Youngsuk Nam

List of Publications by Year
in descending order

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61 papers	4,234 citations	186209 28 h-index	128225 60 g-index
61 all docs	61 docs citations	61 times ranked	3937 citing authors

#	Article	IF	Citations
1	Jumping-Droplet-Enhanced Condensation on Scalable Superhydrophobic Nanostructured Surfaces. Nano Letters, 2013, 13, 179-187.	4.5	950
2	A nanophotonic solar thermophotovoltaic device. Nature Nanotechnology, 2014, 9, 126-130.	15.6	704
3	Condensation on Superhydrophobic Copper Oxide Nanostructures. Journal of Heat Transfer, 2013, 135, .	1.2	187
4	Solar thermophotovoltaic energy conversion systems with two-dimensional tantalum photonic crystal absorbers and emitters. Solar Energy Materials and Solar Cells, 2014, 122, 287-296.	3.0	158
5	Energy and hydrodynamic analyses of coalescence-induced jumping droplets. Applied Physics Letters, 2013, 103, .	1.5	155
6	The effects of surface wettability on the fog and dew moisture harvesting performance on tubular surfaces. Scientific Reports, 2016, 6, 24276.	1.6	155
7	Fabrication and Characterization of the Capillary Performance of Superhydrophilic Cu Micropost Arrays. Journal of Microelectromechanical Systems, 2010, 19, 581-588.	1.7	132
8	A comparative study of the morphology and wetting characteristics of micro/nanostructured Cu surfaces for phase change heat transfer applications. Journal of Adhesion Science and Technology, 2013, 27, 2163-2176.	1.4	126
9	Experimental and Numerical Study of Single Bubble Dynamics on a Hydrophobic Surface. Journal of Heat Transfer, 2009, 131, .	1.2	108
10	Single bubble dynamics on a superhydrophilic surface with artificial nucleation sites. International Journal of Heat and Mass Transfer, 2011, 54, 1572-1577.	2.5	105
11	Electron blocking layer-based interfacial design for highly-enhanced triboelectric nanogenerators. Nano Energy, 2018, 50, 9-15.	8.2	105
12	Two types of Cassie-to-Wenzel wetting transitions on superhydrophobic surfaces during drop impact. Soft Matter, 2015, 11, 4592-4599.	1.2	88
13	Characterization and Modeling of the Heat Transfer Performance of Nanostructured Cu Micropost Wicks. Journal of Heat Transfer, 2011, 133, .	1.2	86
14	Drop Impact Dynamics on Oil-Infused Nanostructured Surfaces. Langmuir, 2014, 30, 8400-8407.	1.6	81
15	Water Penetration through a Superhydrophobic Mesh During a Drop Impact. Physical Review Letters, 2017, 118, 014501.	2.9	79
16	Influence of Geometric Patterns of Microstructured Superhydrophobic Surfaces on Water-Harvesting Performance via Dewing. Langmuir, 2014, 30, 15468-15476.	1.6	72
17	Bubble nucleation on hydrophobic islands provides evidence to anomalously high contact angles of nanobubbles. Applied Physics Letters, 2008, 93, .	1.5	69
18	Droplet coalescence on water repellant surfaces. Soft Matter, 2015, 11, 154-160.	1.2	57

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19	Continuous scavenging of broadband vibrations via omnipotent tandem triboelectric nanogenerators with cascade impact structure. Scientific Reports, 2019, 9, 8223.	1.6	47
20	Condensation behaviors and resulting heat transfer performance of nano-engineered copper surfaces. International Journal of Heat and Mass Transfer, 2016, 93, 286-292.	2.5	45
21	Gallium-based liquid metal alloy incorporating oxide-free copper nanoparticle clusters for high-performance thermal interface materials. International Journal of Heat and Mass Transfer, 2021, 170, 121012.	2.5	44
22	Absorption mechanism and performance characterization of CuO nanostructured absorbers. Solar Energy Materials and Solar Cells, 2017, 169, 270-279.	3.0	42
23	Effect of geometrical parameters on rebound of impacting droplets on leaky superhydrophobic meshes. Soft Matter, 2018, 14, 1571-1580.	1.2	40
24	Enhanced heat transfer using metal foam liquid supply layers for micro heat spreaders. International Journal of Heat and Mass Transfer, 2017, 108, 2338-2345.	2.5	37
25	Passive Anti-Flooding Superhydrophobic Surfaces. ACS Applied Materials & Interfaces, 2020, 12, 4068-4080.	4.0	37
26	Performance Analysis of Gravity-Driven Oilâ€“Water Separation Using Membranes with Special Wettability. Langmuir, 2019, 35, 7769-7782.	1.6	33
27	Contact time on curved superhydrophobic surfaces. Physical Review E, 2020, 101, 043108.	0.8	32
28	Corrosion resistance of water repellent aluminum surfaces with various wetting morphologies. Applied Surface Science, 2019, 467-468, 1046-1052.	3.1	29
29	A radioisotope thermophotovoltaic converter with nanophotonic emitters and filters. International Journal of Heat and Mass Transfer, 2017, 108, 1115-1125.	2.5	28
30	Brushed lubricant-impregnated surfaces (BLIS) for long-lasting high condensation heat transfer. Scientific Reports, 2020, 10, 2959.	1.6	27
31	Focusing of phase change microparticles for local heat transfer enhancement in laminar flows. International Journal of Heat and Mass Transfer, 2013, 56, 380-389.	2.5	26
32	Role of spectral non-idealities in the design of solar thermophotovoltaics. Optics Express, 2014, 22, A1604.	1.7	26
33	Single-Sided Digital Microfluidic (SDMF) Devices for Effective Coolant Delivery and Enhanced Two-Phase Cooling. Micromachines, 2017, 8, 3.	1.4	26
34	Mesoporous Highly-Deformable Composite Polymer for a Gapless Triboelectric Nanogenerator via a One-Step Metal Oxidation Process. Micromachines, 2018, 9, 656.	1.4	25
35	The study on the critical heat flux and pool boiling heat transfer coefficient of binary nanofluids (H2O/LiBrÂ+ÂAl2O3). International Journal of Refrigeration, 2013, 36, 1056-1061.	1.8	24
36	Condensation Heat-Transfer Performance of Thermally Stable Superhydrophobic Cerium-Oxide Surfaces. ACS Applied Materials & Interfaces, 2018, 10, 31765-31776.	4.0	24

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37	Dynamic heat transfer analysis of condensed droplets growing and coalescing on water repellent surfaces. International Journal of Heat and Mass Transfer, 2017, 114, 934-943.	2.5	21
38	Influence of lubricant-mediated droplet coalescence on frosting delay on lubricant impregnated surfaces. International Journal of Heat and Mass Transfer, 2019, 128, 217-228.	2.5	19
39	Characteristics analysis of the developed surface modification technologies to improve the anti-corrosion performances for offshore equipments. Journal of Mechanical Science and Technology, 2019, 33, 3971-3979.	0.7	15
40	Superhydrophilic catenoidal aluminum micropost evaporator wicks. International Journal of Heat and Mass Transfer, 2020, 158, 120011.	2.5	15
41	Heat transfer and capillary performance of dual-height superhydrophilic micropost wicks. International Journal of Heat and Mass Transfer, 2014, 73, 438-444.	2.5	14
42	Liquid cooling module incorporating a metal foam and fin hybrid structure for high power insulated gate bipolar transistors (IGBTs). Applied Thermal Engineering, 2020, 173, 115230.	3.0	14
43	A bio-inspired, low pressure drop liquid cooling system for high-power IGBT modules for EV/HEV applications. International Journal of Thermal Sciences, 2021, 161, 106708.	2.6	14
44	Anisotropic drop spreading on superhydrophobic grates during drop impact. Soft Matter, 2018, 14, 3760-3767.	1.2	12
45	Optical Tunneling Mediated Sub-Skin-Depth High Emissivity Tungsten Radiators. Nano Letters, 2019, 19, 7093-7099.	4.5	12
46	Water penetration dynamics through a Janus mesh during drop impact. Soft Matter, 2020, 16, 6072-6081.	1.2	11
47	High-efficiency power generation in hyper-saline environment using conventional nanoporous membrane. Electrochimica Acta, 2019, 319, 366-374.	2.6	10
48	A superhydrophilic nitinol shape memory alloy with enhanced anti-biofouling and anti-corrosion properties. Biofouling, 2016, 32, 535-545.	0.8	9
49	Pt/Alumina Hyperbolic Metafilms with Highâ€Temperature Stability, Wide Wavelength Tunability, and Omnidirectional Absorption. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800287.	0.8	9
50	Modeling and optimization of hydrophobic surfaces for a two-phase closed thermosyphon. International Journal of Heat and Mass Transfer, 2021, 165, 120680.	2.5	7
51	Effects and limitations of superhydrophobic surfaces on the heat transfer performance of a two-phase closed thermosyphon. International Journal of Heat and Mass Transfer, 2021, 176, 121446.	2.5	7
52	Switching of heating and cooling modes using thermal radiation films. Current Applied Physics, 2020, 20, 1073-1079.	1.1	6
53	Enhancing heat transfer performance of a two-phase closed thermosyphon using a polymer-coated hydrophobic condenser. Applied Thermal Engineering, 2021, 196, 117350.	3.0	6
54	Dropwise condensation of acetone and ethanol for a high-performance lubricant-impregnated thermosyphon. International Journal of Heat and Mass Transfer, 2021, 181, 121871.	2.5	6

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55	Endowing antifouling properties on metal substrata by creating an artificial barrier layer based on scalable metal oxide nanostructures. Biofouling, 2020, 36, 766-782.	0.8	4
56	Organic/inorganic hybrid cerium oxide-based superhydrophobic surface with enhanced weather resistance and self-recovery. Progress in Organic Coatings, 2022, 170, 106998.	1.9	4
57	High-Temperature Carbonized Ceria Thermophotovoltaic Emitter beyond Tungsten. ACS Applied Materials & Interfaces, 2021, 13, 42724-42731.	4.0	3
58	Influence of early drop bouncing on heat transfer during drop impact. International Communications in Heat and Mass Transfer, 2022, 137, 106235.	2.9	3
59	Reducing surface fouling against emulsified oils using CuO nanostructured surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 612, 125991.	2.3	2
60	Scalable superhydrophobic flexible plasmonic poly(tetrafluoroethylene-co-perfluorovinyl ether) films via ion-beam irradiation and metal deposition. Materials Express, 2017, 7, 319-323.	0.2	1
61	Compact Liquid Cooling Module Incorporating Metal Foam and Fin Hybrid Structures for High Power IGBTs. , 2019, , .		1