Hong X Tang

List of Publications by Year
in descending order

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144 papers	8,213 citations	41323 49 h-index	49868 87 g-index
149 all docs	149 docs citations	149 times ranked	5027 citing authors

#	Article	IF	Citations
1	2022 Roadmap on integrated quantum photonics. JPhys Photonics, 2022, 4, 012501.	2.2	152
2	Quadratic strong coupling in AlN Kerr cavity solitons. Optics Letters, 2022, 47, 746.	1.7	8
3	Microwave to optical quantum conversion. , 2022, , .		0
4	Planar-Integrated Magneto-Optical Trap. Physical Review Applied, 2022, 17, .	1.5	20
5	Cavity magnonics. Physics Reports, 2022, 979, 1-61.	10.3	140
6	Pockels soliton microcomb. Nature Photonics, 2021, 15, 21-27.	15.6	97
7	Photorefraction-induced Bragg scattering in cryogenic lithium niobate ring resonators. Optics Letters, 2021, 46, 432.	1.7	6
8	Stable tuning of photorefractive microcavities using an auxiliary laser. Optics Letters, 2021, 46, 328.	1.7	7
9	AlN nonlinear optics and integrated photonics. Semiconductors and Semimetals, 2021, 107, 223-281.	0.4	1
10	On-chip lithium niobate optical parametric oscillator with micro-watts threshold. , 2021, , .		1
11	Quantum Engineering With Hybrid Magnonic Systems and Materials <i>(Invited Paper)</i>. IEEE Transactions on Quantum Engineering, 2021, 2, 1-36.	2.9	69
12	Mitigating photorefractive effect in thin-film lithium niobate microring resonators. Optics Express, 2021, 29, 5497.	1.7	37
13	Efficient Frequency Conversion in a Degenerate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Ï‡</mml:mi><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mn>2</mml:mn><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 252 Td (stretchy="false" Letters, 2021, 126, 133601.	2.9	27
14	Ultralow-threshold thin-film lithium niobate optical parametric oscillator. Optica, 2021, 8, 539.	4.8	82
15	Noiseless photonic non-reciprocity via optically-induced magnetization. Nature Communications, 2021, 12, 2389.	5.8	28
16	Quantum Microwave Radiometry with a Superconducting Qubit. Physical Review Letters, 2021, 126, 180501.	2.9	13
17	Photonic integration of Er³⁺:Y₂SiO₅ with thin-film lithium niobate by flip chip bonding. Optics Express, 2021, 29, 15497.	1.7	6
18	Cavity electro-optic circuit for microwave-to-optical conversion in the quantum ground state. Physical Review A, 2021, 103, .	1.0	26

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19	Bidirectional interconversion of microwave and light with thin-film lithium niobate. Nature Communications, 2021, 12, 4453.	5.8	51
20	Microwave-optical quantum frequency conversion. Optica, 2021, 8, 1050.	4.8	81
21	Aluminum nitride nanophotonics for beyond-octave soliton microcomb generation and self-referencing. Nature Communications, 2021, 12, 5428.	5.8	53
22	Bidirectional electro-optic conversion reaching 1% efficiency with thin film lithium niobate. , 2021, , .		0
23	Efficient and tunable blue light generation using lithium niobate nonlinear photonics. Applied Physics Letters, 2021, 119, .	1.5	11
24	Nonâ€Reciprocity in Highâ€Q Ferromagnetic Microspheres via Photonic Spinâ€“Orbit Coupling. Laser and Photonics Reviews, 2020, 14, 1900252.	4.4	16
25	Epitaxial niobium nitride superconducting nanowire single-photon detectors. Applied Physics Letters, 2020, 117, .	1.5	25
26	Toward 1% single-photon anharmonicity with periodically poled lithium niobate microring resonators. Optica, 2020, 7, 1654.	4.8	110
27	High-acoustic-index-contrast phononic circuits: Numerical modeling. Journal of Applied Physics, 2020, 128, .	1.1	12
28	High frequency lithium niobate film-thickness-mode optomechanical resonator. Applied Physics Letters, 2020, 117, .	1.5	14
29	Photonic Dissipation Control for Kerr Soliton Generation in Strongly Raman-Active Media. Physical Review Letters, 2020, 125, 183901.	2.9	26
30	Incorporation of erbium ions into thin-film lithium niobate integrated photonics. Applied Physics Letters, 2020, 116, .	1.5	47
31	Entanglement of microwave-optical modes in a strongly coupled electro-optomechanical system. Physical Review A, 2020, 101, .	1.0	21
32	Cavity piezo-mechanics for superconducting-nanophotonic quantum interface. Nature Communications, 2020, 11, 3237.	5.8	76
33	Radiative Cooling of a Superconducting Resonator. Physical Review Letters, 2020, 124, 033602.	2.9	32
34	Magnon-photon strong coupling for tunable microwave circulators. Physical Review A, 2020, 101, .	1.0	41
35	Photon-Photon Quantum Phase Gate in a Photonic Molecule with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msup><mml:mi>Ï‡</mml:mi><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mn>2</mml:mn><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 92 Td (stretchy="false">) Applied, 2020, 13, .	1.5	20
36	Probabilistic vortex crossing criterion for superconducting nanowire single-photon detectors. Journal of Applied Physics, 2020, 127, .	1.1	4

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37	Lithium-niobate-on-insulator waveguide-integrated superconducting nanowire single-photon detectors. Applied Physics Letters, 2020, 116, .	1.5	47
38	Proposal for Heralded Generation and Detection of Entangled Microwaveâ€"Optical-Photon Pairs. Physical Review Letters, 2020, 124, 010511.	2.9	57
39	All-optical thermal control for second-harmonic generation in an integrated microcavity. Optics Express, 2020, 28, 11144.	1.7	9
40	Widely separated optical Kerr parametric oscillation in AlN microrings. Optics Letters, 2020, 45, 1124.	1.7	25
41	Ultraviolet to mid-infrared supercontinuum generation in single-crystalline aluminum nitride waveguides. Optics Letters, 2020, 45, 4499.	1.7	35
42	Waveguide cavity optomagnonics for microwave-to-optics conversion. Optica, 2020, 7, 1291.	4.8	84
43	Near-octave lithium niobate soliton microcomb. Optica, 2020, 7, 1275.	4.8	58
44	Design of a micrometer-long superconducting nanowire perfect absorber for efficient high-speed single-photon detection. Photonics Research, 2020, 8, 1260.	3.4	3
45	Flat-top optical filter via the adiabatic evolution of light in an asymmetric coupler. Physical Review A, 2019, 100, .	1.0	4
46	Beyond 100â€‰THz-spanning ultraviolet frequency combs in a non-centrosymmetric crystalline waveguide. Nature Communications, 2019, 10, 2971.	5.8	34
47	Stokes and anti-Stokes Raman scatterings from frequency comb lines in poly-crystalline aluminum nitride microring resonators. Optics Express, 2019, 27, 22246.	1.7	20
48	Polarization mode hybridization and conversion in phononic wire waveguides. Applied Physics Letters, 2019, 115, .	1.5	6
49	Broadband on-chip single-photon spectrometer. Nature Communications, 2019, 10, 4104.	5.8	88
50	Phononic integrated circuitry and spinâ€"orbit interaction of phonons. Nature Communications, 2019, 10, 2743.	5.8	67
51	Frequency-tunable high-<i>Q</i> superconducting resonators via wireless control of nonlinear kinetic inductance. Applied Physics Letters, 2019, 114, .	1.5	33
52	Phonon Coupling between a Nanomechanical Resonator and a Quantum Fluid. Nano Letters, 2019, 19, 3716-3722.	4.5	7
53	Spectrotemporal shaping of itinerant photons via distributed nanomechanics. Nature Photonics, 2019, 13, 323-327.	15.6	21
54	Superconducting nanowire single-photon detectors fabricated from atomic-layer-deposited NbN. Applied Physics Letters, 2019, 115, .	1.5	24

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55	Spin-wave confinement and coupling in organic-based magnetic nanostructures. APL Materials, 2019, 7, .	2.2	10
56	Strong Pockels materials. Nature Materials, 2019, 18, 9-11.	13.3	33
57	Low-damping ferromagnetic resonance in electron-beam patterned, high-<i>Q</i> vanadium tetracyanoethylene magnon cavities. APL Materials, 2019, 7, .	2.2	17
58	Cavity-enhanced optical controlling based on three-wave mixing in cavity-atom ensemble system. Optics Express, 2019, 27, 6660.	1.7	5
59	Infrared laser locking to a rubidium saturated absorption spectrum via a photonic chip frequency doubler. Optics Letters, 2019, 44, 1150.	1.7	8
60	Octave-spanning supercontinuum generation in nanoscale lithium niobate waveguides. Optics Letters, 2019, 44, 1492.	1.7	68
61	Soliton microcomb generation at 2â€‰â€‰Î¼m in z-cut lithium niobate microring resonators. Optics Letters, 2019, 44, 3182.	1.7	63
62	On-chip Ï‡⁽²⁾ microring optical parametric oscillator. Optica, 2019, 6, 1361.	4.8	75
63	Periodically poled thin-film lithium niobate microring resonators with a second-harmonic generation efficiency of 250,000%/W. Optica, 2019, 6, 1455.	4.8	263
64	Optimization of Second Order Nonlinear Frequency Conversion in Lithium Niobate Microrings. , 2019, , .		0
65	High quality factor surface Fabry-Perot cavity of acoustic waves. Applied Physics Letters, 2018, 112, .	1.5	19
66	Concept of quantum timing jitter and non-Markovian limits in single-photon detection. Physical Review A, 2018, 97, .	1.0	8
67	17â€‰000%/W second-harmonic conversion efficiency in single-crystalline aluminum nitride microresonators. Applied Physics Letters, 2018, 113, .	1.5	80
68	High-fidelity cavity soliton generation in crystalline AlN micro-ring resonators. Optics Letters, 2018, 43, 4366.	1.7	90
69	All-Optical Control of Linear and Nonlinear Energy Transfer via the Zeno Effect. Physical Review Letters, 2018, 120, 203902.	2.9	19
70	Efficient third-harmonic generation in composite aluminum nitride/silicon nitride microrings. Optica, 2018, 5, 103.	4.8	55
71	Efficient Generation of a Near-visible Frequency Comb via Cherenkov-like Radiation from a Kerr Microcomb. Physical Review Applied, 2018, 10, .	1.5	54
72	Superconducting cavity electro-optics: A platform for coherent photon conversion between superconducting and photonic circuits. Science Advances, 2018, 4, eaar4994.	4.7	148

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73	Control of second-harmonic generation in doubly resonant aluminum nitride microrings to address a rubidium two-photon clock transition. Optics Letters, 2018, 43, 2696.	1.7	14
74	Ultra-high-Q UV microring resonators based on a single-crystalline AlN platform. Optica, 2018, 5, 1279.	4.8	71
75	Broadband frequency conversion and â€œarea lawâ€•in tapered waveguides. OSA Continuum, 2018, 1, 1349.	1.8	5
76	Electrochemically sliced low loss AlGaN optical microresonators. Applied Physics Letters, 2017, 110, .	1.5	11
77	Parametric down-conversion photon-pair source on a nanophotonic chip. Light: Science and Applications, 2017, 6, e16249-e16249.	7.7	196
78	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. Physical Review Applied, 2017, 8, .	1.5	90
79	Patterned growth of crystalline Y3Fe5O12 nanostructures with engineered magnetic shape anisotropy. Applied Physics Letters, 2017, 110, .	1.5	34
80	Phase sensitive imaging of 10 GHz vibrations in an AlN microdisk resonator. Review of Scientific Instruments, 2017, 88, 123709.	0.6	21
81	Efficient visible frequency microcomb generation with 22% conversion efficiency. , 2017, , .		0
82	Self-aligned multi-channel superconducting nanowire single-photon detectors. Optics Express, 2016, 24, 27070.	1.7	15
83	Second-harmonic generation in aluminum nitride microrings with 2500%/W conversion efficiency. Optica, 2016, 3, 1126.	4.8	160
84	Low loss spin wave resonances in organic-based ferrimagnet vanadium tetracyanoethylene thin films. Applied Physics Letters, 2016, 109, .	1.5	25
85	Superstrong coupling of thin film magnetostatic waves with microwave cavity. Journal of Applied Physics, 2016, 119, .	1.1	62
86	Cavity piezomechanical strong coupling and frequency conversion on an aluminum nitride chip. Physical Review A, 2016, 94, .	1.0	40
87	Coupled spin-light dynamics in cavity optomagnonics. Physical Review A, 2016, 94, .	1.0	142
88	Optomagnonics in magnetic solids. Physical Review B, 2016, 94, .	1.1	90
89	Phase-dependent interference between frequency doubled comb lines in a Ï‡^(2) phase-matched aluminum nitride microring. Optics Letters, 2016, 41, 3747.	1.7	8
90	Multimode Strong Coupling in Superconducting Cavity Piezoelectromechanics. Physical Review Letters, 2016, 117, 123603.	2.9	53

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91	Optomagnonic Whispering Gallery Microresonators. Physical Review Letters, 2016, 117, 123605.	2.9	278
92	On-Chip Strong Coupling and Efficient Frequency Conversion between Telecom and Visible Optical Modes. Physical Review Letters, 2016, 117, 123902.	2.9	138
93	Cavity magnomechanics. Science Advances, 2016, 2, e1501286.	4.7	395
94	Integrated optomechanical single-photon frequency shifter. Nature Photonics, 2016, 10, 766-770.	15.6	94
95	Aluminum nitride as nonlinear optical material for on-chip frequency comb generation and frequency conversion. Nanophotonics, 2016, 5, 263-271.	2.9	51
96	Broadband nanophotonic waveguides and resonators based on epitaxial GaN thin films. Applied Physics Letters, 2015, 107, .	1.5	44
97	A 10-GHz film-thickness-mode cavity optomechanical resonator. Applied Physics Letters, 2015, 106, .	1.5	21
98	Magnon dark modes and gradient memory. Nature Communications, 2015, 6, 8914.	5.8	293
99	Cascaded optical transparency in multimode-cavity optomechanical systems. Nature Communications, 2015, 6, 5850.	5.8	111
100	Nano-Optomechanical Resonators in Microfluidics. Nano Letters, 2015, 15, 6116-6120.	4.5	33
101	Integrated Photonic Circuits in Gallium Nitride and Aluminum Nitride. International Journal of High Speed Electronics and Systems, 2014, 23, 1450001.	0.3	5
102	Integrated Optomechanical Circuits and Nonlinear Dynamics. , 2014, , 169-194.		0
103	Green, red, and IR frequency comb line generation from single IR pump in AlN microring resonator. Optica, 2014, 1, 396.	4.8	116
104	Triply resonant cavity electro-optomechanics at X-band. , 2014, , .		0
105	Electrical tuning and switching of an optical frequency comb generated in aluminum nitride microring resonators. Optics Letters, 2014, 39, 84.	1.7	48
106	Microwave-assisted coherent and nonlinear control in cavity piezo-optomechanical systems. Physical Review A, 2014, 90, .	1.0	32
107	Strongly Coupled Magnons and Cavity Microwave Photons. Physical Review Letters, 2014, 113, 156401.	2.9	693
108	Lowâ€loss aluminium nitride thin film for midâ€infrared microphotonics. Laser and Photonics Reviews, 2014, 8, L23.	4.4	48

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109	On-chip interaction-free measurements via the quantum Zeno effect. Physical Review A, 2014, 90, .	1.0	14
110	Low-Loss Aluminium Nitride Thin Film for Mid-Infrared Waveguiding. , 2014, , .		0
111	Electric-Field Coupling to Spin Waves in a Centrosymmetric Ferrite. Physical Review Letters, 2014, 113, 037202.	2.9	81
112	A closed-cycle 1 K refrigeration cryostat. Cryogenics, 2014, 64, 5-9.	0.9	18
113	Design of a Silicon Integrated Electro-Optic Modulator Using Ferroelectric BaTiO₃ Films. IEEE Photonics Technology Letters, 2014, 26, 1344-1347.	1.3	25
114	Triply resonant cavity electro-optomechanics at X-band. New Journal of Physics, 2014, 16, 063060.	1.2	16
115	Phase noise of self-sustained optomechanical oscillators. Physical Review A, 2014, 90, .	1.0	18
116	Sensitivity to external signals and synchronization properties of a non-isochronous auto-oscillator with delayed feedback. Scientific Reports, 2014, 4, 3873.	1.6	32
117	Matrix of Integrated Superconducting Single-Photon Detectors With High Timing Resolution. IEEE Transactions on Applied Superconductivity, 2013, 23, 2201007-2201007.	1.1	15
118	Low-noise NbTiN superconducting nanowire single-photon detectors integrated with Si3N4 waveguides. , 2013, , .		0
119	Aluminum nitride piezo-acousto-photonic crystal nanocavity with high quality factors. Applied Physics Letters, 2013, 102, .	1.5	54
120	Cavity piezooptomechanics: Piezoelectrically excited, optically transduced optomechanical resonators. Applied Physics Letters, 2013, 102, 021110.	1.5	40
121	Cavity optomechanics and cavity optoelectromechanics. , 2013, , .		0
122	Optical frequency comb generation from aluminum nitride microring resonator. Optics Letters, 2013, 38, 2810.	1.7	215
123	Casimir probe based upon metallized high Q SiN nanomembrane resonator. Review of Scientific Instruments, 2013, 84, 015115.	0.6	1
124	Nonlinear optical effects of ultrahigh-Q silicon photonic nanocavities immersed in superfluid helium. Scientific Reports, 2013, 3, 1436.	1.6	26
125	Waveguide integrated low noise NbTiN nanowire single-photon detectors with milli-Hz dark count rate. Scientific Reports, 2013, 3, 1893.	1.6	116
126	GHz aluminum nitride optomechanical wheel resonators. , 2012, , .		0

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127	High-<i>Q</i> silicon optomechanical microdisk resonators at gigahertz frequencies. Applied Physics Letters, 2012, 100, .	1.5	65
128	A superhigh-frequency optoelectromechanical system based on a slotted photonic crystal cavity. Applied Physics Letters, 2012, 101, .	1.5	28
129	Frequency and phase noise of ultrahigh<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>silicon nitride nanomechanical resonators. Physical Review B, 2012, 85, .	1.1	50
130	Aluminum nitride as a new material for chip-scale optomechanics and nonlinear optics. New Journal of Physics, 2012, 14, 095014.	1.2	207
131	Low-Loss, Silicon Integrated, Aluminum Nitride Photonic Circuits and Their Use for Electro-Optic Signal Processing. Nano Letters, 2012, 12, 3562-3568.	4.5	212
132	Observation of k<inf>B</inf>T/f frequency noise in ultrahigh Q silicon nitride nanomechanical resonators. , 2012, , .		0
133	Compact, widely tunable, half-lambda YIG oscillator. , 2012, , .		5
134	Casimir Force and<i>In Situ</i>Surface Potential Measurements on Nanomembranes. Physical Review Letters, 2012, 109, 027202.	2.9	76
135	Integrated GaN photonic circuits on silicon (100) for second harmonic generation. Optics Express, 2011, 19, 10462.	1.7	176
136	GHz optomechanical resonators with high mechanical Q factor in air. Optics Express, 2011, 19, 22316.	1.7	41
137	Active microcantilevers based on piezoresistive ferromagnetic thin films. Applied Physics Letters, 2011, 98, .	1.5	19
138	Photonic Integration of nano-electro-mechanical systems. , 2010, , .		0
139	Adiabatic embedment of nanomechanical resonators in photonic microring cavities. Applied Physics Letters, 2010, 96, 263101.	1.5	7
140	Optical forces between a high-Q micro-disk resonator and an integrated waveguide. , 2010, , .		0
141	Analysis of short range forces in opto-mechanical devices with a nanogap. Optics Express, 2010, 18, 12615.	1.7	21
142	Adiabatic embedment of nanomechanical resonators in photonic microring cavities. , 2010, , .		0
143	Optomechanical coupling in photonic crystal supported nanomechanical waveguides. Optics Express, 2009, 17, 12424.	1.7	28
144	Reactive Cavity Optical Force on Microdisk-Coupled Nanomechanical Beam Waveguides. Physical Review Letters, 2009, 103, 223901.	2.9	164