Martin Maldovan

List of Publications by Year
in descending order

45 papers	3,013 citations	361413 20 h-index	361022 35 g-index
46 all docs	46 docs citations	46 times ranked	3545 citing authors

#	Article	IF	Citations
1	Impact of Porosity and Boundary Scattering on Thermal Transport in Diameter-Modulated Nanowires. ACS Applied Materials & Interfaces, 2022, 14, 1740-1746.	8.0	0
2	Phononic crystals at various frequencies. APL Materials, 2022, 10, .	5.1	3
3	Backscattering limit of nanoscale heat conduction. Journal of Physics Condensed Matter, 2021, 33, 395301.	1.8	0
4	Specular reflection leads to maximum reduction in cross-plane thermal conductivity. Journal of Applied Physics, 2019, 125, 224301.	2.5	5
5	Permeabilities and selectivities in anisotropic planar membranes for gas separations. Separation and Purification Technology, 2019, 228, 115762.	7.9	4
6	Phononic pathways towards rational design of nanowire heat conduction. Nanotechnology, 2019, 30, 372002.	2.6	14
7	Cross-plane heat conduction in IIIâ€"V semiconductor superlattices. Journal of Physics Condensed Matter, 2019, 31, 345301.	1.8	8
8	Anisotropic membrane materials for gas separations. AICHE Journal, 2019, 65, e16599.	3.6	4
9	Cross-plane thermal conduction in superlattices: Impact of multiple length scales on phonon transport. Journal of Applied Physics, 2019, 125, .	2.5	12
10	Thermal transport in semiconductor nanotubes. International Journal of Heat and Mass Transfer, 2019, 130, 368-374.	4.8	4
11	Enhancing Thermal Transport in Layered Nanomaterials. Scientific Reports, 2018, 8, 1880.	3.3	11
12	Modulating thermal conduction via phonon spectral coupling. Journal of Applied Physics, 2018, 124, 124302.	2.5	0
13	Breaking separation limits in membrane technology. Journal of Membrane Science, 2018, 566, 301-306.	8.2	28
14	Unconventional thermal transport in thin film-on-substrate systems. Journal Physics D: Applied Physics, 2018, 51, 365302.	2.8	0
15	Analysis of in-plane thermal phonon transport in IIIâ€"V compound semiconductor superlattices. Nanoscale and Microscale Thermophysical Engineering, 2018, 22, 239-253.	2.6	4
16	Metamaterial membranes. Journal Physics D: Applied Physics, 2017, 50, 025104.	2.8	17
17	Mass diffusion cloaking and focusing with metamaterials. Applied Physics Letters, 2017, 111, .	3.3	24
18	Phonon Surface Scattering and Thermal Energy Distribution in Superlattices. Scientific Reports, 2017, 7, 5625.	3.3	32

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19	Spatial Manipulation of Thermal Flux in Nanoscale Films. Nanoscale and Microscale Thermophysical Engineering, 2017, 21, 145-158.	2.6	4
20	Rational design of mass diffusion metamaterial concentrators based on coordinate transformations. Journal of Applied Physics, 2016, 120, 084902.	2.5	11
21	Surface scattering controlled heat conduction in semiconductor thin films. Journal of Applied Physics, 2016, 120, .	2.5	31
22	Impact of Phonon Surface Scattering on Thermal Energy Distribution of Si and SiGe Nanowires. Scientific Reports, 2016, 6, 25818.	3.3	51
23	Mass Separation by Metamaterials. Scientific Reports, 2016, 6, 21971.	3.3	26
24	Phonon wave interference and thermal bandgap materials. Nature Materials, 2015, 14, 667-674.	27.5	239
25	25th Anniversary Article: Ordered Polymer Structures for the Engineering of Photons and Phonons. Advanced Materials, 2014, 26, 532-569.	21.0	205
26	Sound and heat revolutions in phononics. Nature, 2013, 503, 209-217.	27.8	963
27	Narrow Low-Frequency Spectrum and Heat Management by Thermocrystals. Physical Review Letters, 2013, 110, 025902.	7.8	182
28	Thermal conductivity of semiconductor nanowires from micro to nano length scales. Journal of Applied Physics, 2012, 111, 024311.	2.5	28
29	Transition between ballistic and diffusive heat transport regimes in silicon materials. Applied Physics Letters, 2012, 101, 113110.	3.3	37
30	Micro to nano scale thermal energy conduction in semiconductor thin films. Journal of Applied Physics, 2011, 110, .	2.5	44
31	Thermal energy transport model for macro-to-nanograin polycrystalline semiconductors. Journal of Applied Physics, 2011, 110, 114310.	2.5	40
32	Colloidal crystals go hypersonic. Nature Materials, 2006, 5, 773-774.	27.5	36
33	Simultaneous localization of photons and phonons in two-dimensional periodic structures. Applied Physics Letters, 2006, 88, 251907.	3.3	207
34	Layer-by-layer photonic crystal with a repeating two-layer sequence. Applied Physics Letters, 2004, 85, 911-913.	3.3	12
35	Photonic crystals through holographic lithography: Simple cubic, diamond-like, and gyroid-like structures. Applied Physics Letters, 2004, 84, 5434-5436.	3.3	185
36	Layer-by-layer diamond-like woodpile structure with a large photonic band gap. Applied Physics Letters, 2004, 84, 362-364.	3.3	28

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37	Diamond-structured photonic crystals. Nature Materials, 2004, 3, 593-600.	27.5	330
38	Exploring for 3D photonic bandgap structures in the 11 f.c.c. space groups. Nature Materials, 2003, 2, 664-667.	27.5	87
39	Three-dimensional dielectric network structures with large photonic band gaps. Applied Physics Letters, 2003, 83, 5172-5174.	3.3	18
40	Photonic Crystals. , 0, , 139-181.		0
41	Appendix C: MATLAB Program to Calculate Reflectance versus Frequency for One-dimensional Phononic Crystals. , 0, , 297-304.		0
42	Periodic Structures and Interference Lithography. , 0, , 97-112.		1
43	Phononic Crystals. , 0, , 183-213.		0
44	Structural Periodicity. , 0, , 1-28.		0
45	Fabrication of Periodic Structures. , 0, , 113-137.		1