nd:<scp>YVO₄</scp> oscillator for remote sensing. Microwave and Optical Technology Letters, 2021, 63, 2541-2547.	0.9	15
51	50 mm-aperture Nd:LuAG ceramic nanosecond laser amplifier producing 10 J at 10 Hz. Optics Express, 2019, 27, 15595.	1.7	15
52	Numerical modeling of the thermal lensing effect in a grazing-incidence laser. Optics Communications, 2009, 282, 1851-1857.	1.0	14
53	Design of High-Gain Single-Stage and Single-Pass Nd:YVO₄ Amplifier Pumped by Fiber-Coupled Laser Diodes: Simulation and Experiment. IEEE Journal of Quantum Electronics, 2016, 52, 1-10.	1.0	14
54	1.57 times diffraction-limit high-energy laser based on a Nd:YAG slab amplifier and an adaptive optics system. Chinese Optics Letters, 2019, 17, 051403.	1.3	14

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55	2 MHz AO Q-switched ${m TEM}_{00}$ Grazing Incidence Laser With 3 at.% Neodymium Doped Nd:YVO$_{4}$. IEEE Journal of Quantum Electronics, 2008, 44, 1164-1170.	1.0	13
56	Resonantly Fiber-Coupled Diode-Pumped Ho³⁺: YLiF₄Laser in Continuous-Wave and Q-Switched Operation. IEEE Journal of Quantum Electronics, 2016, 52, 1-8.	1.0	13
57	Quadrant-separable multi-singularity vortices manipulation by coherent superposed mode with spatial-energy mismatch. Optics Express, 2018, 26, 34940.	1.7	12
58	Ultra-low power anti-crosstalk collision avoidance light detection and ranging using chaotic pulse position modulation approach. Chinese Physics B, 2016, 25, 074207.	0.7	11
59	Dual-wavelength vortex beam with high stability in a diode-pumped Yb:CaGdAlO₄laser. Laser Physics Letters, 2018, 15, 055803.	0.6	11
60	Single-Photon Detection Approach for Autonomous Vehicles Sensing. IEEE Transactions on Vehicular Technology, 2020, 69, 6067-6078.	3.9	11
61	Large-aperture end-pumped Nd:YAG thin-disk laser directly cooled by liquid. Chinese Optics Letters, 2013, 11, 041408-41411.	1.3	11
62	500 W Nd:YAG zigzag slab MOPA laser. Laser Physics, 2009, 19, 1974-1976.	0.6	10
63	High-efficiency 2 J, 20 Hz diode-pumped Nd:YAG active-mirror master oscillator power amplifier system. Applied Physics Express, 2015, 8, 092702.	1.1	10
64	Efficient sub-joule energy extraction from a diode-pumped Nd:LuAG amplifier seeded by a Nd:YAG laser. Optics Letters, 2016, 41, 5322.	1.7	10
65	Performance scaling of high-power picosecond cryogenically cooled rod-type Yb:YAG multipass amplification. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2798.	0.9	9
66	Spectra- and temperature-dependent dynamics of directly end-pumped holmium lasers. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	9
67	Four-Dimensional Thermal Analysis of 888 nm Pumped Nd:YVO4 Dual-Rod Acousto-Optic Q-Switched Laser. Applied Sciences (Switzerland), 2017, 7, 470.	1.3	9
68	Beam quality improvement by population-dynamic-coupled combined guiding effect in end-pumped Nd:YVO4 laser oscillator. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	9
69	Multipartite classically entangled scalar beams. Optics Letters, 2022, 47, 2052.	1.7	9
70	Fast non-line-of-sight imaging based on first photon event stamping. Optics Letters, 2022, 47, 1928.	1.7	8
71	High-energy single longitudinal mode 1Âns all-solid-state 266Ânm lasers. Applied Physics B: Lasers and Optics, 2007, 89, 155-158.	1.1	7
72	Pushing the limit of pulse duration in Q-switched solid-state lasers with high gain. Optics and Laser Technology, 2020, 129, 106276.	2.2	7

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73	Large-scale, high-contrast glare suppression with low-transmittance eigenchannels of aperture-target transmission matrices. Optics Letters, 2021, 46, 1498.	1.7	7
74	To unify azimuthally traveling-wave and standing-wave structured light by ray-wave duality. Journal of Optics (United Kingdom), 2021, 23, 115604.	1.0	7
75	Wavefront aberration induced by beam passage through a water-convection-cooled Nd:YAG thin disk. Journal of Optics (United Kingdom), 2013, 15, 055704.	1.0	6
76	Gain change by adjusting the pumping wavelength in an end-pumped Nd:YVO_4 amplifier. Applied Optics, 2016, 55, 4946.	2.1	6
77	End-pumped Nd:YAG zigzag slab laser with weak pump absorption. Chinese Optics Letters, 2009, 7, 492-494.	1.3	5
78	Effects of turbulent flow field on wavefront aberration in liquid-convection-cooled disk laser oscillator. Applied Physics B: Lasers and Optics, 2015, 119, 371-380.	1.1	5
79	Theoretical and experimental analysis of high-power frequency-stabilized semiconductor master oscillator power-amplifier system. Applied Optics, 2016, 55, 2909.	2.1	5
80	Determination of Thermal Lensing and Dynamic Operating Point of Quasi-Concentric Laser Resonator With Line-Shaped End-Pumping Profile: The Influence of ${m TEM}_{00}$ Beam Size. IEEE Journal of Quantum Electronics, 2010, 46, 1568-1576.	1.0	4
81	Generation of Watt-Level 2.06- mu m Polarized Light From Diode Wing-Pumped Ho:YLF Laser. IEEE Photonics Technology Letters, 2017, 29, 1695-1698.	1.3	4
82	Compact Ho:YAG Laser at 2.1-<inline-formula> <tex-math notation="LaTeX">mu </tex-math> </inline-formula>m Mode Locked by Re-Absorption. IEEE Photonics Technology Letters, 2019, 31, 222-225.	1.3	4
83	Symmetric TEM_00 output from Q-switched quasi-concentric laser resonator with line-shaped end-pumping profile. Optics Express, 2010, 18, 21047.	1.7	3
84	Cr^2+: CdSe passively Q-switched Ho: YAG laser. Optics Letters, 2017, 42, 2555.	1.7	3
85	Temporally Programmable Hybrid MOPA Laser with Arbitrary Pulse Shape and Frequency Doubling. Applied Sciences (Switzerland), 2017, 7, 892.	1.3	3
86	Design of ultrahigh energy laser amplifier system with high storage energy extraction. Applied Optics, 2013, 52, 394.	0.9	2
87	Ultrahigh-efficiency 4-J, 10-Hz, Nd:YAG quasi-continuous-wave active mirror oscillator. Applied Physics B: Lasers and Optics, 2015, 121, 453-457.	1.1	2
88	High-Brightness Semiconductor Laser-Pumped $1.56~mu$ m Polarization-Entangled Photon Pairs. IEEE Journal of Quantum Electronics, 2017, 53, 1-6.	1.0	2
89	Deterministic Optical Rogue Waves in Nd:YVO4 Lasers Induced by Near-Degenerate Transverse Modes. IEEE Journal of Quantum Electronics, 2020, 56, 1-5.	1.0	2
90	Classically Entangled Vectorial Structured Light towards Multiple Degrees of Freedom and Higher Dimensions. , 2021, , .		2

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91	Nanosecond Self-Q-Switching Nd:Luag Laser With High Repetition Rate. IEEE Photonics Journal, 2021, 13, 1-8.	1.0	2
92	Digitally controlled ray-wave geometric beams as higher-dimensional information carriers. , 2021, , .		2
93	Anti-dynamic-crosstalk method for single photon LIDAR detection. , 2017, , .		2
94	Transverse Traveling-Wave and Standing-Wave Ray-Wave Geometric Beams. Frontiers in Photonics, 2022, 3, .	1.1	2
95	Single-Side-Pumped Slab Laser Amplifier Chain: Design and Numerical Modeling. IEEE Journal of Quantum Electronics, 2010, 46, 1197-1205.	1.0	1
96	High power composite Nd:YAG/YAG zigzag dual-slab laser oscillator. Laser Physics, 2011, 21, 48-51.	0.6	1
97	Nd:GdVO4 slab laser with line-shaped end-pumping profile operating at 912 nm. Laser Physics, 2011, 21, 855-860.	0.6	1
98	Optimal design of ultrahigh-energy laser amplifier chain with high storage energy extraction. Applied Optics, 2013, 52, 7942.	0.9	1
99	Spatiotemporal characterization of laser pulse amplification in double-pass active mirror geometry. High Power Laser Science and Engineering, 2020, 8, .	2.0	1
100	Lensless compressive sensing with annulus-sector-shaped pixel geometry in the photon-starved environment. Optics and Lasers in Engineering, 2020, 134, 106232.	2.0	1
101	Combination of differential discrimination and direct discrimination in pulsed laser time-of-flight systems. Chinese Optics Letters, 2016, 14, 062801-62805.	1.3	1
102	Dependence of curvature type of thermal lensing on number of bounces in a zigzag slab laser: numerical modeling. Chinese Physics B, 2011, 20, 114210.	0.7	0
103	Distributed-Side-Pumped Slab Lasers: Theoretical Design and Modeling. IEEE Journal of Quantum Electronics, 2011, 47, 479-485.	1.0	0
104	Variation of thermal lens curvature type between the convex and the concave lens for zigzag slab laser. , 2012, , .		0
105	Design and modeling of 10-kW level single-side-pumped slab laser amplifier chain. Proceedings of SPIE, 2012, , .	0.8	0
106	Q-switched quasi-concentric laser resonator with line-shaped end-pumping profile: power-insensitive operating point and symmetrized TEM00 output. , 2012, , .		0
107	Modeling of distributed-side-pumped slab lasers: power scaling by adding slab units. , 2012, , .		0
108	A novel CPPM anti-crosstalk collision avoidance lidar with ultra-low laser power. , 2016, , .		0

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109	To unify travelling- and standing-wave ray-wave structured light by coherent wave packets. , 2021, , .		0
110	Intracavity-Mode-Conversion Structured-Light Laser. , 2021, , .		0
111	High-energy, Few-cycle, kHz OPCPA at 2.1 Î¼m Pumped by a Picosecond Cryogenic Yb:YAG Laser. , 2011, , .		0
112	TEM00 Quasi-concentric Laser Resonator with Line-shaped End-pumping Profile: Power-insensitive Operating Point. , 2011, , .		0
113	CEP-Stable, Few-Cycle, kHz OPCPAs for Attosecond Science: Energy Scaling and Coherent Sub-Cycle Pulse Synthesis. Springer Proceedings in Physics, 2012, , 33-40.	0.1	0
114	Vortex Lattices with Transverse-Mode-Locking States Switching in Large-Aperture-Pumped Yb:CALGO Laser. , 2018, , .		0
115	Generation of polygonal vortex beams in quasi-frequency- degenerate states of Yb:CALGO laser. , 2018, , .		0
116	Gain-Phase Modulation in Chirped-Pulse Amplification. , 2019, , .		0
117	Chip-scale mode-configurable light couplers and vortex beam generators using waveguide-integrated metasurface. , 2020, , .		0
118	Hybrid Nd:YAG/Nd:LuAG Nanosecond Laser Oscillator and Amplifier. Frontiers in Physics, 0, 10, .	1.0	0