

Manish K Tiwari

List of Publications by Year in descending order

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92
papers

4,611
citations

136950

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102487

66
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99
all docs

99
docs citations

99
times ranked

4620
citing authors

#	ARTICLE	IF	CITATIONS
1	Copper nanowire embedded hypromellose: An antibacterial nanocomposite film. Journal of Colloid and Interface Science, 2022, 608, 30-39.	9.4	11
2	A route to engineered high aspect-ratio silicon nanostructures through regenerative secondary mask lithography. Nanoscale, 2022, 14, 1847-1854.	5.6	7
3	3D Printed Flexible Photoplethysmography Sensor Array for Tissue Oximetry. , 2022, , .		0
4	3D direct-write printing of water soluble micromoulds for high-resolution rapid prototyping. Additive Manufacturing, 2022, 58, 103019.	3.0	4
5	Droplet Dynamics on a Wettability Patterned Surface during Spray Impact. Processes, 2021, 9, 555.	2.8	7
6	Hybrid integral transform analysis of supercooled droplets solidification. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200874.	2.1	3
7	Transparent and Robust Amphiphobic Surfaces Exploiting Nanohierarchical Surface-grown Metal-Organic Frameworks. Nano Letters, 2021, 21, 3480-3486.	9.1	20
8	Delayed Lubricant Depletion of Slippery Liquid Infused Porous Surfaces Using Precision Nanostructures. Langmuir, 2021, 37, 10071-10078.	3.5	31
9	An improved lumped model for freezing of a freely suspended supercooled water droplet in air stream. Journal of Engineering Mathematics, 2021, 130, 1.	1.2	4
10	Pre-impact dynamics of a droplet impinging on a deformable surface. Physics of Fluids, 2021, 33, .	4.0	8
11	Autonomous transport and splitting of a droplet on an open surface. Physical Review Fluids, 2021, 6, .	2.5	13
12	Bioinspired Multifunctional Glass Surfaces through Regenerative Secondary Mask Lithography. Advanced Materials, 2021, 33, e2102175.	21.0	13
13	Design, Static and Performance Analysis of a Parallel Robot for Head Stabilisation in Vitreoretinal Surgery. Mechanisms and Machine Science, 2021, , 169-179.	0.5	0
14	Single Sensor Interventional All-Optical Ultrasound Imaging: Beam Characteristics and Bandwidth Performance. , 2021, , .		2
15	Nanotextured Aluminum-Based Surfaces with Icephobic Properties. Heat Transfer Engineering, 2020, 41, 1663-1672.	1.9	10
16	Innovative Metallic Microfluidic Device for Intensified Biodiesel Production. Industrial & Engineering Chemistry Research, 2020, 59, 389-398.	3.7	14
17	Re-usable self-poled piezoelectric/piezocatalytic films with exceptional energy harvesting and water remediation capability. Nano Energy, 2020, 78, 105339.	16.0	90
18	Effect of Particle Specific Surface Area on the Rheology of Non-Brownian Silica Suspensions. Materials, 2020, 13, 4628.	2.9	10

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19	Spacer-Defined Intrinsic Multiple Patterning. ACS Nano, 2020, 14, 12091-12100.	14.6	10
20	Fluorine-Free Transparent Superhydrophobic Nanocomposite Coatings from Mesoporous Silica. Langmuir, 2020, 36, 13426-13438.	3.5	31
21	Mixing in flows past confined microfluidic cylinders: Effects of pin and fluid interface offsetting. Chemical Engineering Journal, 2020, 397, 125358.	12.7	13
22	On the shear thinning of non-Brownian suspensions: Friction or adhesion?. Journal of Non-Newtonian Fluid Mechanics, 2020, 281, 104298.	2.4	28
23	Compression molding processed superhydrophobic CB/CeO ₂ /PVDF/CF nanocomposites with highly robustness, reusability and multifunction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 590, 124533.	4.7	13
24	Suspension rheology of adhesive particles at high shear-rates. Physical Review Fluids, 2020, 5, .	2.5	4
25	Probing vortex-shedding at high frequencies in flows past confined microfluidic cylinders using high-speed microscale particle image velocimetry. Physics of Fluids, 2019, 31, .	4.0	9
26	Bio-compatible Piezoresistive Pressure Sensing Skin Sleeve for Millimetre-Scale Flexible Robots: Design, Manufacturing and Pitfalls. , 2019, 2019, 1657-1661.		2
27	On the Thermal Performance of a Microparallel Channels Heat Exchanger. Journal of Thermal Science and Engineering Applications, 2019, 11, .	1.5	3
28	Micron resolution, high-fidelity three-dimensional vascular optical imaging phantoms. Journal of Biomedical Optics, 2019, 24, 1.	2.6	7
29	Drops, Jets and High-Resolution 3D Printing: Fundamentals and Applications. Energy, Environment, and Sustainability, 2018, , 123-162.	1.0	3
30	All-organic superhydrophobic coatings with mechanochemical robustness and liquid impalement resistance. Nature Materials, 2018, 17, 355-360.	27.5	563
31	Super-durable, non-fluorinated superhydrophobic free-standing items. Journal of Materials Chemistry A, 2018, 6, 357-362.	10.3	75
32	Thermal Transport in Micro- and Nanoscale Systems. , 2018, , 277-327.		2
33	NANOTEXTURED SURFACES FOR ANTI-ICING. , 2018, , .		0
34	VORTEX INDUCED TRANSPORT PHENOMENA IN FLOWS PAST MICROPINS. , 2018, , .		0
35	Table Salt as a Template to Prepare Reusable Porous PVDFâ€MWCNT Foam for Separation of Immiscible Oils/Organic Solvents and Corrosive Aqueous Solutions. Advanced Functional Materials, 2017, 27, 1702926.	14.9	160
36	Dynamics of magnetic modulation of ferrofluid droplets for digital microfluidic applications. Journal of Magnetism and Magnetic Materials, 2017, 421, 165-176.	2.3	21

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37	High-resolution 3D printing for healthcare underpinned by small-scale fluidics. , 2017, , 167-206.		18
38	Thermal Transport in Micro- and Nanoscale Systems. , 2017, , 1-51.		1
39	A simplified approach to hotspot alleviation in microprocessors. Applied Thermal Engineering, 2016, 93, 1314-1323.	6.0	20
40	Analysis of conjugated heat transfer in micro-heat exchangers via integral transforms and non-intrusive optical techniques. International Journal of Numerical Methods for Heat and Fluid Flow, 2015, 25, 1444-1462.	2.8	16
41	A high-efficiency hybrid high-concentration photovoltaic system. International Journal of Heat and Mass Transfer, 2015, 89, 514-521.	4.8	48
42	A novel method of energy efficient hotspot-targeted embedded liquid cooling for electronics: An experimental study. International Journal of Heat and Mass Transfer, 2015, 88, 684-694.	4.8	91
43	Site-specific deposition of single gold nanoparticles by individual growth in electrohydrodynamically-printed attoliter droplet reactors. Nanoscale, 2015, 7, 9510-9519.	5.6	20
44	Significant thermal conductivity reduction of silicon nanowire forests through discrete surface doping of germanium. Applied Physics Letters, 2015, 106, .	3.3	34
45	Energy efficient hotspot-targeted embedded liquid cooling of electronics. Applied Energy, 2015, 138, 414-422.	10.1	157
46	Multifunctional Superhydrophobic Polymer/Carbon Nanocomposites: Graphene, Carbon Nanotubes, or Carbon Black?. ACS Applied Materials & Interfaces, 2014, 6, 8859-8867.	8.0	116
47	Computational Modeling of Hot-Spot Identification and Control in 3-D Stacked Chips with Integrated Cooling. Numerical Heat Transfer; Part A: Applications, 2014, 65, 201-215.	2.1	12
48	Rational nanostructuring of surfaces for extraordinary icephobicity. Nanoscale, 2014, 6, 4874-4881.	5.6	203
49	Hierarchically nanotextured surfaces maintaining superhydrophobicity under severely adverse conditions. Nanoscale, 2014, 6, 8710-8719.	5.6	72
50	On the Nanoengineering of Superhydrophobic and Impalement Resistant Surface Textures below the Freezing Temperature. Nano Letters, 2014, 14, 172-182.	9.1	276
51	Dropwise condensation on superhydrophobic nanostructured surfaces: literature review and experimental analysis. Journal of Physics: Conference Series, 2014, 501, 012028.	0.4	19
52	Supercooled Water Drops Impacting Superhydrophobic Textures. Langmuir, 2014, 30, 10855-10861.	3.5	157
53	Unraveling wetting transition through surface textures with X-rays: Liquid meniscus penetration phenomena. Scientific Reports, 2014, 4, 4055.	3.3	56
54	Microvortex-enhanced heat transfer in 3D-integrated liquid cooling of electronic chip stacks. International Journal of Heat and Mass Transfer, 2013, 65, 33-43.	4.8	62

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55	A Novel 3D Integrated Platform for the High-Resolution Study of Cell Migration Plasticity. <i>Macromolecular Bioscience</i> , 2013, 13, 973-983.	4.1	25
56	Thermofluidics and energetics of a manifold microchannel heat sink for electronics with recovered hot water as working fluid. <i>International Journal of Heat and Mass Transfer</i> , 2013, 58, 135-151.	4.8	64
57	Vortex shedding from confined micropin arrays. <i>Microfluidics and Nanofluidics</i> , 2013, 15, 231-242.	2.2	19
58	Hybrid porous media and fluid domain modeling strategy to optimize a novel staggered fin heat sink design. , 2013, , .		4
59	Flow Condensation on Copper-Based Nanotextured Superhydrophobic Surfaces. <i>Langmuir</i> , 2013, 29, 840-848.	3.5	143
60	Computational modeling of vortex shedding in water cooling of 3D integrated electronics. <i>International Journal of Heat and Fluid Flow</i> , 2013, 44, 745-755.	2.4	27
61	Analysis of failure mechanism of bitumen films. <i>Fuel</i> , 2013, 106, 437-447.	6.4	32
62	Advanced liquid cooling in HCPVT systems to achieve higher energy efficiencies. , 2013, , .		5
63	Hot Water Cooled Electronics for High Exergetic Utility. , 2012, , .		0
64	Hot water cooled electronics: Exergy analysis and waste heat reuse feasibility. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 6391-6399.	4.8	68
65	Surface tension confined (STC) tracks for capillary-driven transport of low surface tension liquids. <i>Lab on A Chip</i> , 2012, 12, 5237.	6.0	44
66	Waste heat recovery in supercomputers and 3D integrated liquid cooled electronics. , 2012, , .		17
67	Frost halos from supercooled water droplets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 16073-16078.	7.1	143
68	Aquasar: A hot water cooled data center with direct energy reuse. <i>Energy</i> , 2012, 43, 237-245.	8.8	172
69	Mechanism of supercooled droplet freezing on surfaces. <i>Nature Communications</i> , 2012, 3, 615.	12.8	527
70	Optimal thermal operation of liquid-cooled electronic chips. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 1957-1969.	4.8	72
71	On the significance of developing boundary layers in integrated water cooled 3D chip stacks. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 5222-5232.	4.8	17
72	High strain sustaining, nitrile rubber based, large-area, superhydrophobic, nanostructured composite coatings. <i>Composites Part A: Applied Science and Manufacturing</i> , 2011, 42, 979-985.	7.6	33

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73	Novel Fluoropolymer Blends for the Fabrication of Sprayable Multifunctional Superhydrophobic Nanostructured Composites. Industrial & Engineering Chemistry Research, 2011, 50, 11117-11123.	3.7	49
74	Experimental investigation into vortex structure and pressure drop across microcavities in 3D integrated electronics. Experiments in Fluids, 2011, 51, 731-741.	2.4	51
75	On the Principles of Printing Sub-micrometer 3D Structures from Dielectric-Liquid-Based Colloids. Advanced Functional Materials, 2011, 21, 388-395.	14.9	30
76	Fabricating devices with dielectrophoretically assembled, suspended single walled carbon nanotubes for improved nanoelectronic device characterization. Microelectronic Engineering, 2011, 88, 2740-2743.	2.4	7
77	Superhydrophobic and conductive carbon nanofiber/PTFE composite coatings for EMI shielding. Journal of Colloid and Interface Science, 2011, 353, 311-315.	9.4	115
78	3D Integrated Water Cooling of a Composite Multilayer Stack of Chips. , 2010, , .		4
79	Millimeter-wave on-chip solenoid inductor by on-demand three-dimensional printing of colloidal nanoparticles. Applied Physics Letters, 2010, 97, 243109.	3.3	6
80	3D Integrated Water Cooling of a Composite Multilayer Stack of Chips. Journal of Heat Transfer, 2010, 132, .	2.1	54
81	Highly Liquid-Repellent, Large-Area, Nanostructured Poly(vinylidene fluoride)/Poly(ethyl Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 2010, 2, 1114-1119.	8.0	88
82	HOT WATER COOLED HEAT SINKS FOR EFFICIENT DATA CENTER COOLING: TOWARDS ELECTRONIC COOLING WITH HIGH EXERGETIC UTILITY. Frontiers in Heat and Mass Transfer, 2010, 1, .	0.2	20
83	Poly(vinylidene fluoride) and Poly(ethyl 2â€cyanoacrylate) Blends through Controlled Polymerization of Ethyl 2â€Cyanoacrylates. Macromolecular Materials and Engineering, 2009, 294, 775-780.	3.6	11
84	Elongational and shear rheology of carbon nanotube suspensions. Rheologica Acta, 2009, 48, 597-609.	2.4	54
85	Electrospun Nanocomposites as Flexible Sensors. , 2008, , .		2
86	Biocompatible poly(vinylidene fluoride)/cyanoacrylate composite coatings with tunable hydrophobicity and bonding strength. Applied Physics Letters, 2008, 93, 173902.	3.3	48
87	Electrospun fibrous nanocomposites as permeable, flexible strain sensors. Journal of Applied Physics, 2008, 103, .	2.5	45
88	Evaluation and Testing of Organometallic Precursor for Copper Direct-Write. Materials Research Society Symposia Proceedings, 2007, 1002, 1.	0.1	1
89	Metal Line Interconnects Produced by Means of Printable Copper Precursor Solutions. , 2006, , .		0
90	Parameter optimization through performance analysis of model based control of a batch heat treatment furnace with low NOx radiant tube burner. Energy Conversion and Management, 2005, 46, 2114-2133.	9.2	5

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91	Process modeling for control of a batch heat treatment furnace with low NO _x radiant tube burner. Energy Conversion and Management, 2005, 46, 2093-2113.	9.2	17
92	NUMERICAL SIMULATION OF OPTIMAL MULTIPLE-INPUT, MULTIPLE-OUTPUT CONTROL OF JET IMPINGEMENT COOLING OF A GLASS PLATE. Numerical Heat Transfer; Part A: Applications, 2004, 46, 401-424.	2.1	8