Giuseppe Romano

List of Publications by Year
in descending order

33	906	567281 15	477307 29
papers	citations	h-index	g-index

33	33	33	1196
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fast and interpretable classification of small X-ray diffraction datasets using data augmentation and deep neural networks. Npj Computational Materials, 2019, 5, .	8.7	177
2	Piezoelectric potential in vertically aligned nanowires for high output nanogenerators. Nanotechnology, 2011, 22, 465401.	2.6	159
3	The Multiscale Paradigm in Electronic Device Simulation. IEEE Transactions on Electron Devices, 2011, 58, 1425-1432.	3.0	97
4	Temperature-dependent thermal conductivity in silicon nanostructured materials studied by the Boltzmann transport equation. Physical Review B, 2016, 93, .	3.2	44
5	Toward phonon-boundary engineering in nanoporous materials. Applied Physics Letters, 2014, 105, .	3.3	42
6	Multifidelity deep neural operators for efficient learning of partial differential equationsÂwith application to fast inverse design of nanoscale heat transport. Physical Review Research, 2022, 4, .	3.6	41
7	Heating and cooling mechanisms in single-molecule junctions. Physical Review B, 2010, 81, .	3.2	37
8	Heat Conduction in Nanostructured Materials Predicted by Phonon Bulk Mean Free Path Distribution. Journal of Heat Transfer, 2015, 137, .	2.1	36
9	Mesoscale modeling of phononic thermal conductivity of porous Si: interplay between porosity, morphology and surface roughness. Journal of Computational Electronics, 2012, 11, 8-13.	2.5	32
10	Phonon Conduction in Silicon Nanobeam Labyrinths. Scientific Reports, 2017, 7, 6233.	3.3	28
11	TiberCAD: towards multiscale simulation of optoelectronic devices. Optical and Quantum Electronics, 2008, 40, 1077-1083.	3.3	25
12	Electronâ€“phonon scattering in molecular electronics: from inelastic electron tunnelling spectroscopy to heating effects. New Journal of Physics, 2008, 10, 065020.	2.9	24
13	Nanostructured Composites Based on Liquid-Crystalline Elastomers. Polymers, 2018, 10, 773.	4.5	22
14	Impact of thermally dead volume on phonon conduction along silicon nanoladders. Nanoscale, 2018, 10, 11117-11122.	5.6	20
15	Phonon bottleneck identification in disordered nanoporous materials. Physical Review B, 2017, 96, .	3.2	18
16	Single-molecule electronics: Cooling individual vibrational modes by the tunneling current. Journal of Chemical Physics, 2016, 144, 114310.	3.0	13
17	Thermal anisotropy enhanced by phonon size effects in nanoporous materials. Applied Physics Letters, 2017, 110, .	3.3	11
18	Parameter-free model to estimate thermal conductivity in nanostructured materials. Physical Review B, 2019, 100, .	3.2	11

#	Article	IF	Citations
19	Mitigating the Effect of Nanoscale Porosity on Thermoelectric Power Factor of Si. ACS Applied Energy Materials, 2021, 4, 1915-1923.	5.1	10
20	Universal effective medium theory to predict the thermal conductivity in nanostructured materials. International Journal of Heat and Mass Transfer, 2022, 183, 122040.	4.8	9
21	Bayesim: A tool for adaptive grid model fitting with Bayesian inference. Computer Physics Communications, 2019, 239, 161-165.	7.5	8
22	Directional Phonon Suppression Function as a Tool for the Identification of Ultralow Thermal Conductivity Materials. Scientific Reports, 2017, 7, 44379.	3.3	7
23	Enhanced Thermoelectric Performance of Polycrystalline Si0.8Ge0.2 Alloys through the Addition of Nanoscale Porosity. Nanomaterials, 2021, 11, 2591.	4.1	7
24	Joule heating in molecular tunnel junctions: application to C60. Journal of Computational Electronics, 2008, 7, 384-389.	2.5	6
25	Thermal transport in nanoporous holey silicon membranes investigated with optically induced transient thermal gratings. Journal of Applied Physics, 2020, 128, .	2.5	6
26	Diffusive Phonons in Nongray Nanostructures. Journal of Heat Transfer, 2019, 141, .	2.1	5
27	âˆ‚PV: An end-to-end differentiable solar-cell simulator. Computer Physics Communications, 2021, 272, 108232.	7.5	5
28	Mode- and space-resolved thermal transport of alloy nanostructures. International Journal of Heat and Mass Transfer, 2022, 195, 123191.	4.8	3
29	Simulation of Inelastic Scattering in Molecular Junctions: Application to Inelastic Electron Tunneling Spectroscopy and Dissipation Effects. Journal of Computational and Theoretical Nanoscience, 2010, 7, 2512-2526.	0.4	2
30	Handshaking multiscale thermal model of nanostructured devices. , 2010, , .		1
31	Modeling of Dissipative Transport in Molecular Systems. , 2007, , .		0
32	Simulating Nanoscale Heat Transport. , 2015, , 1-12.		0
33	Simulating Nanoscale Heat Transport. , 2016, , 3669-3679.		0