

William P King

List of Publications by Citations

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232
papers

9,485
citations

45
h-index

89
g-index

250
ext. papers

10,709
ext. citations

6.6
avg, IF

6.24
L-index

#	Paper	IF	Citations
232	Nanoscale thermal transport. II. 2003-2012. <i>Applied Physics Reviews</i> , 2014 , 1, 011305	17.3	1050
231	Nanoscale tunable reduction of graphene oxide for graphene electronics. <i>Science</i> , 2010 , 328, 1373-6	33.3	584
230	High-power lithium ion microbatteries from interdigitated three-dimensional bicontinuous nanoporous electrodes. <i>Nature Communications</i> , 2013 , 4, 1732	17.4	449
229	Nanoscale Joule heating, Peltier cooling and current crowding at graphene-metal contacts. <i>Nature Nanotechnology</i> , 2011 , 6, 287-90	28.7	238
228	Myoblast alignment and differentiation on cell culture substrates with microscale topography and model chemistries. <i>Biomaterials</i> , 2007 , 28, 2202-10	15.6	198
227	Combined microscale mechanical topography and chemical patterns on polymer cell culture substrates. <i>Biomaterials</i> , 2006 , 27, 2487-94	15.6	192
226	Friction characteristics of microtextured surfaces under mixed and hydrodynamic lubrication. <i>Tribology International</i> , 2013 , 57, 170-176	4.9	170
225	Rapid isothermal amplification and portable detection system for SARS-CoV-2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 22727-22735	11.5	164
224	Electrical, Thermal, and Mechanical Characterization of Silicon Microcantilever Heaters. <i>Journal of Microelectromechanical Systems</i> , 2006 , 15, 1644-1655	2.5	162
223	Impact of polymer film thickness and cavity size on polymer flow during embossing: toward process design rules for nanoimprint lithography. <i>Journal of Micromechanics and Microengineering</i> , 2005 , 15, 2414-2425 ¹⁶¹	2.4	161
222	3D printing of shape-conformable thermoelectric materials using all-inorganic Bi ₂ Te ₃ -based inks. <i>Nature Energy</i> , 2018 , 3, 301-309	62.3	157
221	Atomic force microscope cantilevers for combined thermomechanical data writing and reading. <i>Applied Physics Letters</i> , 2001 , 78, 1300-1302	3.4	150
220	High-speed, sub-15 nm feature size thermochemical nanolithography. <i>Nano Letters</i> , 2007 , 7, 1064-9	11.5	149
219	High power rechargeable batteries. <i>Current Opinion in Solid State and Materials Science</i> , 2012 , 16, 186-198	8.2	145
218	Holographic patterning of high-performance on-chip 3D lithium-ion microbatteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 6573-8	11.5	144
217	Using nanoscale thermocapillary flows to create arrays of purely semiconducting single-walled carbon nanotubes. <i>Nature Nanotechnology</i> , 2013 , 8, 347-55	28.7	144
216	Nanoscale deposition of solid inks via thermal dip pen nanolithography. <i>Applied Physics Letters</i> , 2004 , 85, 1589-1591	3.4	140

215	Hot embossing for micropatterned cell substrates. <i>Biomaterials</i> , 2004 , 25, 4767-75	15.6	134
214	Molecular confinement accelerates deformation of entangled polymers during squeeze flow. <i>Science</i> , 2008 , 322, 720-4	33.3	103
213	Nanoscale thermal analysis of an energetic material. <i>Nano Letters</i> , 2006 , 6, 2145-9	11.5	102
212	Nanopatterning reconfigurable magnetic landscapes via thermally assisted scanning probe lithography. <i>Nature Nanotechnology</i> , 2016 , 11, 545-551	28.7	97
211	Condensate droplet size distribution on lubricant-infused surfaces. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 109, 187-199	4.9	96
210	Polymer deformation and filling modes during microembossing. <i>Journal of Micromechanics and Microengineering</i> , 2004 , 14, 1625-1632	2	96
209	1,3-Dipolar Cycloaddition for the Generation of Nanostructured Semiconductors by Heated Probe Tips. <i>Macromolecules</i> , 2006 , 39, 6793-6795	5.5	92
208	Water droplet impact on elastic superhydrophobic surfaces. <i>Scientific Reports</i> , 2016 , 6, 30328	4.9	90
207	Nanoindentation of shape memory polymer networks. <i>Polymer</i> , 2007 , 48, 3213-3225	3.9	86
206	Surface functionalization of thin-film diamond for highly stable and selective biological interfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 983-8	11.5	80
205	Chemically isolated graphene nanoribbons reversibly formed in fluorographene using polymer nanowire masks. <i>Nano Letters</i> , 2011 , 11, 5461-4	11.5	74
204	Scanning probe microscopy. <i>Analytical Chemistry</i> , 2004 , 76, 3429-43	7.8	70
203	Wear-resistant diamond nanoprobe tips with integrated silicon heater for tip-based nanomanufacturing. <i>ACS Nano</i> , 2010 , 4, 3338-44	16.7	65
202	Nanometer-scale infrared spectroscopy of heterogeneous polymer nanostructures fabricated by tip-based nanofabrication. <i>ACS Nano</i> , 2012 , 6, 8015-21	16.7	64
201	Grain boundary doping strengthens nanocrystalline copper alloys. <i>Scripta Materialia</i> , 2012 , 67, 720-723	5.6	61
200	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2015 , 19, 127-165	3.7	60
199	Biophysical properties of human breast cancer cells measured using silicon MEMS resonators and atomic force microscopy. <i>Lab on A Chip</i> , 2015 , 15, 839-47	7.2	59
198	Direct writing of a conducting polymer with molecular-level control of physical dimensions and orientation. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6774-5	16.4	59

197	Single nanoparticle detection using photonic crystal enhanced microscopy. <i>Analyst, The</i> , 2014 , 139, 1007-1015	5.8	58
196	Thermochemical Nanolithography of Multifunctional Nanotemplates for Assembling Nano-Objects. <i>Advanced Functional Materials</i> , 2009 , 19, 3696-3702	15.6	54
195	High-sensitivity nanometer-scale infrared spectroscopy using a contact mode microcantilever with an internal resonator paddle. <i>Nanotechnology</i> , 2010 , 21, 185705	3.4	52
194	Comparison of thermal and piezoresistive sensing approaches for atomic force microscopy topography measurements. <i>Applied Physics Letters</i> , 2004 , 85, 2086-2088	3.4	52
193	Thermal conduction from microcantilever heaters in partial vacuum. <i>Journal of Applied Physics</i> , 2007 , 101, 014906	2.5	50
192	Thermal conduction between a heated microcantilever and a surrounding air environment. <i>Applied Thermal Engineering</i> , 2009 , 29, 1631-1641	5.8	49
191	HEATED ATOMIC FORCE MICROSCOPE CANTILEVERS AND THEIR APPLICATIONS. <i>Annual Review of Heat Transfer</i> , 2013 , 16, 287-326	2.7	49
190	Design analysis of heated atomic force microscope cantilevers for nanotopography measurements. <i>Journal of Micromechanics and Microengineering</i> , 2005 , 15, 2441-2448	2	48
189	Hydrothermal fabrication of three-dimensional secondary battery anodes. <i>Advanced Materials</i> , 2014 , 26, 7096-101	24	46
188	Local nanoscale heating modulates single-asperity friction. <i>Nano Letters</i> , 2010 , 10, 4640-5	11.5	46
187	Rapid thermal lysis of cells using silicon-diamond microcantilever heaters. <i>Lab on A Chip</i> , 2010 , 10, 1135-41	4.1	45
186	Conformal ZnO nanocomposite coatings on micro-patterned surfaces for superhydrophobicity. <i>Thin Solid Films</i> , 2010 , 518, 5426-5431	2.2	45
185	Microcantilever hotplates: Design, fabrication, and characterization. <i>Sensors and Actuators A: Physical</i> , 2007 , 136, 291-298	3.9	45
184	Shape recovery of nanoscale imprints in a thermoset shape memory polymer. <i>Applied Physics Letters</i> , 2005 , 86, 103108	3.4	45
183	Direct Measurement of Pyroelectric and Electrocaloric Effects in Thin Films. <i>Physical Review Applied</i> , 2017 , 7,	4.3	44
182	Direct observation of resistive heating at graphene wrinkles and grain boundaries. <i>Applied Physics Letters</i> , 2014 , 105, 143109	3.4	43
181	Cadherin-mediated cell-cell contact regulates keratinocyte differentiation. <i>Journal of Investigative Dermatology</i> , 2009 , 129, 564-72	4.3	43
180	Controlling nanoscale friction through the competition between capillary adsorption and thermally activated sliding. <i>ACS Nano</i> , 2012 , 6, 4305-13	16.7	41

179	Nanometer-scale flow of molten polyethylene from a heated atomic force microscope tip. <i>Nanotechnology</i> , 2012 , 23, 215301	3.4	41
178	Casting metal microstructures from a flexible and reusable mold. <i>Journal of Micromechanics and Microengineering</i> , 2009 , 19, 095016	2	40
177	Frequency-Dependent Electrical and Thermal Response of Heated Atomic Force Microscope Cantilevers. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 213-222	2.5	40
176	Three-Dimensional Integration of Graphene via Swelling, Shrinking, and Adaptation. <i>Nano Letters</i> , 2015 , 15, 4525-31	11.5	39
175	Hydrophobic and oleophobic re-entrant steel microstructures fabricated using micro electrical discharge machining. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 095020	2	39
174	Geometric microenvironment directs cell morphology on topographically patterned hydrogel substrates. <i>Acta Biomaterialia</i> , 2010 , 6, 3514-23	10.8	39
173	Modeling and Simulation of the Interface Temperature Between a Heated Silicon Tip and a Substrate. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2008 , 12, 98-115	3.7	39
172	Nanoscale characterisation and imaging of partially amorphous materials using local thermomechanical analysis and heated tip AFM. <i>Pharmaceutical Research</i> , 2007 , 24, 2048-54	4.5	39
171	Room-temperature chemical vapor deposition and mass detection on a heated atomic force microscope cantilever. <i>Applied Physics Letters</i> , 2006 , 88, 033107	3.4	39
170	Experimental Investigation on the Heat Transfer Between a Heated Microcantilever and a Substrate. <i>Journal of Heat Transfer</i> , 2008 , 130,	1.8	37
169	Laser-induced nanoscale thermocapillary flow for purification of aligned arrays of single-walled carbon nanotubes. <i>ACS Nano</i> , 2014 , 8, 12641-9	16.7	36
168	Nanoscale reduction of graphene fluoride via thermochemical nanolithography. <i>ACS Nano</i> , 2013 , 7, 6219-24	11.4	36
167	Maskless nanoscale writing of nanoparticle-polymer composites and nanoparticle assemblies using thermal nanoprobes. <i>Nano Letters</i> , 2010 , 10, 129-33	11.5	36
166	Topography imaging with a heated atomic force microscope cantilever in tapping mode. <i>Review of Scientific Instruments</i> , 2007 , 78, 043709	1.7	35
165	Atomic force microscope infrared spectroscopy on 15 nm scale polymer nanostructures. <i>Review of Scientific Instruments</i> , 2013 , 84, 023709	1.7	34
164	Lorentz force actuation of a heated atomic force microscope cantilever. <i>Nanotechnology</i> , 2012 , 23, 055709	3.9	34
163	Fabricating nanoscale chemical gradients with ThermoChemical NanoLithography. <i>Langmuir</i> , 2013 , 29, 8675-82	4	34
162	Nanopatterning materials using area selective atomic layer deposition in conjunction with thermochemical surface modification via heated AFM cantilever probe lithography. <i>Microelectronic Engineering</i> , 2008 , 85, 934-936	2.5	34

161	Monolayer MoS Nanoribbon Transistors Fabricated by Scanning Probe Lithography. <i>Nano Letters</i> , 2019 , 19, 2092-2098	11.5	33
160	Leave Your Phone at the Door 2016 ,		32
159	Parallelization of thermochemical nanolithography. <i>Nanoscale</i> , 2014 , 6, 1299-304	7.7	32
158	High-frequency thermal-electrical cycles for pyroelectric energy conversion. <i>Journal of Applied Physics</i> , 2014 , 116, 194509	2.5	30
157	Modeling Piezoresistive Microcantilever Sensor Response to Surface Stress for Biochemical Sensors. <i>IEEE Sensors Journal</i> , 2008 , 8, 1404-1410	4	30
156	Size Effect on the Thermal Conductivity of Thin Metallic Films Investigated by Scanning Joule Expansion Microscopy. <i>Journal of Heat Transfer</i> , 2008 , 130,	1.8	30
155	High Precision Electrohydrodynamic Printing of Polymer Onto Microcantilever Sensors. <i>IEEE Sensors Journal</i> , 2011 , 11, 2246-2253	4	29
154	High strength metallic wood from nanostructured nickel inverse opal materials. <i>Scientific Reports</i> , 2019 , 9, 719	4.9	28
153	Direct observation of nanometer-scale Joule and Peltier effects in phase change memory devices. <i>Applied Physics Letters</i> , 2013 , 102, 193503	3.4	28
152	Control of Nanoscale Environment to Improve Stability of Immobilized Proteins on Diamond Surfaces. <i>Advanced Functional Materials</i> , 2011 , 21, 1040-1050	15.6	28
151	The nanopatterning of a stimulus-responsive polymer by thermal dip-pen nanolithography. <i>Soft Matter</i> , 2008 , 4, 1844	3.6	28
150	Thermal Metrology of Silicon Microstructures Using Raman Spectroscopy. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2007 , 30, 200-208		28
149	Zinc oxide inverse opal enzymatic biosensor. <i>Applied Physics Letters</i> , 2013 , 102, 253103	3.4	27
148	Linear ripples and traveling circular ripples produced on polymers by thermal AFM probes. <i>Physical Review B</i> , 2009 , 79,	3.3	27
147	The impact of subcontinuum gas conduction on topography measurement sensitivity using heated atomic force microscope cantilevers. <i>Physics of Fluids</i> , 2005 , 17, 100615	4.4	27
146	High power density thermal energy storage using additively manufactured heat exchangers and phase change material. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 153, 119591	4.9	26
145	Droplet impact on vibrating superhydrophobic surfaces. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	26
144	Millimeter-scale liquid metal droplet thermal switch. <i>Applied Physics Letters</i> , 2018 , 112, 063505	3.4	25

143	Direct fabrication of arbitrary-shaped ferroelectric nanostructures on plastic, glass, and silicon substrates. <i>Advanced Materials</i> , 2011 , 23, 3786-90	24	25
142	Heat transfer enhancement of internal laminar flows using additively manufactured static mixers. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 137, 292-300	4.9	24
141	Microcantilever actuation via periodic internal heating. <i>Review of Scientific Instruments</i> , 2007 , 78, 126102	2.7	24
140	Quantitative thermal imaging of single-walled carbon nanotube devices by scanning Joule expansion microscopy. <i>ACS Nano</i> , 2012 , 6, 10267-75	16.7	23
139	Micromechanical properties of hydrogels measured with MEMS resonant sensors. <i>Biomedical Microdevices</i> , 2013 , 15, 311-9	3.7	23
138	Silicon microcantilever hotplates with high temperature uniformity. <i>Sensors and Actuators A: Physical</i> , 2009 , 152, 160-167	3.9	23
137	Temperature-dependence of ink transport during thermal dip-pen nanolithography. <i>Applied Physics Letters</i> , 2011 , 99, 193101	3.4	23
136	Electrical and thermal coupling to a single-wall carbon nanotube device using an electrothermal nanoprobe. <i>Nano Letters</i> , 2009 , 9, 1356-61	11.5	23
135	Differential Scanning Calorimeter Based on Suspended Membrane Single Crystal Silicon Microhotplate. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 1513-1525	2.5	23
134	Microwave assisted patterning of vertically aligned carbon nanotubes onto polymer substrates. <i>Journal of Vacuum Science & Technology B</i> , 2006 , 24, 1947		23
133	Spray-on omniphobic ZnO coatings. <i>RSC Advances</i> , 2015 , 5, 69243-69250	3.7	22
132	Near-field infrared absorption of plasmonic semiconductor microparticles studied using atomic force microscope infrared spectroscopy. <i>Applied Physics Letters</i> , 2013 , 102, 152110	3.4	22
131	Mechanical design for tailoring the resonance harmonics of an atomic force microscope cantilever during tip-surface contact. <i>Journal of Micromechanics and Microengineering</i> , 2009 , 19, 115008	2	22
130	Improved All-Silicon Microcantilever Heaters With Integrated Piezoresistive Sensing. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 432-445	2.5	22
129	Mechanical properties of hexagonal lattice structures fabricated using continuous liquid interface production additive manufacturing. <i>Additive Manufacturing</i> , 2019 , 25, 10-18	6.1	22
128	. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 220-229	1.7	22
127	Performance Modeling and Design of Ultra-High Power Microbatteries. <i>Journal of the Electrochemical Society</i> , 2017 , 164, E3122-E3131	3.9	21
126	Thermal transport in layer-by-layer assembled polycrystalline graphene films. <i>Npj 2D Materials and Applications</i> , 2019 , 3,	8.8	21

125	Integration of high capacity materials into interdigitated mesostructured electrodes for high energy and high power density primary microbatteries. <i>Journal of Power Sources</i> , 2016 , 315, 308-315	8.9	21
124	Improved atomic force microscope infrared spectroscopy for rapid nanometer-scale chemical identification. <i>Nanotechnology</i> , 2013 , 24, 444007	3.4	21
123	Spatial defects nanoengineering for bipolar conductivity in MoS. <i>Nature Communications</i> , 2020 , 11, 346317.4	17.4	21
122	A Compact Approach to On-Chip Interconnect Heat Conduction Modeling Using the Finite Element Method. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2008 , 130,	2	20
121	Thermomechanical formation and recovery of nanoindents in a shape memory polymer studied using a heated tip. <i>Scanning</i> , 2008 , 30, 197-202	1.6	20
120	Microcantilever hotplates with temperature-compensated piezoresistive strain sensors. <i>Sensors and Actuators A: Physical</i> , 2008 , 143, 181-190	3.9	20
119	Nanomaterial transfer using hot embossing for flexible electronic devices. <i>Applied Physics Letters</i> , 2006 , 88, 083112	3.4	20
118	Automated metrology and geometric analysis of additively manufactured lattice structures. <i>Additive Manufacturing</i> , 2019 , 28, 535-545	6.1	19
117	Micro-patterning of mammalian cells on suspended MEMS resonant sensors for long-term growth measurements. <i>Lab on A Chip</i> , 2014 , 14, 1401-4	7.2	19
116	Measuring physical properties of neuronal and glial cells with resonant microsensors. <i>Analytical Chemistry</i> , 2014 , 86, 4864-72	7.8	19
115	Fabrication of arbitrarily shaped silicon and silicon oxide nanostructures using tip-based nanofabrication. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013 , 31, 06FJ01	1.3	19
114	Parallel nanoimaging and nanolithography using a heated microcantilever array. <i>Nanotechnology</i> , 2014 , 25, 014001	3.4	18
113	Effect of irradiation damage on the shear strength of Cu/Nb interfaces. <i>Scripta Materialia</i> , 2014 , 90-91, 29-32	5.6	18
112	Nanofluidic channels of arbitrary shapes fabricated by tip-based nanofabrication. <i>Nanotechnology</i> , 2014 , 25, 455301	3.4	18
111	Direct writing and characterization of poly(p-phenylene vinylene) nanostructures. <i>Applied Physics Letters</i> , 2009 , 95, 233108	3.4	18
110	Dynamic thermomechanical response of bimaterial microcantilevers to periodic heating by infrared radiation. <i>Review of Scientific Instruments</i> , 2012 , 83, 015003	1.7	18
109	Temperature-dependent thermomechanical noise spectra of doped silicon microcantilevers. <i>Sensors and Actuators A: Physical</i> , 2008 , 145-146, 37-43	3.9	18
108	Characterization of mass and swelling of hydrogel microstructures using MEMS resonant mass sensor arrays. <i>Small</i> , 2012 , 8, 2555-62	11	17

107	Microstructured metal molds fabricated via investment casting. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 025025	2	17
106	Thermoelectric voltage at a nanometer-scale heated tip point contact. <i>Nanotechnology</i> , 2012 , 23, 035401	3.4	17
105	Variable temperature thin film indentation with a flat punch. <i>Review of Scientific Instruments</i> , 2008 , 79, 013904	1.7	17
104	Nanometer scale alignment of block-copolymer domains by means of a scanning probe tip. <i>Advanced Materials</i> , 2014 , 26, 2999-3002	24	16
103	Application of the thermal flash technique for low thermal diffusivity micro/nanofibers. <i>Review of Scientific Instruments</i> , 2009 , 80, 036103	1.7	16
102	Molding ceramic microstructures on flat and curved surfaces with and without embedded carbon nanotubes. <i>Journal of Micromechanics and Microengineering</i> , 2006 , 16, 2554-2563	2	16
101	Low temperature characterization of heated microcantilevers. <i>Journal of Applied Physics</i> , 2007 , 101, 094504	4	16
100	Multifunctional atomic force microscope cantilevers with Lorentz force actuation and self-heating capability. <i>Nanotechnology</i> , 2014 , 25, 395501	3.4	15
99	In situ creep measurements on micropillar samples during heavy ion irradiation. <i>Journal of Nuclear Materials</i> , 2014 , 451, 104-110	3.3	15
98	Self-heating in piezoresistive cantilevers. <i>Applied Physics Letters</i> , 2011 , 98, 223103	3.4	15
97	Nano-fabrication with a flexible array of nano-apertures. <i>Nanotechnology</i> , 2012 , 23, 175303	3.4	15
96	Routine femtogram-level chemical analyses using vibrational spectroscopy and self-cleaning scanning probe microscopy tips. <i>Analytical Chemistry</i> , 2008 , 80, 3221-8	7.8	15
95	Thermomechanical Formation of Nanoscale Polymer Indents With a Heated Silicon Tip. <i>Journal of Heat Transfer</i> , 2007 , 129, 1600-1604	1.8	15
94	An Integrated Liquid Metal Thermal Switch for Active Thermal Management of Electronics. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2019 , 9, 2341-2351	1.7	14
93	Micromechanical devices with controllable stiffness fabricated from regular 3D porous materials. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 105006	2	14
92	Contact potential measurement using a heated atomic force microscope tip. <i>Applied Physics Letters</i> , 2007 , 91, 143111	3.4	14
91	Shear stress characteristics of microtextured surfaces in gap-controlled hydrodynamic lubrication. <i>Tribology International</i> , 2015 , 82, 123-132	4.9	13
90	Local thermomechanical analysis of a microphase-separated thin lamellar PS-b-PEO film. <i>Langmuir</i> , 2012 , 28, 13503-11	4	13

89	Nanomanufacturing: Direct Fabrication of Arbitrary-Shaped Ferroelectric Nanostructures on Plastic, Glass, and Silicon Substrates (Adv. Mater. 33/2011). <i>Advanced Materials</i> , 2011 , 23, 3740-3740	24	13
88	Characterization of liquid and gaseous micro- and nanojets using microcantilever sensors. <i>Sensors and Actuators A: Physical</i> , 2007 , 134, 128-139	3.9	13
87	A microfabrication approach for making metallic mechanical metamaterials. <i>Materials and Design</i> , 2018 , 160, 147-168	8.1	13
86	A composite phase change material thermal buffer based on porous metal foam and low-melting-temperature metal alloy. <i>Applied Physics Letters</i> , 2020 , 116, 071901	3.4	12
85	Improved Nanotopography Sensing via Temperature Control of a Heated Atomic Force Microscope Cantilever. <i>IEEE Sensors Journal</i> , 2011 , 11, 2664-2670	4	12
84	Temperature-dependent phase transitions in zeptoliter volumes of a complex biological membrane. <i>Nanotechnology</i> , 2011 , 22, 055709	3.4	12
83	The mechanics of polymer swelling on microcantilever sensors. <i>Microsystem Technologies</i> , 2009 , 15, 333-340	3.4	12
82	High Power Density Pyroelectric Energy Conversion in Nanometer-Thick BaTiO ₃ Films. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2016 , 20, 137-146	3.7	12
81	High power density air-cooled microchannel heat exchanger. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 118, 1276-1283	4.9	12
80	Measuring individual carbon nanotubes and single graphene sheets using atomic force microscope infrared spectroscopy. <i>Nanotechnology</i> , 2017 , 28, 355707	3.4	11
79	Heterogeneous nanometer-scale Joule and Peltier effects in sub-25 nm thin phase change memory devices. <i>Journal of Applied Physics</i> , 2014 , 116, 124508	2.5	11
78	Ultrananocrystalline diamond tip integrated onto a heated atomic force microscope cantilever. <i>Nanotechnology</i> , 2012 , 23, 495302	3.4	11
77	Microthermogravimetry using a microcantilever hot plate with integrated temperature-compensated piezoresistive strain sensors. <i>Review of Scientific Instruments</i> , 2008 , 79, 054901	1.7	11
76	A semianalytical solution for the 3 σ method including the effect of heater thermal conduction. <i>Journal of Applied Physics</i> , 2008 , 103, 113517	2.5	11
75	Emergency ventilator for COVID-19. <i>PLoS ONE</i> , 2020 , 15, e0244963	3.7	11
74	Phase Change Material Heat Sink for Transient Cooling of High-Power Devices. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 170, 121033	4.9	11
73	High power density two-phase cooling in microchannel heat exchangers. <i>Applied Thermal Engineering</i> , 2019 , 148, 1271-1277	5.8	11
72	Bimaterial microcantilevers with black silicon nanocone arrays. <i>Sensors and Actuators A: Physical</i> , 2013 , 199, 143-148	3.9	10

71	Heated atomic force microscope cantilever with high resistivity for improved temperature sensitivity. <i>Sensors and Actuators A: Physical</i> , 2013 , 201, 141-147	3.9	10
70	Silicon nano-mechanical resonators fabricated by using tip-based nanofabrication. <i>Nanotechnology</i> , 2014 , 25, 275301	3.4	10
69	Droplet Impingement and Vapor Layer Formation on Hot Hydrophobic Surfaces. <i>Journal of Heat Transfer</i> , 2014 , 136,	1.8	10
68	Liquid Operation of Silicon Microcantilever Heaters. <i>IEEE Sensors Journal</i> , 2008 , 8, 1805-1806	4	10
67	Ultra-power-dense heat exchanger development through genetic algorithm design and additive manufacturing. <i>Joule</i> , 2021 ,	27.8	10
66	Impact of air and water vapor environments on the hydrophobicity of surfaces. <i>Journal of Colloid and Interface Science</i> , 2015 , 453, 177-185	9.3	9
65	Tip-Based Nanofabrication of Arbitrary Shapes of Graphene Nanoribbons for Device Applications. <i>RSC Advances</i> , 2015 , 5, 37006-37012	3.7	9
64	Tailoring Surface Properties via Functionalized Hydrofluorinated Graphene Compounds. <i>Advanced Materials</i> , 2019 , 31, e1903424	24	9
63	Heated atomic force cantilever closed loop temperature control and application to high speed nanotopography imaging. <i>Sensors and Actuators A: Physical</i> , 2013 , 192, 27-33	3.9	9
62	Direct measurements of irradiation-induced creep in micropillars of amorphous Cu ₅₆ Ti ₃₈ Ag ₆ , Zr ₅₂ Ni ₄₈ , Si, and SiO ₂ . <i>Journal of Applied Physics</i> , 2015 , 117, 024310	2.5	9
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