

Pierre-Olivier Chapuis

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,557
citations

430442

18
h-index

301761

39
g-index

61
all docs

61
docs citations

61
times ranked

1592
citing authors

#	ARTICLE	IF	CITATIONS
1	Scanning thermal microscopy: A review. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 477-494.	0.8	201
2	Effects of spatial dispersion in near-field radiative heat transfer between two parallel metallic surfaces. <i>Physical Review B</i> , 2008, 77, .	1.1	159
3	Blackbody Spectrum Revisited in the Near Field. <i>Physical Review Letters</i> , 2013, 110, 146103.	2.9	117
4	Lifetimes of Confined Acoustic Phonons in Ultrathin Silicon Membranes. <i>Physical Review Letters</i> , 2013, 110, 095503.	2.9	96
5	Radiative heat transfer between metallic nanoparticles. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	85
6	Phonons in Slow Motion: Dispersion Relations in Ultrathin Si Membranes. <i>Nano Letters</i> , 2012, 12, 3569-3573.	4.5	83
7	Near-Field Thermophotovoltaic Conversion with High Electrical Power Density and Cell Efficiency above 14%. <i>Nano Letters</i> , 2021, 21, 4524-4529.	4.5	79
8	Nanoscale heat transfer at contact between a hot tip and a substrate. <i>International Journal of Heat and Mass Transfer</i> , 2006, 49, 251-258.	2.5	77
9	Impacts of propagating, frustrated and surface modes on radiative, electrical and thermal losses in nanoscale-gap thermophotovoltaic power generators. <i>Scientific Reports</i> , 2015, 5, 11626.	1.6	77
10	Near-field induction heating of metallic nanoparticles due to infrared magnetic dipole contribution. <i>Physical Review B</i> , 2008, 77, .	1.1	66
11	Heat transfer between a nano-tip and a surface. <i>Nanotechnology</i> , 2006, 17, 2978-2981.	1.3	48
12	Strong tip-sample coupling in thermal radiation scanning tunneling microscopy. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 136, 1-15.	1.1	46
13	Analysis of heat transfer in the water meniscus at the tip-sample contact in scanning thermal microscopy. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 442001.	1.3	33
14	Micron-sized liquid nitrogen-cooled indium antimonide photovoltaic cell for near-field thermophotovoltaics. <i>Optics Express</i> , 2019, 27, A11.	1.7	31
15	Polymer nanoparticles to decrease thermal conductivity of phase change materials. <i>Thermochemica Acta</i> , 2008, 477, 25-31.	1.2	30
16	Spectrally shaping high-temperature radiators for thermophotovoltaics using Mo-HfO ₂ trilayer-on-substrate structures. <i>Optics Express</i> , 2018, 26, 4346.	1.7	24
17	High-injection effects in near-field thermophotovoltaic devices. <i>Scientific Reports</i> , 2017, 7, 15860.	1.6	23
18	Radiative heat transfer at the nanoscale: experimental trends and challenges. <i>Nanoscale Horizons</i> , 2021, 6, 201-208.	4.1	23

#	ARTICLE	IF	CITATIONS
19	Non-idealities in the 3D method for thermal characterization in the low- and high-frequency regimes. AIP Advances, 2018, 8, .	0.6	16
20	Native-oxide limited cross-plane thermal transport in suspended silicon membranes revealed by scanning thermal microscopy. Applied Physics Letters, 2017, 111, .	1.5	15
21	Indium antimonide photovoltaic cells for near-field thermophotovoltaics. Solar Energy Materials and Solar Cells, 2019, 203, 110190.	3.0	15
22	Swift heavy ion irradiation reduces porous silicon thermal conductivity. Nuclear Instruments & Methods in Physics Research B, 2014, 341, 27-31.	0.6	14
23	Temperature Study of Sub-Micrometric ICs by Scanning Thermal Microscopy. IEEE Transactions on Components and Packaging Technologies, 2007, 30, 424-431.	1.4	13
24	Thickness-dependent thermal properties of amorphous insulating thin films measured by photoreflectance microscopy. Thin Solid Films, 2017, 642, 157-162.	0.8	13
25	Microfabricated sensor platform with through-glass vias for bidirectional 3-omega thermal characterization of solid and liquid samples. Sensors and Actuators A: Physical, 2018, 278, 33-42.	2.0	13
26	Heat transfer between a hot AFM tip and a cold sample: impact of the air pressure. Materials Research Society Symposia Proceedings, 2013, 1543, 159-164.	0.1	12
27	Spectral and total temperature-dependent emissivities of few-layer structures on a metallic substrate. Optics Express, 2016, 24, A374.	1.7	12
28	SThM-based local thermomechanical analysis: Measurement intercomparison and uncertainty analysis. International Journal of Thermal Sciences, 2020, 156, 106502.	2.6	12
29	Coherent regime and far-to-near-field transition for radiative heat transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 187, 310-321.	1.1	11
30	GaAs-based near-field thermophotonic devices: Approaching the idealized case with one-dimensional PN junctions. Solar Energy Materials and Solar Cells, 2022, 238, 111594.	3.0	11
31	Radial dependence of thermal transport in silicon nanowires. JPhys Materials, 2019, 2, 015002.	1.8	9
32	Increase of thermal resistance between a nanostructure and a surface due to phonon multireflections. Journal of Applied Physics, 2008, 103, 034306.	1.1	8
33	Near-field radiative heat transfer in scanning thermal microscopy computed with the boundary element method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 202, 154-167.	1.1	8
34	Thermal conductivity of irradiated porous silicon down to the oxide limit investigated by Raman thermometry and scanning thermal microscopy. Journal of Applied Physics, 2020, 128, .	1.1	8
35	Coupling Mesoscopic Boltzmann Transport Equation and Macroscopic Heat Diffusion Equation for Multiscale Phonon Heat Conduction. Nanoscale and Microscale Thermophysical Engineering, 2020, 24, 150-167.	1.4	8
36	Scanning thermal microscopy on samples of varying effective thermal conductivities and identical flat surfaces. Journal of Applied Physics, 2020, 128, 235301.	1.1	8

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37	Spatial and spectral distributions of thermal radiation emitted by a semi-infinite body and absorbed by a flat film. AIP Advances, 2015, 5, 057106.	0.6	7
38	Temperature-dependent and optimized thermal emission by spheres. Applied Physics Letters, 2018, 112, .	1.5	7
39	Temperature dependence of near-field radiative heat transfer above room temperature. Materials Today Physics, 2021, 21, 100562.	2.9	6
40	Impact of roughness on heat conduction involving nanocontacts. Applied Physics Letters, 2021, 119, .	1.5	5
41	Fine control of critical dimension for the fabrication of large bandgap high frequency photonic and phononic crystals. Microelectronic Engineering, 2011, 88, 2233-2235.	1.1	4
42	Thermal boundary conductance of CVD-grown MoS2 monolayer-on-silica substrate determined by scanning thermal microscopy. Applied Physics Letters, 2022, 120, .	1.5	4
43	Chapter 3. Introduction to Heat Transfer at the Nanoscale. RSC Nanoscience and Nanotechnology, 2015, , 39-81.	0.2	3
44	Heat dissipation in partially perforated phononic nano-membranes with periodicities below 100 nm. APL Materials, 2022, 10, 051113.	2.2	3
45	Reducing Thermal Radiation Between Parallel Plates in the Far-to-Near Field Transition Regime. , 2014, , .		2
46	Thermal Characterization of a Microfluidic Cell using the 3ω Method. , 2007, , .		1
47	Heat Transfer between a Self-Heated Scanning Thermal Microscopy Probe and a Cold Sample: Impact of the Probe Temperature. Materials Research Society Symposia Proceedings, 2013, 1557, 1.	0.1	1
48	Thermal conductivity measurements with the 3ω method and scanning thermal microscopy. , 2013, , .		1
49	Thermal transport phenomena beyond the diffusive regime. , 2016, , .		1
50	Phononic thermal resistance due to a finite periodic array of nano-scatterers. Journal of Applied Physics, 2016, 120, 044305.	1.1	1
51	Calibration methodologies for scanning thermal microscopy. , 2016, , .		1
52	Transition from the incoherent to the coherent regime for propagative-wave based thermal radiation. Journal of Physics: Conference Series, 2016, 676, 012023.	0.3	1
53	Thermal Measurements. , 2018, , 303-332.		1
54	Chapter 9. Scanning Thermal Microscopy. RSC Nanoscience and Nanotechnology, 2015, , 273-314.	0.2	1

#	ARTICLE	IF	CITATIONS
55	Effect of Phonon Confinement on the Dispersion Relation and Heat Capacity in Nanoscale Si Membranes. , 2012, , .		0
56	Microelectronics thin films and boundaries characterized by local electro-thermal measurements. , 2017, , .		0
57	Local Thermophysical Properties Measurements on Polymers using Doped Silicon SThM Probe: Uncertainty Analysis and Interlaboratory Comparison. , 2018, , .		0
58	3D hybrid bonding assembly studied by scanning thermal microscopy, resistive thermometry and Finite Element Modelling. , 2018, , .		0
59	Thermal Radiation Involving Metallic Nanoparticles in the Near Field. , 2007, , .		0
60	Microfluidic Cell Heating Characterized by 3-İ% Measurements. , 2008, , .		0