

# Ali Asghar Eftekhar

## List of Publications by Year in descending order

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64  
papers

1,041  
citations

686830

13  
h-index

580395

25  
g-index

64  
all docs

64  
docs citations

64  
times ranked

994  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Q micromechanical resonators in a two-dimensional phononic crystal slab. Applied Physics Letters, 2009, 94, .	1.5	235
2	Evidence of large high frequency complete phononic band gaps in silicon phononic crystal plates. Applied Physics Letters, 2008, 92, .	1.5	194
3	Electrically driven reprogrammable phase-change metasurface reaching 80% efficiency. Nature Communications, 2022, 13, 1696.	5.8	125
4	Dynamic Hybrid Metasurfaces. Nano Letters, 2021, 21, 1238-1245.	4.5	85
5	Soliton Formation in Whispering-Gallery-Mode Resonators via Input Phase Modulation. IEEE Photonics Journal, 2015, 7, 1-9.	1.0	56
6	Physics of band-gap formation and its evolution in the pillar-based phononic crystal structures. Journal of Applied Physics, 2014, 116, .	1.1	43
7	Acoustic confinement and waveguiding with a line-defect structure in phononic crystal slabs. Journal of Applied Physics, 2010, 108, 084515.	1.1	41
8	Waveguiding Effect in the Gigahertz Frequency Range in Pillar-based Phononic-Crystal Slabs. Physical Review Applied, 2018, 9, .	1.5	28
9	Experimental evidence of high-frequency complete elastic bandgap in pillar-based phononic slabs. Applied Physics Letters, 2014, 105, .	1.5	25
10	Synthetic Engineering of Morphology and Electronic Band Gap in Lateral Heterostructures of Monolayer Transition Metal Dichalcogenides. ACS Nano, 2020, 14, 6323-6330.	7.3	24
11	Strain relaxation via formation of cracks in compositionally modulated two-dimensional semiconductor alloys. Npj 2D Materials and Applications, 2018, 2, .	3.9	23
12	Multiplexed detection of lectins using integrated glycan-coated microring resonators. Biosensors and Bioelectronics, 2016, 80, 682-690.	5.3	22
13	Low-Loss Microdisk-Based Delay Lines for Narrowband Optical Filters. IEEE Photonics Technology Letters, 2012, 24, 1276-1278.	1.3	13
14	Self-synchronization phenomena in the Lugiato-Lefever equation. Physical Review A, 2017, 96, .	1.0	13
15	Magnesiumthermally Formed Porous Silicon Thin Films on Silicon Insulator Optical Microresonators for High Sensitivity Detection. Advanced Optical Materials, 2014, 2, 235-239.	3.6	10
16	Anatomy of Phase Locking in Hyperparametric Oscillations Based on Kerr Nonlinearity. IEEE Photonics Journal, 2017, 9, 1-11.	1.0	10
17	Phase-matched nonlinear second-harmonic generation in plasmonic metasurfaces. Nanophotonics, 2019, 8, 607-612.	2.9	10
18	Support loss-free micro/nano-mechanical resonators using phononic crystal slab waveguides. , 2010, , .		9

#	ARTICLE	IF	CITATIONS
19	Integrated phononic crystal resonators based on adiabatically-terminated phononic crystal waveguides. AIP Advances, 2016, 6, .	0.6	9
20	Sharp and Tunable Crystal/Fano-Type Resonances Enabled by Out-of-Plane Dipolar Coupling in Plasmonic Nanopatch Arrays. Annalen Der Physik, 2018, 530, 1700395.	0.9	9
21	Hypersonic Surface Phononic Bandgap Demonstration in a CMOS-Compatible Pillar-Based Piezoelectric Structure on Silicon. Physical Review Applied, 2018, 10, .	1.5	8
22	Double-Layer Crystalline Silicon on Insulator Material Platform for Integrated Photonic Applications. IEEE Photonics Journal, 2014, 6, 1-8.	1.0	7
23	Hadamard multiplexed fluorescence tomography. Biomedical Optics Express, 2014, 5, 763.	1.5	7
24	Comparison of Cascade, Lattice, and Parallel Filter Architectures. Journal of Lightwave Technology, 2010, , .	2.7	5
25	Resonator/waveguide coupling in phononic crystals for demultiplexing and filtering applications. , 2010, , .		5
26	Lattice Plasmon Induced Large Enhancement of Excitonic Emission in Monolayer Metal Dichalcogenides. Plasmonics, 2017, 12, 1975-1981.	1.8	5
27	Compact fluorescence sensor using on-chip silicon nitride microdisk. , 2011, , .		4
28	Wideband bright-soliton frequency-comb generation at optical telecommunication wavelength in a thin silicon nitride film. Journal of Nanophotonics, 2018, 12, 1.	0.4	4
29	Large simultaneous band gaps for photonic and phononic crystal slabs. , 2008, , .		2
30	Sub-microsecond thermal reconfiguration of silicon photonic devices. , 2009, , .		2
31	High-Q resonators on double-layer SOI platform. , 2013, , .		2
32	A high-quality factor piezoelectric-on-substrate phononic crystal micromechanical resonator. , 2009, , .		1
33	Large-scale array of small high-Q microdisk resonators for onchip spectral analysis. , 2009, , .		1
34	Low-loss microdisk-based delay lines for narrowband optical filters. , 2010, , .		1
35	Ultra-compact multiplexed lab-on-chip sensors using miniaturized integrated photonic resonators. , 2012, , .		1
36	Accurate post-fabrication trimming of ultra-compact resonators on silicon. , 2013, , .		1

#	ARTICLE	IF	CITATIONS
37	Observation of stimulated Brillouin scattering in Si<sub>3</sub>N<sub>4</sub> waveguides. , 2017, , .		1
38	Characterization of the effect of small perturbations on the optical modes in high Q microdisk cavities. , 2008, , .		0
39	Implementation of a coupling-tunable resonator for efficient high-bandwidth nonlinear silicon photonics applications. , 2008, , .		0
40	Measurement information content in fluorescent molecular tomography: Experimental results. , 2008, , .		0
41	Robust fluorescent tomography using likelihood priors: Phantom experimental results. , 2008, , .		0
42	Athermal operation in polymer-clad silicon microdisk resonators. , 2009, , .		0
43	Sustained GHz oscillations in ultra-high Q silicon microresonators. , 2009, , .		0
44	A row-action based L<sub>1</sub>-minimization approach to robust fluorescent tomography. , 2009, , .		0
45	Sub-wavelength imaging of optical modes on silicon microdisk cavities using a near-field probing technique. , 2009, , .		0
46	Interferometrically-coupled traveling-wave resonators for nonlinear optics applications. , 2009, , .		0
47	Fully reconfigurable compact RF photonic filters using high-Q silicon microdisk resonators. , 2010, , .		0
48	Novel resonance-based silicon nanophotonic structures. , 2010, , .		0
49	Sub-100ns and low-loss reconfigurable silicon photonics. , 2010, , .		0
50	Silicon microring resonator sensor with integrated PC spectrometer for sharp spectral features detection. , 2010, , .		0
51	Optimization of filter architecture for high-order RF-photonic filters on SOI. , 2011, , .		0
52	Sidewall roughness-induced mode splitting and scattering loss in high Q microdisk resonators: Theory and experiment. , 2011, , .		0
53	Novel porous silicon integrated optical devices for sensing applications. , 2011, , .		0
54	Fast total variation regularization for higher resolution in fluorescence tomography: A split Bregman iteration approach. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
55	Label-free flow cytometry using multiplex coherent anti-Stokes Raman scattering (MCARS) for biological analysis. , 2011, , .		0
56	On-chip multiplexed photonic gas sensing for the detection of volatile organic compounds. , 2012, , .		0
57	Tunable narrowband filters based on SiN-on-SOI platform. , 2012, , .		0
58	Vertical integration of silicon nitride on siliconon-insulator platform. , 2012, , .		0
59	High-fidelity photonic building blocks fabricated using thermal nanoimprint lithography (T-NIL). , 2012, , .		0
60	Accurate post-fabrication trimming of silicon resonators. , 2012, , .		0
61	Integrated Optomechanical Resonators in Double-Layer Crystalline Silicon Platforms. , 2018, , .		0
62	High-Q Microresonators at Near-Infrared/Near Visible Wavelengths on a 3C-SiC-on-Insulator (SiCOI) Platform. , 2018, , .		0
63	Nonvolatile Tunable Integrated Mid-Infrared GST-SiC Metasurfaces. , 2018, , .		0
64	High-Q Slot-Waveguide-Based Ring Resonator on a 3C-SiC-on-Insulator Platform for Ultrasensitive Sensing Applications. , 2021, , .		0