Thomas M Schutzius

List of Publications by Year
in descending order

44 papers	3,084 citations	172457 29 h-index	254184 43 g-index
44 all docs	44 docs citations	44 times ranked	3354 citing authors

#	Article	IF	Citations
1	Spontaneous droplet trampolining on rigid superhydrophobic surfaces. Nature, 2015, 527, 82-85.	27.8	349
2	Wettability patterning for high-rate, pumpless fluid transport on open, non-planar microfluidic platforms. Lab on A Chip, 2014, 14, 1538-1550.	6.0	300
3	Physics of Icing and Rational Design of Surfaces with Extraordinary Icephobicity. Langmuir, 2015, 31, 4807-4821.	3.5	292
4	Surface engineering for phase change heat transfer: A review. MRS Energy & Sustainability, 2014, 1, 1.	3.0	288
5	On the Mechanism of Hydrophilicity of Graphene. Nano Letters, 2016, 16, 4447-4453.	9.1	148
6	Inkjet patterned superhydrophobic paper for open-air surface microfluidic devices. Lab on A Chip, 2014, 14, 1168-1175.	6.0	102
7	Exploiting radiative cooling for uninterrupted 24-hour water harvesting from the atmosphere. Science Advances, 2021, 7, .	10.3	100
8	Metasurfaces Leveraging Solar Energy for Icephobicity. ACS Nano, 2018, 12, 7009-7017.	14.6	93
9	Highly Liquid-Repellent, Large-Area, Nanostructured Poly(vinylidene fluoride)/Poly(ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 4 2010, 2, 1114-1119.	8.0	88
10	Superoleophobic and conductive carbon nanofiber/fluoropolymer composite films. Carbon, 2012, 50, 1346-1354.	10.3	85
11	Superhydrophobicity enhancement through substrate flexibility. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13307-13312.	7.1	85
12	Leidenfrost droplet trampolining. Nature Communications, 2021, 12, 1727.	12.8	79
13	Spontaneous self-dislodging of freezing water droplets and the role of wettability. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11040-11045.	7.1	73
14	The Fluid Diode: Tunable Unidirectional Flow through Porous Substrates. ACS Applied Materials & Interfaces, 2014, 6, 12837-12843.	8.0	69
15	Morphing and vectoring impacting droplets by means of wettability-engineered surfaces. Scientific Reports, 2014, 4, 7029.	3.3	67
16	Water-Based, Nonfluorinated Dispersions for Environmentally Benign, Large-Area, Superhydrophobic Coatings. ACS Applied Materials & Interfaces, 2013, 5, 13419-13425.	8.0	66
17	Transparent Metasurfaces Counteracting Fogging by Harnessing Sunlight. Nano Letters, 2019, 19, 1595-1604.	9.1	66
18	Superhydrophobicâ€“superhydrophilic binary micropatterns by localized thermal treatment of polyhedral oligomeric silsesquioxane (POSS)â€“silica films. Nanoscale, 2012, 4, 5378.	5.6	64

#	ARTICLE	IF	CITATIONS
19	Imparting Icephobicity with Substrate Flexibility. Langmuir, 2017, 33, 6708-6718.	3.5	62
20	Superhydrophobic surfaces for extreme environmental conditions. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27188-27194.	7.1	58
21	Sustaining dry surfaces under water. Scientific Reports, 2015, 5, 12311.	3.3	56
22	Water-Based Superhydrophobic Coatings for Nonwoven and Cellulosic Substrates. Industrial & Engineering Chemistry Research, 2014, 53, 222-227.	3.7	50
23	Novel Fluoropolymer Blends for the Fabrication of Sprayable Multifunctional Superhydrophobic Nanostructured Composites. Industrial & Engineering Chemistry Research, 2011, 50, 11117-11123.	3.7	49
24	Surface tension confined (STC) tracks for capillary-driven transport of low surface tension liquids. Lab on A Chip, 2012, 12, 5237.	6.0	44
25	Wetting transitions in droplet drying on soft materials. Nature Communications, 2019, 10, 4776.	12.8	44
26	3D-Printed Surface Architecture Enhancing Superhydrophobicity and Viscous Droplet Repellency. ACS Applied Materials & Interfaces, 2018, 10, 43275-43281.	8.0	38
27	Enhanced Atmospheric Water Harvesting with Sunlight-Activated Sorption Ratcheting. ACS Applied Materials & Interfaces, 2022, 14, 2237-2245.	8.0	36
28	High strain sustaining, nitrile rubber based, large-area, superhydrophobic, nanostructured composite coatings. Composites Part A: Applied Science and Manufacturing, 2011, 42, 979-985.	7.6	33
29	Transparent Photothermal Metasurfaces Amplifying Superhydrophobicity by Absorbing Sunlight. ACS Nano, 2020, 14, 11712-11721.	14.6	31
30	Cascade Freezing of Supercooled Water Droplet Collectives. ACS Nano, 2018, 12, 11274-11281.	14.6	26
31	Desublimation Frosting on Nanoengineered Surfaces. ACS Nano, 2018, 12, 8288-8296.	14.6	26
32	Quasi-optical terahertz polarizers enabled by inkjet printing of carbon nanocomposites. Applied Physics Letters, 2012, 101, .	3.3	20
33	Bitumen surface microstructure evolution in subzero environments. Journal of Microscopy, 2020, 279, 3-15.	1.8	15
34	On the shedding of impaled droplets: The role of transient intervening layers. Scientific Reports, 2016, 6, 18875.	3.3	14
35	Microscale investigation on interfacial slippage and detachment of ice from soft materials. Materials Horizons, 2022, 9, 1222-1231.	12.2	12
36	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

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37	Detergency and Its Implications for Oil Emulsion Sieving and Separation. Langmuir, 2017, 33, 4250-4259.	3.5	11
38	Patterning of colloidal droplet deposits on soft materials. Journal of Fluid Mechanics, 2021, 907, .	3.4	9
39	Dropwise condensation freezing and frosting on bituminous surfaces at subzero temperatures. Construction and Building Materials, 2021, 298, 123851.	7.2	9
40	Contactless Transport and Mixing of Liquids on Self-Sustained Sublimating Coatings. Langmuir, 2017, 33, 1799-1809.	3.5	7
41	In Situ Assembly in Confined Spaces of Coated Particle Scaffolds as Thermal Underfills with Extraordinary Thermal Conductivity. ACS Applied Materials & Interfaces, 2015, 7, 838-844.	8.0	4
42	Bistability of Dielectrically Anisotropic Nematic Crystals and the Adaptation of Endothelial Collectives to Stress Fields. Advanced Science, 2022, , 2102148.	11.2	3
43	How to Engineer Surfaces to Control and Optimize Boiling, Condensation and Frost Formation?. , 2018, , 63-158.		1
44	Omnidirectional droplet propulsion on surfaces with a Pac-Man coalescence mechanism. Physical Review Fluids, 2020, 5, .	2.5	1