Andrew D Sommers

List of Publications by Year
in descending order

26	836	759233 12	552781 26
papers	citations	h-index	g-index

26	26	26	872
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Review of Metal Foam and Metal Matrix Composites for Heat Exchangers and Heat Sinks. Heat Transfer Engineering, 2012, 33, 991-1009.	1.9	199
2	Creating micro-scale surface topology to achieve anisotropic wettability on an aluminum surface. Journal of Micromechanics and Microengineering, 2006, 16, 1571-1578.	2.6	128
3	Experimental investigation into the convective heat transfer and system-level effects of Al2O3-propanol nanofluid. Journal of Nanoparticle Research, 2010, 12, 1003-1014.	1.9	102
4	Managing water on heat transfer surfaces: A critical review of techniques to modify surface wettability for applications with condensation or evaporation. Applied Energy, 2018, 222, 967-992.	10.1	93
5	Densification of frost on hydrophilic and hydrophobic substrates â€“ Examining the effect of surface wettability. Experimental Thermal and Fluid Science, 2016, 75, 25-34.	2.7	54
6	Using micro-structural surface features to enhance the convective flow boiling heat transfer of R-134a on aluminum. International Journal of Heat and Mass Transfer, 2013, 64, 1053-1063.	4.8	43
7	The role of surface wettability on natural convection frosting: Frost growth data and a new correlation for hydrophilic and hydrophobic surfaces. International Journal of Heat and Mass Transfer, 2018, 122, 78-88.	4.8	41
8	A semi-empirical correlation for predicting the frost density on hydrophilic and hydrophobic substrates. International Journal of Refrigeration, 2017, 74, 313-323.	3.4	25
9	A study of frost build-up on hydrophilic and hydrophobic surfaces under forced convection conditions. Experimental Thermal and Fluid Science, 2019, 100, 76-88.	2.7	22
10	A semi-empirical model for predicting frost accretion on hydrophilic and hydrophobic surfaces. International Journal of Refrigeration, 2018, 87, 164-171.	3.4	19
11	Defrosting performance on hydrophilic, hydrophobic, and micro-patterned gradient heat transfer surfaces. Science and Technology for the Built Environment, 2017, 23, 946-959.	1.7	13
12	Survey of Micro/Nanofabricated Chemical, Topographical, and Compound Passive Wetting Gradient Surfaces. Langmuir, 2022, 38, 605-619.	3.5	13
13	Investigating the thermal-hydraulic performance of new refrigerant mixtures through numerical simulation of minichannel and microchannel evaporators. Applied Thermal Engineering, 2013, 50, 1291-1298.	6.0	10
14	Development of a Coating-Less Aluminum Superhydrophobic Gradient for Spontaneous Water Droplet Motion Using One-Step Laser-Ablation. Langmuir, 2022, 38, 1954-1965.	3.5	10
15	Rapid Molecular Imaging Using Attenuated Total Internal Reflection Planar Array Infrared Spectroscopy for the Analysis of Counterfeit Pharmaceutical Tablets. Applied Spectroscopy, 2009, 63, 979-991.	2.2	9
16	Water Condensation and Droplet Shedding Behavior on Silica-Nanospring-Coated Tubes. ACS Applied Materials & Interfaces, 2020, 12, 17046-17054.	8.0	9
17	Characterization of Methyl-Functionalized Silica Nanosprings for Superhydrophobic and Defrosting Coatings. ACS Applied Materials & Interfaces, 2019, 11, 4607-4615.	8.0	8
18	Self-propelled water droplet movement on a laser-etched radial gradient copper surface. Applied Thermal Engineering, 2020, 173, 115226.	6.0	8

#	Article	IF	Citations
19	Time scaling of frost accretion and the square-root-of-time rule. International Communications in Heat and Mass Transfer, 2019, 108, 104281.	5.6	7
20	Study of Micro- and Nanopatterned Aluminum Surfaces Using Different Microfabrication Processes for Water Management. Langmuir, 2022, 38, 1386-1397.	3.5	7
21	Variations of the Static Contact Angle of Ferrofluid Droplets on Solid Horizontal Surfaces in External Uniform Magnetic Fields. Langmuir, 2020, 36, 6314-6322.	3.5	5
22	Evaporator Frosting in Refrigerating Appliances: Fundamentals and Applications. Energies, 2021, 14, 5991.	3.1	5
23	Using patterned surface wettability to enhance air-side heat transfer through frozen water droplet vortex generators-part I: Experimental study. International Journal of Refrigeration, 2021, 131, 332-340.	3.4	2
24	Micro-fabricated aluminium surfaces for reduced ice adhesion. Experimental Thermal and Fluid Science, 2022, 136, 110646.	2.7	2
25	Using Patterned Surface Wettability to Enhance Air-Side Heat Transfer Through Frozen Water Droplet Vortex Generators â€“ Part II: CFD Simulation Results. International Journal of Refrigeration, 2021, 131, 737-737.	3.4	1
26	Surface wetting on micromilled and laser-etched aluminum with ion-beam postprocessing. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, .	1.2	1