Amy M Marconnet

List of Publications by Year
in descending order

84	4,039	304602	155592
papers	citations	22 h-index	55 g-index

85	85	85	5573
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Solar steam generation by heat localization. Nature Communications, 2014, 5, 4449.	5.8	1,623
2	Thermal Conduction in Aligned Carbon Nanotubeâ€“Polymer Nanocomposites with High Packing Density. ACS Nano, 2011, 5, 4818-4825.	7.3	425
3	Thermal conduction phenomena in carbon nanotubes and related nanostructured materials. Reviews of Modern Physics, 2013, 85, 1295-1326.	16.4	365
4	Thermal Cycling, Mechanical Degradation, and the Effective Figure of Merit of a Thermoelectric Module. Journal of Electronic Materials, 2013, 42, 372-381.	1.0	118
5	From the Casimir Limit to Phononic Crystals: 20 Years of Phonon Transport Studies Using Silicon-on-Insulator Technology. Journal of Heat Transfer, 2013, 135, .	1.2	99
6	Thermoelectric properties and performance of flexible reduced graphene oxide films up to 3,000 K. Nature Energy, 2018, 3, 148-156.	19.8	96
7	Thermally Conductive Reduced Graphene Oxide Thin Films for Extreme Temperature Sensors. Advanced Functional Materials, 2019, 29, 1901388.	7.8	81
8	Continuous Carbon Nanotube-Based Fibers and Films for Applications Requiring Enhanced Heat Dissipation. ACS Applied Materials & Interfaces, 2016, 8, 17461-17471.	4.0	70
9	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 127-165.	1.4	69
10	Optically Transparent Thermally Insulating Silica Aerogels for Solar Thermal Insulation. ACS Applied Materials & Interfaces, 2018, 10, 12603-12611.	4.0	69
11	Enhancing solid-liquid interface thermal transport using self-assembled monolayers. Applied Physics Letters, 2015, 106, .	1.5	65
12	Thermal conductivity in porous silicon nanowire arrays. Nanoscale Research Letters, 2012, 7, 554.	3.1	64
13	Effects of heat treatment on the thermal properties of highly nanoporous graphene aerogels using the infrared microscopy technique. International Journal of Heat and Mass Transfer, 2014, 76, 122-127.	2.5	56
14	Phonon Conduction in Periodically Porous Silicon Nanobridges. Nanoscale and Microscale Thermophysical Engineering, 2012, 16, 199-219.	1.4	54
15	Thermal and electrical properties of graphene/carbon nanotube aerogels. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 445, 48-53.	2.3	54
16	Nanostructured Interfaces for Thermoelectrics. Journal of Electronic Materials, 2010, 39, 1456-1462.	1.0	50
17	Experimental investigation of Phase Change Materials for thermal management of handheld devices. International Journal of Thermal Sciences, 2018, 129, 358-364.	2.6	49
18	Heat Generation and Thermal Transport in Lithium-Ion Batteries: A Scale-Bridging Perspective. Nanoscale and Microscale Thermophysical Engineering, 2019, 23, 128-156.	1.4	43

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19	Wide range continuously tunable and fast thermal switching based on compressible graphene composite foams. Nature Communications, 2021, 12, 4915.	5.8	41
20	Energy efficient membrane distillation through localized heating. Desalination, 2018, 442, 99-107.	4.0	33
21	Viscosity and Thermal Conductivity of Stable Graphite Suspensions Near Percolation. Nano Letters, 2015, 15, 127-133.	4.5	32
22	Phonon Conduction in Silicon Nanobeam Labyrinths. Scientific Reports, 2017, 7, 6233.	1.6	28
23	A thin film efficient pn-junction thermoelectric device fabricated by self-align shadow mask. Scientific Reports, 2020, 10, 1067.	1.6	25
24	Measurement of interfacial thermal conductance in Lithium ion batteries. Journal of Power Sources, 2017, 343, 431-436.	4.0	23
25	Cosmetically Adaptable Transparent Strain Sensor for Sensitively Delineating Patterns in Small Movements of Vital Human Organs. ACS Applied Materials & Interfaces, 2018, 10, 44126-44133.	4.0	23
26	Assessment of Thermal Properties via Nanosecond Thermoreflectance Method. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 245-257.	1.4	22
27	Dynamically tunable thermal transport in polycrystalline graphene by strain engineering. Carbon, 2020, 158, 63-68.	5.4	19
28	Heat Capacity, Thermal Conductivity, and Interface Resistance Extraction for Single-Walled Carbon Nanotube Films Using Frequency-Domain Thermoreflectance. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 1524-1532.	1.4	18
29	Reactive Metal Bonding of Carbon Nanotube Arrays for Thermal Interface Applications. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 1906-1913.	1.4	18
30	Microscopic Evaluation of Electrical and Thermal Conduction in Random Metal Wire Networks. ACS Applied Materials & Interfaces, 2017, 9, 13703-13712.	4.0	18
31	Thermal Conductivity of Ultrahigh Molecular Weight Polyethylene: From Fibers to Fabrics. ACS Applied Polymer Materials, 2020, 2, 437-447.	2.0	17
32	Thermal and mechanical characterization of high performance polymer fabrics for applications in wearable devices. Scientific Reports, 2021, 11, 8705.	1.6	17
33	Inverse Conduction Heat Transfer and Kriging Interpolation Applied to Temperature Sensor Location in Microchips. Journal of Electronic Packaging, Transactions of the ASME, 2018, 140, .	1.2	16
34	Experimental Investigation of Composite Phase Change Material Heat Sinks for Enhanced Passive Thermal Management. Journal of Heat Transfer, 2021, 143, .	1.2	16
35	Machine-learning assisted optimization strategies for phase change materials embedded within electronic packages. Applied Thermal Engineering, 2021, 199, 117384.	3.0	15
36	A reliability study with infrared imaging of thermoelectric modules under thermal cycling. , 2012, , .		13

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37	Solder-bonded carbon nanotube thermal interface materials. , 2012, , .		13
38	Solid phase crystallization of hot-wire CVD amorphous silicon films. Materials Research Society Symposia Proceedings, 2005, 862, 1051.	0.1	12
39	Cold sintering to form bulk maghemite for characterization beyond magnetic properties. International Journal of Ceramic Engineering & Science, 2019, 1, 119-124.	0.5	11
40	Thermoelectric Characterization and Power Generation Using a Silicon-on-Insulator Substrate. Journal of Microelectromechanical Systems, 2012, 21, 4-6.	1.7	10
41	Infrared Microscopy Enhanced Ã...ngstrÃ¶m's Method for Thermal Diffusivity of Polymer Monofilaments and Films. Journal of Heat Transfer, 2019, 141, .	1.2	10
42	Effect of thermal cycling on commercial thermoelectric modules. , 2012, , .		9
43	Sensitivity Coefficient-Based Inverse Heat Conduction Method for Identifying Hot Spots in Electronics Packages: A Comparison of Grid-Refinement Methods. Journal of Electronic Packaging, Transactions of the ASME, 2022, 144, .	1.2	9
44	Reevaluating the suppression function for phonon transport in nanostructures by Monte Carlo techniques. Journal of Applied Physics, 2019, 125, 034301.	1.1	8
45	A direct differential method for measuring thermal conductivity of thin films. Review of Scientific Instruments, 2017, 88, 044901.	0.6	7
46	Microwave-Induced Mass Transport Enhancement in Nano-Porous Aluminum Oxide Membranes. Journal of Microwave Power and Electromagnetic Energy, 2007, 42, 13-22.	0.4	6
47	Thermal conductivity and photoluminescence of light-emitting silicon nitride films. Applied Physics Letters, 2012, 100, .	1.5	6
48	Tuning the Anisotropy of In-Plane Thermal Conduction in Thin Films by Modulating Thickness. Physical Review Applied, 2018, 9, .	1.5	6
49	Cascaded Multicore Vapor Chambers for Intrapackage Spreading of High-Power, Heterogeneous Heat Loads. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 944-954.	1.4	6
50	Techno-economic analysis of metal-hydride energy storage to enable year-round load-shifting for residential heat pumps. Energy and Buildings, 2022, 256, 111700.	3.1	6
51	Hydrodynamic and Thermal Performance of a Vapor-Venting Microchannel Copper Heat Exchanger. , 2008, , .		5
52	Using Do-It-Yourself Practitioners as Lead Users: A Case Study on the Hair Care Industry. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	5
53	Tuning Interparticle Contacts and Transport Properties of Maghemiteâ€“Thermoset Nanocomposites by Applying Oscillating Magnetic Fields. ACS Applied Materials & Interfaces, 2022, 14, 16601-16610.	4.0	5
54	Side-by-side comparison between infrared and thermoreflectance imaging using a thermal test chip with embedded diode temperature sensors. , 2012, , .		4

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55	3D Packaging Materials Based on Graphite Nanoplatelet and Aluminum Nitride Nanocomposites. , 2013, , .		4
56	Passive Thermal Management Using Phase Change Materials: Experimental Evaluation of Thermal Resistances. , 2015, , .		4
57	Microscale two-dimensional (2D) temperature mapping by ratiometric fluorescence imaging under orthogonal excitations. Experimental Thermal and Fluid Science, 2018, 94, 168-171.	1.5	4
58	Vapor stem bubbles dominate heat transfer enhancement in extremely confined boiling. International Journal of Heat and Mass Transfer, 2021, 177, 121520.	2.5	4
59	Micromachined step-tapered high frequency waveguide inserts and antennas. , 2008, , .		3
60	Temperature-Dependent Permeability of Microporous Membranes for Vapor Venting Heat Exchangers. , 2008, , .		3
61	In-plane thermal conductivity measurement on nanoscale conductive materials with on-substrate device configuration. , 2012, , .		3
62	Investigation of aluminum foams and graphite fillers for improving the thermal conductivity of paraffin wax-based phase change materials. , 2017, , .		3
63	A Cascaded Multi-Core Vapor Chamber for Intra-Lid Heat Spreading in Heterogeneous Packages. , 2020, , .		3
64	Uncertainty Propagation Through a Simulation of Industrial High Pressure Die Casting. Journal of Heat Transfer, 2019, 141, .	1.2	3
65	Microfabricated Silicon High-Frequency Waveguide Couplers and Antennas. IEEE Transactions on Electron Devices, 2009, 56, 721-729.	1.6	2
66	Fast transient and steady state thermal imaging of CMOS integrated circuit chips considering package thermal boundaries. , 2012, , .		2
67	Nanoscale conformable coatings for enhanced thermal conduction of carbon nanotube films. , 2012, , .		2
68	Integrating Design Methodology, Thermal Sciences, and Customer Needs to Address Challenges in the Hair Care Industry. , 2015, , .		2
69	Thermal conduction in graphite flake-epoxy composites using infrared microscopy. , 2017, , .		2
70	Uncertainty Quantification for a High Temperature Z-Meter Characterization System. , 2018, , .		2
71	A Measurement Technique for Thermal Conductivity Characterization of Ultra-High Molecular Weight Polyethylene Yarns Using High-Resolution Infrared Microscopy. , 2019, , .		2
72	Identifying Hot Spots in Electronics Packages with a Sensitivity-Coefficient Based Inverse Heat Conduction Method. , 2019, , .		2

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73	Measurement of hair thermal diffusivity with infrared microscopy enhanced Ã...ngstrÃ¶m's method. Materialia, 2020, 12, 100733.	1.3	2
74	Investigation of Thermal Properties and Thermal Reliability of Ga-based Low Melting Temperature Alloys as Thermal Interface Materials (TIMs). Minerals, Metals and Materials Series, 2022, , 1385-1395.	0.3	2
75	Phonon thermal conduction in periodically porous silicon nanobeams. , 2014, , .		1
76	Experimental characterization of thermal conductance across the separator-shell interface in dry cylindrical lithium ion batteries. , 2017, , .		1
77	Heat Transfer Property Approximation for Phase Change Materials in High Heat Flux Environments. , 2022, , .		1
78	Microfabricated THz-regime Waveguides. , 2007, , .		0
79	Combined Experimental-Numerical Investigation of Metal-Wax Interactions for Phase Change Thermal Energy Storage. , 2018, , .		0
80	Confined Immersion Cooling in Microscale Gaps. , 2020, , .		0
81	Impact of Squeezing on the Microstructure of Thermal Interface Materials. , 2021, , .		0
82	Optimization of an Embedded Phase Change Material Cooling Strategy Using Machine Learning. , 2021, , .		0
83	Characterizing Thermal Transport to Inform Process Design. ECS Meeting Abstracts, 2018, , .	0.0	0
84	Infrared Microscopy for Characterizing Thermal Transport in Lithium-Ion Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0