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	Enhanced Atmospheric Water Harvesting with Sunlight-Activated Sorption Ratcheting. ACS Applied Materials & Interfaces, 2022, 14, 2237-2245.	8.0	36
2	Microscale investigation on interfacial slippage and detachment of ice from soft materials. Materials Horizons, 2022, 9, 1222-1231.	12.2	12
3	Bistability of Dielectrically Anisotropic Nematic Crystals and the Adaptation of Endothelial Collectives to Stress Fields. Advanced Science, 2022, , 2102148.	11.2	3
4	Patterning of colloidal droplet deposits on soft materials. Journal of Fluid Mechanics, 2021, 907, .	3.4	9
5	Leidenfrost droplet trampolining. Nature Communications, 2021, 12, 1727.	12.8	79
6	Exploiting radiative cooling for uninterrupted 24-hour water harvesting from the atmosphere. Science Advances, 2021, 7, .	10.3	100
7	Dropwise condensation freezing and frosting on bituminous surfaces at subzero temperatures. Construction and Building Materials, 2021, 298, 123851.	7.2	9
8	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
9	Transparent Photothermal Metasurfaces Amplifying Superhydrophobicity by Absorbing Sunlight. ACS Nano, 2020, 14, 11712-11721.	14.6	31
10	Bitumen surface microstructure evolution in subzero environments. Journal of Microscopy, 2020, 279, 3-15.	1.8	15
11	Omnidirectional droplet propulsion on surfaces with a Pac-Man coalescence mechanism. Physical Review Fluids, 2020, 5, .	2.5	1
12	Wetting transitions in droplet drying on soft materials. Nature Communications, 2019, 10, 4776.	12.8	44
13	Transparent Metasurfaces Counteracting Fogging by Harnessing Sunlight. Nano Letters, 2019, 19, 1595-1604.	9.1	66
14	3D-Printed Surface Architecture Enhancing Superhydrophobicity and Viscous Droplet Repellency. ACS Applied Materials & Interfaces, 2018, 10, 43275-43281.	8.0	38
15	Cascade Freezing of Supercooled Water Droplet Collectives. ACS Nano, 2018, 12, 11274-11281.	14.6	26
16	How to Engineer Surfaces to Control and Optimize Boiling, Condensation and Frost Formation?. , 2018, , 63-158.		1
17	Metasurfaces Leveraging Solar Energy for Icephobicity. ACS Nano, 2018, 12, 7009-7017.	14.6	93
18	Desublimation Frosting on Nanoengineered Surfaces. ACS Nano, 2018, 12, 8288-8296.	14.6	26

#	ARTICLE	IF	CITATIONS
19	Contactless Transport and Mixing of Liquids on Self-Sustained Sublimating Coatings. Langmuir, 2017, 33, 1799-1809.	3.5	7
20	Imparting Icephobicity with Substrate Flexibility. Langmuir, 2017, 33, 6708-6718.	3.5	62
21	Detergency and Its Implications for Oil Emulsion Sieving and Separation. Langmuir, 2017, 33, 4250-4259.	3.5	11
22	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
23	On the shedding of impaled droplets: The role of transient intervening layers. Scientific Reports, 2016, 6, 18875.	3.3	14
24	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
25	On the Mechanism of Hydrophilicity of Graphene. Nano Letters, 2016, 16, 4447-4453.	9.1	148
26	Sustaining dry surfaces under water. Scientific Reports, 2015, 5, 12311.	3.3	56
27	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
28	Spontaneous droplet trampolining on rigid superhydrophobic surfaces. Nature, 2015, 527, 82-85.	27.8	349
29	Physics of Icing and Rational Design of Surfaces with Extraordinary Icephobicity. Langmuir, 2015, 31, 4807-4821.	3.5	292
30	Surface engineering for phase change heat transfer: A review. MRS Energy & Sustainability, 2014, 1, 1.	3.0	288
31	Water-Based Superhydrophobic Coatings for Nonwoven and Cellulosic Substrates. Industrial & Engineering Chemistry Research, 2014, 53, 222-227.	3.7	50
32	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
33	The Fluid Diode: Tunable Unidirectional Flow through Porous Substrates. ACS Applied Materials & Interfaces, 2014, 6, 12837-12843.	8.0	69
34	Inkjet patterned superhydrophobic paper for open-air surface microfluidic devices. Lab on A Chip, 2014, 14, 1168-1175.	6.0	102
35	Morphing and vectoring impacting droplets by means of wettability-engineered surfaces. Scientific Reports, 2014, 4, 7029.	3.3	67
36	Water-Based, Nonfluorinated Dispersions for Environmentally Benign, Large-Area, Superhydrophobic Coatings. ACS Applied Materials & Interfaces, 2013, 5, 13419-13425.	8.0	66

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37	Quasi-optical terahertz polarizers enabled by inkjet printing of carbon nanocomposites. Applied Physics Letters, 2012, 101, .	3.3	20
38	Surface tension confined (STC) tracks for capillary-driven transport of low surface tension liquids. Lab on A Chip, 2012, 12, 5237.	6.0	44
39	Superhydrophobicâ€“superhydrophilic binary micropatterns by localized thermal treatment of polyhedral oligomeric silsesquioxane (POSS)â€“silica films. Nanoscale, 2012, 4, 5378.	5.6	64
40	Superoleophobic and conductive carbon nanofiber/fluoropolymer composite films. Carbon, 2012, 50, 1346-1354.	10.3	85
41	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
42	Novel Fluoropolymer Blends for the Fabrication of Sprayable Multifunctional Superhydrophobic Nanostructured Composites. Industrial & Engineering Chemistry Research, 2011, 50, 11117-11123.	3.7	49
43	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
44	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