David Lacroix

List of Publications by Year
in descending order

91 papers	1,554 citations	279798 23 h-index	330143 37 g-index
92 all docs	92 docs citations	92 times ranked	1276 citing authors

#	Article	IF	Citations
1	Modulating Thermal Transport in Porous Carbon Honeycomb by Cutting and Deformation Techniques. Physical Chemistry Chemical Physics, 2022, , .	2.8	1
2	Application of the Photoacoustic Approach in the Characterization of Nanostructured Materials. Nanomaterials, 2022, 12, 708.	4.1	7
3	Thermal conductivity temperature dependence of water confined in nanoporous silicon. Journal of Physics Condensed Matter, 2022, 34, 305701.	1.8	4
4	Thermophysical properties of n-hexadecane: Combined molecular dynamics and experimental investigations. International Communications in Heat and Mass Transfer, 2022, 137, 106234.	5.6	2
5	Interfacial thermal resistance between nanoconfined water and silicon: Impact of temperature and silicon phase. Surfaces and Interfaces, 2022, 33, 102188.	3.0	4
6	Frequency domain analysis of 3Ï‰-scanning thermal microscope probeâ€”Application to tip/surface thermal interface measurements in vacuum environment. Journal of Applied Physics, 2021, 129, .	2.5	5
7	Development of microdevices for the in-plane thermoelectric characterization of deposited films. Journal of Materials Research and Technology, 2021, 15, 1190-1200.	5.8	0
8	FAIR Metadata Standards for Low Carbon Energy Researchâ€”A Review of Practices and How to Advance. Energies, 2021, 14, 6692.	3.1	6
9	Thermal transport in semiconductors studied by Monte Carlo simulations combined with the Green-Kubo formalism. Physical Review B, 2021, 104, .	3.2	1
10	Transferability of neural network potentials for varying stoichiometry: Phonons and thermal conductivity of Mn<i>x</i>Ge<i>y</i> compounds. Journal of Applied Physics, 2020, 127, .	2.5	27
11	Thermal conductivity of CsPbBr3 halide perovskite: Photoacoustic measurements and molecular dynamics analysis. AIP Conference Proceedings, 2020, , .	0.4	2
12	Thermal transport enhancement of hybrid nanocomposites; impact of confined water inside nanoporous silicon. Applied Physics Letters, 2020, 117, .	3.3	12
13	Thermal properties study of silicon nanostructures by photoacoustic techniques. Journal of Applied Physics, 2020, 127, .	2.5	10
14	Electrodeposition of Tin Selenide from Oxalate-Based Aqueous Solution. Journal of the Electrochemical Society, 2020, 167, 162502.	2.9	2
15	Tuning thermal transport in nanowires: molecular dynamics and Monte Carlo simulations. Frontiers of Nanoscience, 2020, 17, 61-76.	0.6	0
16	Thermal conductivity of strained silicon: Molecular dynamics insight and kinetic theory approach. Journal of Applied Physics, 2019, 126, .	2.5	14
17	Features of photothermal transformation in porous silicon based multilayered structures. Applied Physics Letters, 2019, 115, 021902.	3.3	17
18	Nanowire forest of pnictogenâ€“chalcogenide alloys for thermoelectricity. Nanoscale, 2019, 11, 13423-13430.	5.6	5

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19	Impact of thermal annealing on photoacoustic response and heat transport in porous silicon based nanostructured materials. AIP Conference Proceedings, 2019, , .	0.4	2
20	Roughness and amorphization impact on thermal conductivity of nanofilms and nanowires: Making atomistic modeling more realistic. Journal of Applied Physics, 2019, 126, 164305.	2.5	5
21	Lattice thermal conductivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mm and SnSe using Debye-Callaway and Monte Carlo phonon transport modeling: Application to nanofilms and nanowires. Physical Review B, 2019, 100, .	3.2	11
22	Thermal conductivity in disordered porous nanomembranes. Nanotechnology, 2019, 30, 265401.	2.6	12
23	Radial dependence of thermal transport in silicon nanowires. JPhys Materials, 2019, 2, 015002.	4.2	9
24	<i>Ab initio</i> based calculations of the thermal conductivity at the micron scale. Applied Physics Letters, 2018, 112, .	3.3	9
25	Impact of screw and edge dislocations on the thermal conductivity of individual nanowires and bulk GaN: a molecular dynamics study. Physical Chemistry Chemical Physics, 2018, 20, 5159-5172.	2.8	26
26	Towards Thermal Reading of Magnetic States in Hall Crosses. Physical Review Applied, 2018, 9, .	3.8	1
27	Influence of amorphous layers on the thermal conductivity of phononic crystals. Physical Review B, 2018, 97, .	3.2	12
28	Green roof ageing or Isolatic Technosolâ€™s pedogenesis?. Journal of Soils and Sediments, 2018, 18, 418-425.	3.0	21
29	Enhanced thermal conductivity in percolating nanocomposites: a molecular dynamics investigation. Nanoscale, 2018, 10, 21732-21741.	5.6	11
30	Heat transfer in rough nanofilms and nanowires using full band <i>ab initio</i> Monte Carlo simulation. Journal of Physics Condensed Matter, 2018, 30, 495902.	1.8	11
31	Thermal transport in two- and three-dimensional nanowire networks. Physical Review B, 2018, 98, .	3.2	15
32	Synthesis of bismuth telluride nanotubes and their simulated thermal properties. Superlattices and Microstructures, 2018, 122, 587-595.	3.1	8
33	Green roof aging: Quantifying the impact of substrate evolution on hydraulic performances at the lab-scale. Journal of Hydrology, 2018, 564, 416-423.	5.4	25
34	Thermal conductivity of deca-nanometric patterned Si membranes by multiscale simulations. International Journal of Heat and Mass Transfer, 2018, 126, 830-835.	4.8	6
35	Effect of Amorphisation on the Thermal Properties of Nanostructured Membranes. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2017, 72, 189-192.	1.5	3
36	Modeling Thermal Transport in Nano-Porous Semiconductors. , 2017, , 253-284.		2

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37	High-throughput heterodyne thermoreflectance: Application to thermal conductivity measurements of a Feâ€“Siâ€“Ge thin film alloy library. Review of Scientific Instruments, 2017, 88, 074902.	1.3	6
38	Effect of the amorphization around spherical nano-pores on the thermal conductivity of nano-porous Silicon. Journal of Physics: Conference Series, 2017, 785, 012009.	0.4	2
39	Heat transport in phononic-like membranes: Modeling and comparison with modulated nano-wires. International Journal of Heat and Mass Transfer, 2017, 114, 550-558.	4.8	15
40	On the dependence of the thermal conductivity of width-modulated nanowires on the number of modulations. Journal of Physics: Conference Series, 2017, 785, 012011.	0.4	3
41	Thermal conductivity of phononic membranes with aligned and staggered lattices of holes at room and low temperatures. Physical Review B, 2017, 95, .	3.2	37
42	Nanoscale and Microscale Heat Transfer V (NMHT-V) EUROTHERM seminar No 108. Journal of Physics: Conference Series, 2017, 785, 011001.	0.4	0
43	Crystalline-amorphous silicon nano-composites: Nano-pores and nano-inclusions impact on the thermal conductivity. Journal of Applied Physics, 2016, 119, .	2.5	39
44	Thermal conductivity of Bi2Te3 nanowires and nanotubes. , 2015, , .		0
45	Modeling the reduction of thermal conductivity in core/shell and diameter-modulated silicon nanowires. Physical Review B, 2015, 91, .	3.2	30
46	Monte Carlo simulations of phonon transport in Si nanowires with constrictions. International Journal of Heat and Mass Transfer, 2015, 86, 648-655.	4.8	30
47	Thermal conductivity of <i>Bi</i>2<i>Te</i>3 tilted nanowires, a molecular dynamics study. Applied Physics Letters, 2015, 106, .	3.3	9
48	Monte Carlo simulations of phonon transport in nanoporous silicon and germanium. Journal of Applied Physics, 2014, 115, .	2.5	79
49	Atomistic amorphous/crystalline interface modelling for superlattices and core/shell nanowires. Journal of Physics Condensed Matter, 2014, 26, 055011.	1.8	30
50	Scaling behavior of the thermal conductivity of width-modulated nanowires and nanofilms for heat transfer control at the nanoscale. Nanotechnology, 2014, 25, 465402.	2.6	25
51	Thermal properties of amorphous/crystalline silicon superlattices. Journal of Physics Condensed Matter, 2014, 26, 355801.	1.8	44
52	Thermal conductivity of meso-porous germanium. Applied Physics Letters, 2014, 105, 031912.	3.3	21
53	Note: Mechanical etching of atomic force microscope tip and microsphere attachment for thermal radiation scattering enhancement. Review of Scientific Instruments, 2013, 84, 126106.	1.3	2
54	Retrieving particle size and density from extinction measurement in dusty plasma, Monte Carlo inversion and Ray-tracing comparison. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 128, 18-26.	2.3	19

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55	Agglomeration processes sustained by dust density waves in Ar/C2H2 plasma: From C2H2 injection to the formation of an organized structure. Physics of Plasmas, 2013, 20, 033703.	1.9	3
56	Thermal conductivity of regularly spaced amorphous/crystalline silicon superlattices. A molecular dynamics study. Materials Research Society Symposia Proceedings, 2013, 1543, 71-79.	0.1	4
57	CaractÃ©risation du fonctionnement thermo-hydrique<i>in situ</i>d'une toiture vÃ©gÃ©talisÃ©e extensive. Houille Blanche, 2013, , 62-69.	0.3	3
58	Tip optimization for improvement of detection in scanning near-field optical microscopy. Journal of Optics (United Kingdom), 2012, 14, 075703.	2.2	2
59	Silicon Nanowire Conductance in the Ballistic Regime: Models and Simulations. Journal of Heat Transfer, 2012, 134, .	2.1	0
60	Eurotherm Conference No. 95: Computational Thermal Radiation in Participating Media IV. Journal of Physics: Conference Series, 2012, 369, 011001.	0.4	0
61	Cluster Agglomeration Induced by Dust-Density Waves in Complex Plasmas. Physical Review Letters, 2012, 109, 245002.	7.8	21
62	Radiative properties of tannin-based, glasslike, carbon foams. Carbon, 2012, 50, 4102-4113.	10.3	34
63	Finite-difference time-domain and near-field-to-far-field transformation in the spectral domain: application to scattering objects with complex shapes in the vicinity of a semi-infinite dielectric medium. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 868.	1.5	11
64	Heat and moisture transport in wooden multi-composite panels. Dynamic study of the air layer impact on the building envelope energetic behavior. International Journal of Thermal Sciences, 2011, , .	4.9	1
65	Near-field and far-field modeling of scattered surface waves. Application to the apertureless scanning near-field optical microscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1162-1169.	2.3	4
66	Agglomeration processes in carbonaceous dusty plasmas, experiments and numerical simulations. New Journal of Physics, 2010, 12, 093014.	2.9	12
67	Silicon Nanowire Conductance in the Ballistic Regime: Models and Simulation. , 2009, , .		0
68	Modeling semiconductor nanostructures thermal properties: The dispersion role. Journal of Applied Physics, 2009, 105, 073516.	2.5	28
69	Prediction of the thermal conductivity anisotropy of Si nanofilms. Results of several numerical methods. International Journal of Thermal Sciences, 2009, 48, 1467-1476.	4.9	30
70	Phonon transport in silicon, influence of the dispersion properties choice on the description of the anharmonic resistive mechanisms. European Physical Journal B, 2009, 67, 15-25.	1.5	10
71	Nanostructures. Topics in Applied Physics, 2009, , 17-62.	0.8	3
72	Experimental and theoretical investigations of absorbance spectra for edge-plasma monitoring in fusion reactors. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1549-1562.	2.3	10

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73	Multiscale heat conduction near a disclination. Europhysics Letters, 2008, 82, 66003.	2.0	4
74	Carbon Dust Growth in a Radiofrequency Discharge. AIP Conference Proceedings, 2008, , .	0.4	3
75	Monte Carlo Simulation of Heat Pulse Propagation in Silicon Nanostructure. , 2008, , .		0
76	FDTD Study of the Surface Waves Detection in Apertureless Scanning Near-Field Microscopy. , 2008, , .		0
77	Monte Carlo modeling of phonon transport in nanodevices. Journal of Physics: Conference Series, 2007, 92, 012078.	0.4	5
78	Numerical simulation of transient phonon heat transfer in silicon nanowires and nanofilms. Journal of Physics: Conference Series, 2007, 92, 012077.	0.4	8
79	Prediction of the thermal conductivity of nanofilms. Journal of Physics: Conference Series, 2007, 92, 012080.	0.4	2
80	Numerical simulation of a water sprayâ€"Radiation attenuation related to spray dynamics. International Journal of Thermal Sciences, 2007, 46, 856-868.	4.9	51
81	Monte Carlo simulation of phonon confinement in silicon nanostructures: Application to the determination of the thermal conductivity of silicon nanowires. Applied Physics Letters, 2006, 89, 103104.	3.3	100
82	Radiative and Conductive Heat Exchanges in High-Temperature Glass Melt with the Finite-Volume Method Approach. Influence of Several Spatial Differencing Schemes on RTE Solution. Numerical Heat Transfer; Part A: Applications, 2006, 49, 567-588.	2.1	11
83	On radiative transfer in water spray curtains using the discrete ordinates method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 92, 85-110.	2.3	35
84	Monte Carlo transient phonon transport in silicon and germanium at nanoscales. Physical Review B, 2005, 72, .	3.2	203
85	Radiative and conductive heat transfer in a nongrey semitransparent medium. Application to fire protection curtains. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 86, 9-30.	2.3	35
86	Transient combined radiation and conduction heat transfer in fibrous media with temperature and flux boundary conditions. International Journal of Thermal Sciences, 2004, 43, 939-950.	4.9	31
87	Coupled radiative and conductive heat transfer in a non-grey absorbing and emitting semitransparent media under collimated radiation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 589-609.	2.3	35
88	Spectroscopic studies of GTA welding plasmas. Temperature calculation and dilution measurement. EPJ Applied Physics, 1999, 8, 61-69.	0.7	3
89	Solution of the radiative transfer equation in an absorbing and scattering Nd:YAG laser-induced plume. Journal of Applied Physics, 1998, 84, 2443-2449.	2.5	41
90	Spectroscopic characterization of laser-induced plasma created during welding with a pulsed Nd:YAG laser. Journal of Applied Physics, 1997, 81, 6599-6606.	2.5	108

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91	<title>Spectroscopic studies of laser-induced plume during welding with an Nd:YAG laser</title>. , 1996, , .		4