Pierre-Olivier Chapuis

List of Publications by Year
in descending order

60	1,557	430442 18	301761 39
papers	citations	h-index	g-index

61	61	61	1592
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Heat dissipation in partially perforated phononic nano-membranes with periodicities below 100 nm. APL Materials, 2022, 10, 051113.	2.2	3
3	Thermal boundary conductance of CVD-grown MoS2 monolayer-on-silica substrate determined by scanning thermal microscopy. Applied Physics Letters, 2022, 120, .	1.5	4
4	Radiative heat transfer at the nanoscale: experimental trends and challenges. Nanoscale Horizons, 2021, 6, 201-208.	4.1	23
5	Near-Field Thermophotovoltaic Conversion with High Electrical Power Density and Cell Efficiency above 14%. Nano Letters, 2021, 21, 4524-4529.	4.5	79
6	Impact of roughness on heat conduction involving nanocontacts. Applied Physics Letters, 2021, 119, .	1.5	5
7	Temperature dependence of near-field radiative heat transfer above room temperature. Materials Today Physics, 2021, 21, 100562.	2.9	6
8	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
9	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
10	SThM-based local thermomechanical analysis: Measurement intercomparison and uncertainty analysis. International Journal of Thermal Sciences, 2020, 156, 106502.	2.6	12
11	Scanning thermal microscopy on samples of varying effective thermal conductivities and identical flat surfaces. Journal of Applied Physics, 2020, 128, 235301.	1.1	8
12	Indium antimonide photovoltaic cells for near-field thermophotovoltaics. Solar Energy Materials and Solar Cells, 2019, 203, 110190.	3.0	15
13	Radial dependence of thermal transport in silicon nanowires. JPhys Materials, 2019, 2, 015002.	1.8	9
14	Micron-sized liquid nitrogen-cooled indium antimonide photovoltaic cell for near-field thermophotovoltaics. Optics Express, 2019, 27, A11.	1.7	31
15	Temperature-dependent and optimized thermal emission by spheres. Applied Physics Letters, 2018, 112, .	1.5	7
16	Local Thermophysical Properties Measurements on Polymers using Doped Silicon SThM Probe: Uncertainty Analysis and Interlaboratory Comparison. , 2018, , .		0
17	Non-idealities in the 3Ï‰ method for thermal characterization in the low- and high-frequency regimes. AIP Advances, 2018, 8, .	0.6	16
18	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

#	Article	IF	Citations
19	Thermal Measurements. , 2018, , 303-332.		1
20	3D hybrid bonding assembly studied by scanning thermal microscopy, resistive thermometry and Finite Element Modelling. , 2018, , .		0
21	Spectrally shaping high-temperature radiators for thermophotovoltaics using Mo-HfO₂ trilayer-on-substrate structures. Optics Express, 2018, 26, 4346.	1.7	24
22	Thickness-dependent thermal properties of amorphous insulating thin films measured by photoreflectance microscopy. Thin Solid Films, 2017, 642, 157-162.	0.8	13
23	Native-oxide limited cross-plane thermal transport in suspended silicon membranes revealed by scanning thermal microscopy. Applied Physics Letters, 2017, 111, .	1.5	15
24	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
25	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
26	High-injection effects in near-field thermophotovoltaic devices. Scientific Reports, 2017, 7, 15860.	1.6	23
27	Microelectronics thin films and boundaries characterized by local electro-thermal measurements. , 2017, , .		0
28	Thermal transport phenomena beyond the diffusive regime. , 2016, , .		1
29	Phononic thermal resistance due to a finite periodic array of nano-scatterers. Journal of Applied Physics, 2016, 120, 044305.	1.1	1
30	Spectral and total temperature-dependent emissivities of few-layer structures on a metallic substrate. Optics Express, 2016, 24, A374.	1.7	12
31	Calibration methodologies for scanning thermal microscopy. , 2016, , .		1
32	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
33	Impacts of propagating, frustrated and surface modes on radiative, electrical and thermal losses in nanoscale-gap thermophotovoltaic power generators. Scientific Reports, 2015, 5, 11626.	1.6	77
34	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
35	Scanning thermal microscopy: A review. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 477-494.	0.8	201
36	Chapter 3. Introduction to Heat Transfer at the Nanoscale. RSC Nanoscience and Nanotechnology, 2015, , 39-81.	0.2	3

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37	Chapter 9. Scanning Thermal Microscopy. RSC Nanoscience and Nanotechnology, 2015, , 273-314.	0.2	1
38	Strong tipâ€“sample coupling in thermal radiation scanning tunneling microscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 136, 1-15.	1.1	46
39	Analysis of heat transfer in the water meniscus at the tip-sample contact in scanning thermal microscopy. Journal Physics D: Applied Physics, 2014, 47, 442001.	1.3	33
40	Swift heavy ion irradiation reduces porous silicon thermal conductivity. Nuclear Instruments & Methods in Physics Research B, 2014, 341, 27-31.	0.6	14
41	Reducing Thermal Radiation Between Parallel Plates in the Far-to-Near Field Transition Regime. , 2014, , .		2
42	Lifetimes of Confined Acoustic Phonons in Ultrathin Silicon Membranes. Physical Review Letters, 2013, 110, 095503.	2.9	96
43	Blackbody Spectrum Revisited in the Near Field. Physical Review Letters, 2013, 110, 146103.	2.9	117
44	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
45	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
46	Thermal conductivity measurements with the 3ω method and scanning thermal microscopy. , 2013, , .		1
47	Effect of Phonon Confinement on the Dispersion Relation and Heat Capacity in Nanoscale Si Membranes. , 2012, , .		0
48	Phonons in Slow Motion: Dispersion Relations in Ultrathin Si Membranes. Nano Letters, 2012, 12, 3569-3573.	4.5	83
49	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
50	Polymer nanoparticles to decrease thermal conductivity of phase change materials. Thermochimica Acta, 2008, 477, 25-31.	1.2	30
51	Increase of thermal resistance between a nanostructure and a surface due to phonon multireflections. Journal of Applied Physics, 2008, 103, 034306.	1.1	8
52	Near-field induction heating of metallic nanoparticles due to infrared magnetic dipole contribution. Physical Review B, 2008, 77, .	1.1	66
53	Radiative heat transfer between metallic nanoparticles. Applied Physics Letters, 2008, 92, .	1.5	85
54	Effects of spatial dispersion in near-field radiative heat transfer between two parallel metallic surfaces. Physical Review B, 2008, 77, .	1.1	159

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55	Microfluidic Cell Heating Characterized by 3-Ï‰ Measurements. , 2008, , .		0
56	Temperature Study of Sub-Micrometric ICs by Scanning Thermal Microscopy. IEEE Transactions on Components and Packaging Technologies, 2007, 30, 424-431.	1.4	13
57	Thermal Characterization of a Microfluidic Cell using the 3ω Method. , 2007, , .		1
58	Thermal Radiation Involving Metallic Nanoparticles in the Near Field. , 2007, , .		0
59	Nanoscale heat transfer at contact between a hot tip and a substrate. International Journal of Heat and Mass Transfer, 2006, 49, 251-258.	2.5	77
60	Heat transfer between a nano-tip and a surface. Nanotechnology, 2006, 17, 2978-2981.	1.3	48