

# Mo Li

## List of Publications by Year in descending order

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114  
papers

8,038  
citations

57631

44  
h-index

46693

89  
g-index

118  
all docs

118  
docs citations

118  
times ranked

9328  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultra-sensitive NEMS-based cantilevers for sensing, scanned probe and very high-frequency applications. <i>Nature Nanotechnology</i> , 2007, 2, 114-120.	15.6	926
2	Waveguide-integrated black phosphorus photodetector with high responsivity and low dark current. <i>Nature Photonics</i> , 2015, 9, 247-252.	15.6	778
3	Harnessing optical forces in integrated photonic circuits. <i>Nature</i> , 2008, 456, 480-484.	13.7	492
4	High-speed and high-efficiency travelling wave single-photon detectors embedded in nanophotonic circuits. <i>Nature Communications</i> , 2012, 3, 1325.	5.8	366
5	Room-temperature high spin-orbit torque due to quantum confinement in sputtered BixSe(1-x) films. <i>Nature Materials</i> , 2018, 17, 800-807.	13.3	344
6	Tunable bipolar optical interactions between guided lightwaves. <i>Nature Photonics</i> , 2009, 3, 464-468.	15.6	232
7	Multifunctional Graphene Optical Modulator and Photodetector Integrated on Silicon Waveguides. <i>Nano Letters</i> , 2014, 14, 2741-2746.	4.5	217
8	Dynamic manipulation of nanomechanical resonators in the high-amplitude regime and non-volatile mechanical memory operation. <i>Nature Nanotechnology</i> , 2011, 6, 726-732.	15.6	216
9	Programmable phase-change metasurfaces on waveguides for multimode photonic convolutional neural network. <i>Nature Communications</i> , 2021, 12, 96.	5.8	186
10	Writing magnetic memory with ultrashort light pulses. <i>Nature Reviews Materials</i> , 2019, 4, 189-200.	23.3	176
11	Optical absorption in graphene integrated on silicon waveguides. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	169
12	On-the-fly closed-loop materials discovery via Bayesian active learning. <i>Nature Communications</i> , 2020, 11, 5966.	5.8	167
13	Reactive Cavity Optical Force on Microdisk-Coupled Nanomechanical Beam Waveguides. <i>Physical Review Letters</i> , 2009, 103, 223901.	2.9	164
14	Nonvolatile Electrically Reconfigurable Integrated Photonic Switch Enabled by a Silicon PIN Diode Heater. <i>Advanced Materials</i> , 2020, 32, e2001218.	11.1	152
15	Nanoelectromechanical Resonator Arrays for Ultrafast, Gas-Phase Chromatographic Chemical Analysis. <i>Nano Letters</i> , 2010, 10, 3899-3903.	4.5	151
16	High-speed waveguide-coupled graphene-on-graphene optical modulators. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	149
17	Heterogeneously Integrated Silicon Photonics for the Mid-Infrared and Spectroscopic Sensing. <i>ACS Nano</i> , 2014, 8, 6955-6961.	7.3	148
18	Sub-optical wavelength acoustic wave modulation of integrated photonic resonators at microwave frequencies. <i>Nature Communications</i> , 2014, 5, 5402.	5.8	131

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19	Layer-Tunable Third-Harmonic Generation in Multilayer Black Phosphorus. ACS Photonics, 2017, 4, 8-14.	3.2	125
20	Low-Loss Integrated Photonic Switch Using Subwavelength Patterned Phase Change Material. ACS Photonics, 2019, 6, 87-92.	3.2	124
21	Broadband all-photonic transduction of nanocantilevers. Nature Nanotechnology, 2009, 4, 377-382.	15.6	117
22	Three-Dimensional Integration of Black Phosphorus Photodetector with Silicon Photonics and Nanoplasmonics. Nano Letters, 2017, 17, 985-991.	4.5	111
23	Midinfrared Electro-optic Modulation in Few-Layer Black Phosphorus. Nano Letters, 2017, 17, 6315-6320.	4.5	96
24	Integration of 2D materials on a silicon photonics platform for optoelectronics applications. Nanophotonics, 2016, 6, 1205-1218.	2.9	87
25	Flexible and tunable silicon photonic circuits on plastic substrates. Scientific Reports, 2012, 2, 622.	1.6	85
26	Revealing the Origins of 3D Anisotropic Thermal Conductivities of Black Phosphorus. Advanced Electronic Materials, 2016, 2, 1600040.	2.6	85
27	All-Optical Switching of Magnetic Tunnel Junctions with Single Subpicosecond Laser Pulses. Physical Review Applied, 2017, 7, .	1.5	76
28	Myths and truths about optical phase change materials: A perspective. Applied Physics Letters, 2021, 118, .	1.5	76
29	Nanophotonic cavity optomechanics with propagating acoustic waves at frequencies up to 12â€‰GHz. Optica, 2015, 2, 826.	4.8	72
30	High Performance MgO-barrier Magnetic Tunnel Junctions for Flexible and Wearable Spintronic Applications. Scientific Reports, 2017, 7, 42001.	1.6	70
31	Ultrasensitive Gas-Phase Chemical Sensing Based on Functionalized Photonic Crystal Nanobeam Cavities. ACS Nano, 2014, 8, 522-527.	7.3	69
32	Programmable black phosphorus image sensor for broadband optoelectronic edge computing. Nature Communications, 2022, 13, 1485.	5.8	67
33	Theoretical investigation of the transverse optical force between a silicon nanowire waveguide and a substrate. Optics Express, 2009, 17, 1806.	1.7	66
34	Waveguide-Coupled Graphene Optoelectronics. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 84-94.	1.9	64
35	Multisite silicon neural probes with integrated silicon nitride waveguides and gratings for optogenetic applications. Scientific Reports, 2016, 6, 22693.	1.6	61
36	Switching energy limits of waveguide-coupled graphene-on-graphene optical modulators. Optics Express, 2012, 20, 20330.	1.7	59

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37	Waveguide-Integrated Compact Plasmonic Resonators for On-Chip Mid-Infrared Laser Spectroscopy. Nano Letters, 2018, 18, 7601-7608.	4.5	56
38	Electromechanical Brillouin scattering in integrated optomechanical waveguides. Optica, 2019, 6, 778.	4.8	55
39	Ultrahigh-frequency nano-optomechanical resonators in slot waveguide ring cavities. Applied Physics Letters, 2010, 97, 183110.	1.5	52
40	Time-domain measurement of optical transport in silicon micro-ring resonators. Optics Express, 2010, 18, 18438.	1.7	50
41	Nanomechanical Measurement of Magnetostriction and Magnetic Anisotropy in (Ga,Mn)As. Physical Review Letters, 2005, 95, 187206.	2.9	48
42	High Q optomechanical resonators in silicon nitride nanophotonic circuits. Applied Physics Letters, 2010, 97, .	1.5	47
43	Multichannel cavity optomechanics for all-optical amplification of radio frequency signals. Nature Communications, 2012, 3, 1091.	5.8	46
44	Tunable optical coupler controlled by optical gradient forces. Optics Express, 2011, 19, 15098.	1.7	45
45	Ultrafast photocurrent measurements of a black phosphorus photodetector. Applied Physics Letters, 2017, 110, .	1.5	44
46	Enhanced optical forces in integrated hybrid plasmonic waveguides. Optics Express, 2013, 21, 11839.	1.7	41
47	Aluminum nitride on insulator (AlNOI) platform for mid-infrared photonics. Optics Letters, 2019, 44, 73.	1.7	41
48	Black Phosphorus Mid-Infrared Light-Emitting Diodes Integrated with Silicon Photonic Waveguides. Nano Letters, 2020, 20, 6824-6830.	4.5	40
49	Acousto-optic modulation of a photonic crystal nanocavity with Lamb waves in microwave K band. Applied Physics Letters, 2015, 107, .	1.5	37
50	Black phosphorus mid-infrared photodetectors. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	36
51	Field-free spin-orbit torque switching of composite perpendicular CoFeB/Gd/CoFeB layers utilized for three-terminal magnetic tunnel junctions. Applied Physics Letters, 2017, 111, .	1.5	34
52	Strong Pockels materials. Nature Materials, 2019, 18, 9-11.	13.3	33
53	Optomechanical measurement of photon spin angular momentum and optical torque in integrated photonic devices. Science Advances, 2016, 2, e1600485.	4.7	31
54	Coupled-mode theory for plasmonic resonators integrated with silicon waveguides towards mid-infrared spectroscopic sensing. Optics Express, 2020, 28, 2020.	1.7	30

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55	Time-Resolved Magneto-Optical Kerr Effect of Magnetic Thin Films for Ultrafast Thermal Characterization. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2328-2332.	2.1	29
56	Optomechanical coupling in photonic crystal supported nanomechanical waveguides. <i>Optics Express</i> , 2009, 17, 12424.	1.7	28
57	The study of radiation effects in emerging micro and nano electro mechanical systems (M and NEMs). <i>Semiconductor Science and Technology</i> , 2017, 32, 013005.	1.0	27
58	Modeling of the optical force between propagating lightwaves in parallel 3D waveguides. <i>Optics Express</i> , 2009, 17, 16032.	1.7	26
59	Optomechanical photon shuttling between photonic cavities. <i>Nature Nanotechnology</i> , 2014, 9, 913-919.	15.6	26
60	A mechanical Kerr effect in deformable photonic media. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	25
61	Surface Modification of Black Phosphorus with Group 13 Lewis Acids for Ambient Protection and Electronic Tuning. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8329-8336.	7.2	25
62	Electromechanical Brillouin scattering in integrated planar photonics. <i>APL Photonics</i> , 2019, 4, .	3.0	24
63	Harnessing optoelectronic noises in a photonic generative network. <i>Science Advances</i> , 2022, 8, eabm2956.	4.7	24
64	Refractive Uses of Layered and Two-Dimensional Materials for Integrated Photonics. <i>ACS Photonics</i> , 2020, 7, 3270-3285.	3.2	23
65	Long-range transport of 2D excitons with acoustic waves. <i>Nature Communications</i> , 2022, 13, 1334.	5.8	23
66	Spin-momentum locked interaction between guided photons and surface electrons in topological insulators. <i>Nature Communications</i> , 2017, 8, 2141.	5.8	22
67	Analysis of short range forces in opto-mechanical devices with a nanogap. <i>Optics Express</i> , 2010, 18, 12615.	1.7	21
68	Carrier and thermal dynamics of silicon photonic resonators at cryogenic temperatures. <i>Optics Express</i> , 2011, 19, 3290.	1.7	21
69	High performance nanophotonic circuits based on partially buried horizontal slot waveguides. <i>Optics Express</i> , 2010, 18, 20690.	1.7	20
70	All-optical switching of magnetoresistive devices using telecom-band femtosecond laser. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	20
71	Active microcantilevers based on piezoresistive ferromagnetic thin films. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	19
72	Thermal annealing study of the mid-infrared aluminum nitride on insulator (AlNOI) photonics platform. <i>Optics Express</i> , 2019, 27, 19815.	1.7	19

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73	A nanofabricated optoelectronic probe for manipulating and recording neural dynamics. Journal of Neural Engineering, 2018, 15, 046008.	1.8	16
74	Waveguide-Integrated van der Waals Heterostructure Mid-Infrared Photodetector with High Performance. ACS Applied Materials & Interfaces, 2022, 14, 24856-24863.	4.0	16
75	Matrix of Integrated Superconducting Single-Photon Detectors With High Timing Resolution. IEEE Transactions on Applied Superconductivity, 2013, 23, 2201007-2201007.	1.1	15
76	Waveguide-integrated mid-infrared plasmonics with high-efficiency coupling for ultracompact surface-enhanced infrared absorption spectroscopy. Optics Express, 2018, 26, 23540.	1.7	15
77	Real-time, in situ probing of gamma radiation damage with packaged integrated photonic chips. Photonics Research, 2020, 8, 186.	3.4	15
78	On-chip synthesis of circularly polarized emission of light with integrated photonic circuits. Optics Letters, 2014, 39, 2553.	1.7	14
79	Integrated silicon and silicon nitride photonic circuits on flexible substrates. Optics Letters, 2014, 39, 3449.	1.7	13
80	Direct Visualization of Gigahertz Acoustic Wave Propagation in Suspended Phononic Circuits. Physical Review Applied, 2021, 16, .	1.5	10
81	Tolerating Noise Effects in Processing&#x2013;Memory Systems for Neural Networks: A Hardware&#x2013;Software Codesign Perspective. Advanced Intelligent Systems, 2022, 4, .	3.3	9
82	Photothermal actuation in nanomechanical waveguide devices. Journal of Applied Physics, 2009, 105, 014508.	1.1	7
83	Adiabatic embedment of nanomechanical resonators in photonic microring cavities. Applied Physics Letters, 2010, 96, 263101.	1.5	7
84	Separation of the valley exciton-polariton in two-dimensional semiconductors with an anisotropic photonic crystal. Physical Review B, 2020, 101, .	1.1	7
85	Surface Modification of Black Phosphorus with Group 13 Lewis Acids for Ambient Protection and Electronic Tuning. Angewandte Chemie, 2021, 133, 8410-8417.	1.6	5
86	Gigahertz photothermal effect in silicon waveguides. Applied Physics Letters, 2008, 93, 213106.	1.5	4
87	Black Phosphorus: Revealing the Origins of 3D Anisotropic Thermal Conductivities of Black Phosphorus (Adv. Electron. Mater. 5/2016). Advanced Electronic Materials, 2016, 2, .	2.6	4
88	Dynamic Phonon Manipulation by Optomechanically Induced Strong Coupling between Two Distinct Mechanical Resonators. ACS Photonics, 2019, 6, 1855-1862.	3.2	4
89	Photonic Platforms Using In&#x2013;Plane Optical Anisotropy of Tin (II) Selenide and Black Phosphorus. Advanced Photonics Research, 2021, 2, 2100176.	1.7	4
90	Structural evolution and phase transition mechanism of $\text{MoSe}_2$ under high pressure. Scientific Reports, 2021, 11, 22090.	1.6	3

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91	Study of black phosphorus anisotropy on silicon photonic waveguide. , 2015, , .		2
92	Laser-initiated magnetization reversal and correlated morphological effects visualized with <i>in situ</i> Fresnel transmission electron microscopy. Physical Review B, 2016, 94, .	1.1	2
93	GHz integrated acousto-optics. , 2016, , .		1
94	Black Phosphorus Photodetector on Silicon Photonic and Plasmonic Hybrid Platform. , 2016, , .		1
95	Photonic Integration of nano-electro-mechanical systems. , 2010, , .		0
96	Optical forces between a high-Q micro-disk resonator and an integrated waveguide. , 2010, , .		0
97	Adiabatic embedment of nanomechanical resonators in photonic microring cavities. , 2010, , .		0
98	Enhancing gradient optical force in silicon photonic devices. Proceedings of SPIE, 2012, , .	0.8	0
99	Torsional Cavity Optomechanical Nano-Seesaw System. , 2014, , .		0
100	Microwave Frequency Traveling Surface Acoustic Wave Induced Transparency. , 2015, , .		0
101	Surface Acoustic Wave Modulation of Optical Cavities on a Suspended Membrane. , 2015, , .		0
102	Optical Properties and Optoelectronic Applications of Black Phosphorus. , 0, , 435-457.		0
103	Chiral Interaction Between Spin-Momentum Locked Photons and Surface Electrons in Topological Insulators. , 2018, , .		0
104	Tunable optical forces and mode beating in coupled nano-mechanical beam waveguides. , 2010, , .		0
105	High Q optomechanical resonators in silicon nitride nanophotonic circuits. , 2011, , .		0
106	Nano-optomechanical System. , 2011, , .		0
107	A Cavity Optomechanical System Exhibiting Optically Induced Tunable Mechanical Nonlinearity. , 2012, , .		0
108	Nano-Optomechanical Systems (NOMS). , 2015, , 1-8.		0

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109	Nano-optomechanical Systems (NOMS). , 2016, , 2539-2546.		0
110	Ultrafast Photocurrent Spectroscopy in a Black Phosphorus Van der Waals Heterostructure. , 2016, , .		0
111	Integrated Two-Dimensional Free-Space Acousto-Optics on Suspended Membranes. , 2017, , .		0
112	On-chip Eletromechanically Induced Brillouin Scattering on Suspended Aluminum Nitride Waveguides. , 2017, , .		0
113	Coupling Photon Spin with Electron Spin in Integrated Photonic Chips. , 2018, , .		0
114	Broadband, Waveguide-integrated Mid-Infrared Black Phosphorus Modulator with High Modulation Depth. , 2020, , .		0