

# Ihab El-Kady

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

2,365  
citations

394421

19  
h-index

361022

35  
g-index

40  
all docs

40  
docs citations

40  
times ranked

2202  
citing authors

#	ARTICLE	IF	CITATIONS
1	All-metallic three-dimensional photonic crystals with a large infrared bandgap. <i>Nature</i> , 2002, 417, 52-55.	27.8	582
2	Reduction in the Thermal Conductivity of Single Crystalline Silicon by Phononic Crystal Patterning. <i>Nano Letters</i> , 2011, 11, 107-112.	9.1	429
3	Photonic crystal enhanced narrow-band infrared emitters. <i>Applied Physics Letters</i> , 2002, 81, 4685-4687.	3.3	237
4	Metallic photonic crystals at optical wavelengths. <i>Physical Review B</i> , 2000, 62, 15299-15302.	3.2	168
5	Thermal transport in phononic crystals and the observation of coherent phonon scattering at room temperature. <i>Nature Communications</i> , 2015, 6, 7228.	12.8	135
6	Three-dimensional photonic-crystal emission through thermal excitation. <i>Optics Letters</i> , 2003, 28, 1909.	3.3	85
7	Phononic band-gap crystals for radio frequency communications. <i>Applied Physics Letters</i> , 2008, 92, 233504.	3.3	81
8	Experimental observation of photonic-crystal emission near a photonic band edge. <i>Applied Physics Letters</i> , 2003, 83, 593-595.	3.3	76
9	Origin of reduction in phonon thermal conductivity of microporous solids. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	64
10	Phononic crystals operating in the gigahertz range with extremely wide band gaps. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	59
11	Three-Dimensional Nanofabrication with Elastomeric Phase Masks. <i>Journal of Physical Chemistry B</i> , 2007, 111, 12945-12958.	2.6	58
12	Highly efficient light emission at $\lambda = 15 \mu\text{m}$ by a three-dimensional tungsten photonic crystal. <i>Optics Letters</i> , 2003, 28, 1683.	3.3	52
13	Photonic band gap effect in layer-by-layer metallic photonic crystals. <i>Journal of Applied Physics</i> , 2003, 93, 38-42.	2.5	49
14	Molded transparent photopolymers and phase shift optics for fabricating three dimensional nanostructures. <i>Optics Express</i> , 2007, 15, 6358.	3.4	37
15	Phonon considerations in the reduction of thermal conductivity in phononic crystals. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 103, 575-579.	2.3	28
16	Realizing the frequency quality factor product limit in silicon via compact phononic crystal resonators. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	27
17	Dielectric waveguides in two-dimensional photonic bandgap materials. <i>Journal of Lightwave Technology</i> , 1999, 17, 2042-2049.	4.6	26
18	Application of photonic crystals in submicron damage detection and quantification. <i>Applied Physics Letters</i> , 2006, 88, 253109.	3.3	26

#	ARTICLE	IF	CITATIONS
19	Thermal conductivity prediction of nanoscale phononic crystal slabs using a hybrid lattice dynamics-continuum mechanics technique. AIP Advances, 2011, 1, .	1.3	21
20	Realization of a 33 GHz phononic crystal fabricated in a freestanding membrane. AIP Advances, 2011, 1, .	1.3	18
21	Photonic crystal high-efficiency multispectral thermal emitters. Applied Physics Letters, 2008, 93, 153501.	3.3	16
22	Effects of flexural and extensional excitation modes on the transmission spectrum of phononic crystals operating at gigahertz frequencies. Journal of Applied Physics, 2013, 113, .	2.5	14
23	Group-theory approach to tailored electromagnetic properties of metamaterials: An inverse-problem solution. Physical Review E, 2011, 83, 066603.	2.1	13
24	Microfabricated suspended island platform for the measurement of in-plane thermal conductivity of thin films and nanostructured materials with consideration of contact resistance. Review of Scientific Instruments, 2013, 84, 105003.	1.3	11
25	Preface to Special Topic: Selected Articles from Phononics 2011: The First International Conference on Phononic Crystals, Metamaterials and Optomechanics, 29 May-2 June 2011, Santa Fe, New Mexico, USA. AIP Advances, 2011, 1, .	1.3	10
26	Phonon-based scalable platform for chip-scale quantum computing. AIP Advances, 2016, 6, .	1.3	10
27	Thermal conductivity manipulation in single crystal silicon via lithographically defined phononic crystals. , 2012, , .		6
28	Fuzzy Learning of Talbot Effect Guides Optimal Mask Design for Proximity Field Nanopatterning Lithography. IEEE Photonics Technology Letters, 2008, 20, 761-763.	2.5	4
29	Micro and nano fabricated phononic crystals: technology and applications. , 2011, , .		4
30	Hybrid genetic optimization for design of photonic crystal emitters. Engineering Optimization, 2010, 42, 791-809.	2.6	3
31	Preface to Special Topic: Selected Articles from Phononics 2013: The Second International Conference on Phononic Crystals/Metamaterials, Phonon Transport and Optomechanics, 2-7 June 2013, Sharm El-Sheikh, Egypt. AIP Advances, 2014, 4, .	1.3	3
32	Frequency Selective Surfaces Enable Mems Gas Sensor. Materials Research Society Symposia Proceedings, 2002, 722, 341.	0.1	2
33	Micro-indentation of metallic photonic crystals: experimental and numerical investigations. International Journal of Mechanics and Materials in Design, 2008, 4, 407-418.	3.0	2
34	Manipulation of thermal phonons: a phononic crystal route to High-ZT thermoelectrics. Proceedings of SPIE, 2011, , .	0.8	2
35	Thermal conductivity manipulation in lithographically patterned single crystal silicon phononic crystal structures. , 2011, , .		2
36	Machined phononic crystals to block high-order Lamb waves and crosstalk in through-metal ultrasonic communication systems. Applied Physics Letters, 2022, 120, 191705.	3.3	2

#	ARTICLE	IF	CITATIONS
37	<title>Photonic crystals for narrow-band infrared emission</title>. , 2002, 4574, 193.		1
38	An Integrated Simulation Environment Realizing the Ability of Nano-Photonic Crystals to Detect and Quantify Submicron and Microdamage in Materials. Journal of Computational and Theoretical Nanoscience, 2007, 4, 494-503.	0.4	1
39	Photonic sensors for micro-damage detection: A proof of concept using numerical simulation. Smart Structures and Systems, 2009, 5, 483-494.	1.9	1
40	Stimulated Mach-wave phonon emission: Towards broadband phonon emitters and receivers. , 2012, , .		0