

# Weidong Chen

## List of Publications by Year in descending order

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85  
papers

1,534  
citations

331670

21  
h-index

377865

34  
g-index

102  
all docs

102  
docs citations

102  
times ranked

1096  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly sensitive detection of methane by near-infrared laser absorption spectroscopy using a compact dense-pattern multipass cell. <i>Sensors and Actuators B: Chemical</i> , 2015, 220, 1000-1005.	7.8	150
2	Yellow-light generation of 57 W by intracavity doubling self-Raman laser of YVO <sub>4</sub> /Nd:YVO <sub>4</sub> composite. <i>Optics Letters</i> , 2009, 34, 2763.	3.3	76
3	Short-lived species detection of nitrous acid by external-cavity quantum cascade laser based quartz-enhanced photoacoustic absorption spectroscopy. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	70
4	Sub-100-fs Tm:MgWO <sub>4</sub> laser at 2017-nm mode locked by a graphene saturable absorber. <i>Optics Letters</i> , 2017, 42, 3076.	3.3	57
5	Development and deployment of a cavity enhanced UV-LED spectrometer for measurements of atmospheric HONO and NO <sub>2</sub> in Hong Kong. <i>Atmospheric Environment</i> , 2014, 95, 544-551.	4.1	50
6	Wavelength-Resolved Optical Extinction Measurements of Aerosols Using Broad-Band Cavity-Enhanced Absorption Spectroscopy over the Spectral Range of 445-480 nm. <i>Analytical Chemistry</i> , 2013, 85, 2260-2268.	6.5	49
7	The influence of photochemical aging on light absorption of atmospheric black carbon and aerosol single-scattering albedo. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 16829-16844.	4.9	40
8	SESAM mode-locked Tm:LuYO <sub>3</sub> ceramic laser generating 54-fs pulses at 2048-nm. <i>Applied Optics</i> , 2020, 59, 10493.	1.8	40
9	Optical properties of atmospheric fine particles near Beijing during the HOPE-J&lt;sup&gt;3&gt;A campaign. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 6421-6439.	4.9	38
10	Portable broadband cavity-enhanced spectrometer utilizing Kalman filtering: application to real-time, in situ monitoring of glyoxal and nitrogen dioxide. <i>Optics Express</i> , 2017, 25, 26910.	3.4	37
11	Identification of cancerous gastric cells based on common features extracted from hyperspectral microscopic images. <i>Biomedical Optics Express</i> , 2015, 6, 1135.	2.9	36
12	Crystal growth, optical spectroscopy and laser action of Tm <sup>3+</sup> -doped monoclinic magnesium tungstate. <i>Optics Express</i> , 2017, 25, 3682.	3.4	36
13	Fabrication and planar waveguide laser behavior of YAG/Nd:YAG/YAG composite ceramics by tape casting. <i>Journal of Alloys and Compounds</i> , 2015, 640, 317-320.	5.5	34
14	67-fs pulse generation from a mode-locked Tm,Ho:CLNGG laser at 2083 nm. <i>Optics Express</i> , 2019, 27, 1922.	3.4	32
15	Second-Stokes YVO <sub>4</sub> /Nd:YVO <sub>4</sub> /YVO <sub>4</sub> self-frequency Raman laser. <i>Optics Letters</i> , 2012, 37, 1968.	3.3	29
16	Sensing atmospheric reactive species using light emitting diode by incoherent broadband cavity enhanced absorption spectroscopy. <i>Optics Express</i> , 2016, 24, A781.	3.4	27
17	Characterization of growth, optical properties, and laser performance of monoclinic Yb:MgWO <sub>4</sub> crystal. <i>Optical Materials Express</i> , 2016, 6, 1627.	3.0	26
18	SWCNT-SA mode-locked Tm:LuYO <sub>3</sub> ceramic laser delivering 8-optical-cycle pulses at 2.05-μm. <i>Optics Letters</i> , 2020, 45, 459.	3.3	26

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19	Dual-Gas Sensor of CH <sub>4</sub> /C <sub>2</sub> H <sub>6</sub> Based on Wavelength Modulation Spectroscopy Coupled to a Home-Made Compact Dense-Pattern Multipass Cell. <i>Sensors</i> , 2019, 19, 820.	3.8	25
20	Li <sub>2</sub> Gd <sub>4</sub> (MoO <sub>4</sub> ) <sub>7</sub> crystal preparation and spectral properties applied to 2.0 μm lasers. <i>CrystEngComm</i> , 2018, 20, 6472-6481.	2.6	24
21	Structured laser beams: toward 2-μm femtosecond laser vortices. <i>Photonics Research</i> , 2021, 9, 357.	7.0	24
22	YVO <sub>4</sub> Raman laser pumped by a passively Q-switched Yb:YAG laser. <i>Optics Express</i> , 2017, 25, 14033.	3.4	21
23	Sub-50 fs pulse generation from a SESAM mode-locked Tm,Ho-codoped calcium aluminate laser. <i>Optics Letters</i> , 2021, 46, 2642.	3.3	21
24	Polarized spectroscopy and SESAM mode-locking of Tm,Ho:CALGO. <i>Optics Express</i> , 2022, 30, 7883.	3.4	21
25	Spectroscopic properties and energy transfers in Cr, Tm, Ho triple-doped Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> transparent ceramics. <i>Optical Materials Express</i> , 2013, 3, 2037.	3.0	20
26	Disordered Tm <sup>3+</sup> ,Ho <sup>3+</sup> -codoped CNGG garnet crystal: Towards efficient laser materials for ultrashort pulse generation at 2 μm. <i>Journal of Alloys and Compounds</i> , 2021, 853, 157100.	5.5	20
27	Enhancing off-axis integrated cavity output spectroscopy (OA-ICOS) with radio frequency white noise for gas sensing. <i>Optics Express</i> , 2019, 27, 30517.	3.4	20
28	Kerr-lens mode-locked Tm-doped sesquioxide ceramic laser. <i>Optics Letters</i> , 2021, 46, 3428.	3.3	19
29	High-sensitivity off-axis integrated cavity output spectroscopy implementing wavelength modulation and white noise perturbation. <i>Optics Letters</i> , 2019, 44, 3298.	3.3	19
30	Monoclinic Tm:MgWO <sub>4</sub> crystal: Crystal-field analysis, tunable and vibronic laser demonstration. <i>Journal of Alloys and Compounds</i> , 2018, 763, 581-591.	5.5	18
31	Growth, spectroscopy and first laser operation of monoclinic Ho <sup>3+</sup> :MgWO <sub>4</sub> crystal. <i>Journal of Luminescence</i> , 2019, 213, 316-325.	3.1	18
32	Monoclinic Tm <sup>3+</sup> :MgWO <sub>4</sub> : a promising crystal for continuous-wave and passively Q-switched lasers at 2 μm. <i>Optics Letters</i> , 2017, 42, 1177.	3.3	17
33	Three-wavelength cavity-enhanced albedometer for measuring wavelength-dependent optical properties and single-scattering albedo of aerosols. <i>Optics Express</i> , 2018, 26, 33484.	3.4	16
34	35 W continuous-wave Ho:YAG single-crystal fiber laser. <i>High Power Laser Science and Engineering</i> , 2020, 8, .	4.6	16
35	Development of an incoherent broad-band cavity-enhanced aerosol extinction spectrometer and its application to measurement of aerosol optical hygroscopicity. <i>Applied Optics</i> , 2017, 56, E16.	2.1	15
36	Diode-pumped tape casting planar waveguide YAG/Nd:YAG/YAG ceramic laser. <i>Optics Express</i> , 2015, 23, 8104.	3.4	14

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37	Tm:YAG single-crystal fiber laser. <i>Optics Letters</i> , 2021, 46, 4454.	3.3	14
38	Watt-level femtosecond Tm-doped $\text{La}_2\text{O}_3$ -sesquioxide ceramic laser in-band pumped by a Raman fiber laser at 1627 nm. <i>Optics Express</i> , 2022, 30, 23978.	3.4	14
39	Composite Yb:YAG/Cr <sup>4+</sup> :YAG/YAG crystal passively Q-switched lasers at 1030 nm. <i>Applied Optics</i> , 2015, 54, 1834.	1.8	13
40	Direct generation of an optical vortex beam from a diode-pumped Yb:MgWO <sub>4</sub> laser. <i>Laser Physics Letters</i> , 2017, 14, 085807.	1.4	13
41	Measurement of the D/H, 18O/16O, and 17O/16O Isotope Ratios in Water by Laser Absorption Spectroscopy at 2.73 $\mu\text{m}$ . <i>Sensors</i> , 2014, 14, 9027-9045.	3.8	12
42	Narrow-band periodically poled lithium niobate nonresonant optical parametric oscillator. <i>Optics Letters</i> , 2019, 44, 5659.	3.3	12
43	Single-walled carbon-nanotube saturable absorber assisted Kerr-lens mode-locked Tm:MgWO <sub>4</sub> laser. <i>Optics Letters</i> , 2020, 45, 6142.	3.3	11
44	Kerr-lens mode-locked Yb:SrLaAlO <sub>4</sub> laser. <i>Optics Express</i> , 2021, 29, 42837.	3.4	11
45	Manipulation of linearly polarized states in a diode-pumped YAG/Tm:YAG/YAG bulk laser. <i>Optics Letters</i> , 2014, 39, 1945.	3.3	10
46	Crystal growth, spectroscopy and first laser operation of a novel disordered tetragonal Tm:Na <sub>2</sub> La <sub>4</sub> (WO <sub>4</sub> ) <sub>7</sub> tungstate crystal. <i>Journal of Luminescence</i> , 2018, 203, 676-682.	3.1	10
47	A novel solid-solution garnet Yb:YAG-MnASG with enhanced spectral properties. <i>Journal of Alloys and Compounds</i> , 2019, 786, 77-83.	5.5	10
48	Spectroscopy and high-power laser operation of a monoclinic Yb <sup>3+</sup> :MgWO <sub>4</sub> crystal. <i>Optics Letters</i> , 2020, 45, 1770.	3.3	10
49	Circular Regression in a Dual-Phase Lock-In Amplifier for Coherent Detection of Weak Signal. <i>Sensors</i> , 2017, 17, 2615.	3.8	9
50	A Dual-Laser Sensor Based on Off-Axis Integrated Cavity Output Spectroscopy and Time-Division Multiplexing Method. <i>Sensors</i> , 2020, 20, 6192.	3.8	9
51	Simultaneous measurements of the relative-humidity-dependent aerosol light extinction, scattering, absorption, and single-scattering albedo with a humidified cavity-enhanced albedometer. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 2623-2634.	3.1	9
52	Diode-pumped sub-50-fs Kerr-lens mode-locked Yb:GdYCOB laser. <i>Optics Express</i> , 2021, 29, 13496.	3.4	9
53	Intercomparison of IBBCEAS, NitroMAC and FTIR analyses for HONO, NO <sub>2</sub> and CH <sub>2</sub> O measurements during the reaction of NO <sub>2</sub> with H <sub>2</sub> O vapour in the simulation chamber CESAM. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 5701-5715.	3.1	9
54	Sub-100 fs mode-locked Tm:CLTGG laser. <i>Optics Express</i> , 2021, 29, 31137.	3.4	9

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55	Diode-pumped mode-locked Yb:BaF <sub>2</sub> laser. Optics Express, 2022, 30, 15807.	3.4	9
56	SESAM mode-locked Yb:GdYCOB femtosecond laser. Optical Materials Express, 2017, 7, 3791.	3.0	8
57	Growth, spectroscopy, and laser operation of mixed vanadate crystals Yb:Lu <sub>1-x</sub> YxLaYVO <sub>4</sub> . Optical Materials Express, 2018, 8, 493.	3.0	8
58	SESAM mode-locked Yb:Sr <sub>3</sub> Y <sub>2</sub> (BO <sub>3</sub> ) <sub>4</sub> laser. Optics Express, 2022, 30, 11861.	3.4	8
59	Spontaneous picosecond pulse generation in a diode-pumped Nd:YAP laser. Optics Express, 2013, 21, 25091.	3.4	7
60	Continuous-wave and SESAM mode-locked femtosecond operation of a Yb:MgWO <sub>4</sub> laser. Optics Express, 2017, 25, 11827.	3.4	7
61	Impact of Lock-In Time Constant on Remote Monitoring of Trace Gas in the Atmospheric Column Using Laser Heterodyne Radiometer (LHR). Remote Sensing, 2022, 14, 2923.	4.0	7
62	SWCNT-SA mode-locked Tm,Ho:LCLNGG laser. Optics Express, 2021, 29, 40323.	3.4	6
63	Coherent combination of two intracavity eigenmodes producing linearly polarized emission in an isotropic laser. Optics Express, 2020, 28, 34337.	3.4	6
64	Achievement of an efficient 1053 nm Nd:YLF polarized laser based on different thermal lensing effects. Journal of Optics (United Kingdom), 2012, 14, 095201.	2.2	5
65	Comparative investigation of diode-wing-pumped Tm:Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> laser between composite and non-composite crystal. Optics and Laser Technology, 2014, 63, 132-136.	4.6	5
66	Power-scalable sub-100-fs Tm laser at 2.08 $\mu$ m. High Power Laser Science and Engineering, 0, , 1-20.	4.6	5
67	Nanosecond optical parametric oscillator with midinfrared intracavity difference-frequency mixing in orientation-patterned GaAs. Optics Letters, 2021, 46, 332.	3.3	5
68	Continuous-wave and SESAM mode-locked operation of the Yb:Bi <sub>4</sub> Si <sub>3</sub> O <sub>12</sub> laser. Optics Express, 2021, 29, 105.	3.4	5
69	Spectroscopy and efficient laser operation of cleaving Yb:KY(MoO <sub>4</sub> ) <sub>2</sub> crystal. Optical Materials Express, 2020, 10, 2356.	3.0	5
70	Polarized spectroscopy and diode-pumped laser operation of disordered Yb:Ca <sub>3</sub> Gd <sub>2</sub> (BO <sub>3</sub> ) <sub>4</sub> crystal. Optical Materials Express, 2022, 12, 673.	3.0	5
71	Diode-pumped SESAM mode-locked Yb:(Y,Gd)AlO <sub>3</sub> laser. Optics Express, 2022, 30, 11825.	3.4	5
72	Low-loss fs-laser-written surface waveguide lasers at $>2\ \mu$ m in monoclinic Tm <sup>3+</sup> :MgWO <sub>4</sub> . Optics Letters, 2020, 45, 4060.	3.3	4

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73	SESAM Mode-Locked Yb:Ca <sub>3</sub> Gd <sub>2</sub> (BO <sub>3</sub> ) <sub>4</sub> Femtosecond Laser. Applied Sciences (Switzerland), 2021, 11, 9464.	2.5	4
74	SESAM mode-locked Yb:SrLaAlO <sub>4</sub> laser. Optics Express, 2021, 29, 43820.	3.4	4
75	Kerr-lens mode-locked ytterbium-activated orthoaluminate laser. Optics Letters, 2022, 47, 3027.	3.3	4
76	Tm <sup>3+</sup> -doped calcium lithium tantalum gallium garnet (Tm:CLTGG): novel laser crystal. Optical Materials Express, 2021, 11, 2938.	3.0	3
77	Absolute determination of chemical kinetic rate constants by optical tracking the reaction on the second timescale using cavity-enhanced absorption spectroscopy. Physical Chemistry Chemical Physics, 2022, 24, 7396-7404.	2.8	3
78	Growth, structure, and polarized spectroscopy of monoclinic Er <sup>3+</sup> :MgWO <sub>4</sub> crystal. Optical Materials Express, 2022, 12, 2028.	3.0	3
79	Spectra and broad-spectral laser operation of a disordered Nd:LiLa(MoO <sub>4</sub> ) <sub>2</sub> crystal. Journal of Modern Optics, 2013, 60, 920-924.	1.3	2
80	Soliton mode-locked Yb:Ca <sub>3</sub> Gd <sub>2</sub> (BO <sub>3</sub> ) <sub>4</sub> laser. Optics Express, 2022, 30, 11833.	3.4	2
81	Efficient end-pumped multi-wavelength laser operation of disordered Nd:LiGd(WO <sub>4</sub> ) <sub>2</sub> crystal. Laser Physics, 2013, 23, 095807.	1.2	1
82	Graphene mode-locked Tm,Ho-codoped crystalline garnet laser producing 70-fs pulses near 21 μm. OSA Continuum, 2019, 2, 2593.	1.8	1
83	Diode-pumped and tunable laser operation of Tm,Ho-codoped modified CNGG-type disordered crystals. , 2022, , .		0
84	Disordered Yb:GdYCOB crystal: polarized spectroscopy, thermal lensing and diode-pumped lasers. , 2022, , .		0
85	Continuous-wave and passively mode-locked operation of Yb:Ca <sub>3</sub> Gd <sub>2</sub> (BO <sub>3</sub> ) <sub>4</sub> laser. , 2022, , .		0