Sreekant Vj Narumanchi

List of Publications by Year
in descending order

59 papers	1,219 citations	516710 16 h-index	434195 31 g-index
61 all docs	61 docs citations	61 times ranked	1107 citing authors

#	Article	IF	Citations
1	Electric-Drive Vehicle Power Electronics Thermal Management: Current Status, Challenges, and Future Directions. Journal of Electronic Packaging, Transactions of the ASME, 2022, 144, .	1.8	27
2	Reliability and Lifetime Prediction Model of Sintered Silver Under High-Temperature Cycling. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 5181-5191.	5.4	7
3	Validation and Parametric Investigations of an Internal Permanent Magnet Motor Using a Lumped Parameter Thermal Model. Journal of Electronic Packaging, Transactions of the ASME, 2022, 144, .	1.8	8
4	Single-Phase Dielectric Fluid Thermal Management for Power-Dense Automotive Power Electronics. IEEE Transactions on Power Electronics, 2022, 37, 12474-12485.	7.9	10
5	Energy Use in Quantum Data Centers: Scaling the Impact of Computer Architecture, Qubit Performance, Size, and Thermal Parameters. IEEE Transactions on Sustainable Computing, 2022, 7, 864-874.	3.1	6
6	Experimental and numerical study of heat transfer characteristics of single-phase free-surface fan jet impingement with automatic transmission fluid. International Journal of Heat and Mass Transfer, 2021, 166, 120731.	4.8	5
7	The rise of electric vehiclesâ€"2020 status and future expectations. Progress in Energy, 2021, 3, 022002.	10.9	132
8	Thermal and Mechanical Design of a High-Voltage Power Electronics Package. , 2021, , .		1
9	Dielectric Fluids for the Direct Forced Convection Cooling of Power Electronics. , 2021, , .		2
10	Packaging of an 8-kV Silicon Carbide Diode Module with Double-Side Cooling and Sintered-Silver Joints. , 2021, , .		9
11	A perspective on the electro-thermal co-design of ultra-wide bandgap lateral devices. Applied Physics Letters, 2021, 119, .	3.3	28
12	Parametric Design Study of a Power Electronics Package for Improving Solder Joint Reliability. , 2020, , .		1
13	Guest Editorial: Interpack 2019. Journal of Electronic Packaging, Transactions of the ASME, 2020, , .	1.8	0
14	Validation and Parametric Investigations Using a Lumped Thermal Parameter Model of an Internal Permanent Magnet Motor. , 2020, , .		1
15	Comparison of Thermal Management Approaches for Integrated Traction Drives in Electric Vehicles. , 2020, , .		0
16	Modeling and Analysis of Gallium Oxide Vertical Transistors. ECS Journal of Solid State Science and Technology, 2019, 8, Q3202-Q3205.	1.8	21
17	Liquid-Cooled Aluminum Silicon Carbide Heat Sinks for Reliable Power Electronics Packages. Journal of Electronic Packaging, Transactions of the ASME, 2019, 141, .	1.8	9
18	Modeling Needs for Power Semiconductor Devices and Power Electronics Systems. , 2019, , .		3

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19	Nucleate pool boiling of R-245fa at low saturation temperatures for hydrogen precooling applications. International Journal of Heat and Mass Transfer, 2019, 132, 172-183.	4.8	6
20	Experimental characterization and modeling of thermal resistance of electric machine lamination stacks. International Journal of Heat and Mass Transfer, 2019, 129, 152-159.	4.8	14
21	Surface Temperature Effect on Convective Heat Transfer Coefficients for Jet Impingement Cooling of Electric Machines With Automatic Transmission Fluid. , 2019, , .		7
22	Electrothermal Modeling and Analysis of Gallium Oxide Power Switching Devices. , 2019, , .		2
23	Mechanical Characterization Study of Sintered Silver Pastes Bonded in a Double-Lap Configuration. , 2018, , .		2
24	Thermal and Thermomechanical Modeling to Design a Gallium Oxide Power Electronics Package. , 2018, , .		8
25	Ultracompliant Heterogeneous Copperâ€“Tin Nanowire Arrays Making a Supersolder. Nano Letters, 2018, 18, 3586-3592.	9.1	15
26	Transient Liquid Phase Bonding of AlN to AlSiC for Durable Power Electronic Packages. Advanced Engineering Materials, 2018, 20, 1800039.	3.5	16
27	Metalâ€“Organicâ€“Inorganic Nanocomposite Thermal Interface Materials with Ultralow Thermal Resistances. ACS Applied Materials & Interfaces, 2017, 9, 10120-10127.	8.0	17
28	Local-Scale Simulations of Nucleate Boiling on Micrometer-Featured Surfaces. , 2017, , .		0
29	Evaluation of performance and opportunities for improvements in automotive power electronics systems. , 2016, , .		13
30	Thermal management and reliability of power electronics and electric machines. , 2016, , .		1
31	Reliability of Emerging Bonded Interface Materials for Large-Area Attachments. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 40-49.	2.5	17
32	General multilayer heat transfer model for optical-based thermal characterization techniques. International Journal of Heat and Mass Transfer, 2016, 93, 695-706.	4.8	9
33	Nanothermal Interface Materials: Technology Review and Recent Results. Journal of Electronic Packaging, Transactions of the ASME, 2015, 137, .	1.8	92
34	Bubble dynamics and nucleate pool boiling heat transfer on microporous copper surfaces. International Journal of Heat and Mass Transfer, 2015, 89, 1297-1315.	4.8	112
35	Effects of Pressure and a Microporous Coating on HFC-245fa Pool Boiling Heat Transfer. Journal of Heat Transfer, 2014, 136, .	2.1	15
36	Effect of flow rate and subcooling on spray heat transfer on microporous copper surfaces. International Journal of Heat and Mass Transfer, 2014, 69, 493-505.	4.8	38

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37	Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. IEEE Electrification Magazine, 2014, 2, 42-49.	1.8	14
38	Thermal performance and reliability characterization of bonded interface materials (BIMs). , 2014, , .		8
39	Advanced liquid cooling for a traction drive inverter using jet impingement and microfinned enhanced surfaces. , 2014, , .		13
40	Novel power electronics three-dimensional heat exchanger. , 2014, , .		4
41	Investigation of thermal interface materials using phase-sensitive transient thermoreflectance technique. , 2014, , .		3
42	Passive two-phase cooling for automotive power electronics. , 2014, , .		2
43	Microstructured Surfaces for Single-Phase Jet Impingement Heat Transfer Enhancement. Journal of Thermal Science and Engineering Applications, 2013, 5, .	1.5	14
44	Effects of Pressure and a Microporous Coating on HFC-245fa Pool Boiling Heat Transfer. , 2013, , .		1
45	Reliability of Bonded Interfaces for Automotive Power Electronics. , 2013, , .		9
46	Pool Boiling Heat Transfer Characteristics of HFO-1234yf on Plain and Microporous-Enhanced Surfaces. Journal of Heat Transfer, 2013, 135, .	2.1	24
47	Thermal conductance at atomically clean and disordered silicon/aluminum interfaces: A molecular dynamics simulation study. Journal of Applied Physics, 2012, 112, .	2.5	16
48	Design of light-weight, single-phase liquid-cooled heat exchanger for automotive power electronics. , 2012, , .		17
49	Thermal Performance and Reliability of Large-Area Bonded Interfaces in Power Electronics Packages. , 2011, , .		0
50	Pool Boiling Heat Transfer Characteristics of HFO-1234yf With and Without Microporous-Enhanced Surfaces. , 2011, , .		6
51	Molecular Dynamics Modeling of Thermal Conductance at Atomically Clean and Disordered Silicon/Aluminum Interfaces. , 2011, , .		1
52	Molecular Dynamics Modeling of Heat Transport in Metals and Semiconductors. , 2010, , .		0
53	Enhancement of Heat Transfer With Pool and Spray Impingement Boiling on Microporous and Nanowire Surface Coatings. , 2010, , .		5
54	Two-Phase Spray Cooling of Hybrid Vehicle Electronics. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 501-512.	1.3	125

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55	Numerical simulations of nucleate boiling in impinging jets: Applications in power electronics cooling. International Journal of Heat and Mass Transfer, 2008, 51, 1-12.	4.8	61
56	Thermal interface materials for power electronics applications. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	107
57	Single-Phase Self-Oscillating Jets for Enhanced Heat Transfer. IEEE Semiconductor Thermal Measurement and Management Symposium, 2008, , .	0.0	10
58	Two-phase spray cooling of hybrid vehicle electronics. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	16
59	MEMS-enabled thermal management of high-heat-flux devices EDIFICE: embedded droplet impingement for integrated cooling of electronics. Experimental Thermal and Fluid Science, 2001, 25, 231-242.	2.7	109