Alberto Giacomello

List of Publications by Year
in descending order

40 papers	1,316 citations	393982 19 h-index	344852 36 g-index
40 all docs	40 docs citations	40 times ranked	1244 citing authors

#	Article	IF	Citations
1	Cassieâ€“Baxter and Wenzel States on a Nanostructured Surface: Phase Diagram, Metastabilities, and Transition Mechanism by Atomistic Free Energy Calculations. Langmuir, 2012, 28, 10764-10772.	1.6	179
2	Metastable Wetting on Superhydrophobic Surfaces: Continuum and Atomistic Views of the Cassie-Baxterâ€“Wenzel Transition. Physical Review Letters, 2012, 109, 226102.	2.9	131
3	Underwater energy harvesting from a heavy flag hosting ionic polymer metal composites. Journal of Applied Physics, 2011, 109, 084903.	1.1	126
4	Collapse and Reversibility of the Superhydrophobic State on Nanotextured Surfaces. Physical Review Letters, 2014, 112, .	2.9	114
5	Intrusion and extrusion of water in hydrophobic nanopores. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10266-E10273.	3.3	66
6	Wetting hysteresis induced by nanodefects. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E262-71.	3.3	63
7	Hierarchical macro-nanoporous metals for leakage-free high-thermal conductivity shape-stabilized phase change materials. Applied Energy, 2020, 269, 115088.	5.1	52
8	Geometry as a Catalyst: How Vapor Cavities Nucleate from Defects. Langmuir, 2013, 29, 14873-14884.	1.6	49
9	Unraveling the Salvinia Paradox: Design Principles for Submerged Superhydrophobicity. Advanced Materials Interfaces, 2015, 2, 1500248.	1.9	39
10	Focus Article: Theoretical aspects of vapor/gas nucleation at structured surfaces. Journal of Chemical Physics, 2016, 145, 211802.	1.2	37
11	Mechanism of the Cassie-Wenzel transition via the atomistic and continuum string methods. Journal of Chemical Physics, 2015, 142, 104701.	1.2	35
12	Wetting and cavitation pathways on nanodecorated surfaces. Soft Matter, 2016, 12, 3046-3055.	1.2	29
13	Self-Recovery Superhydrophobic Surfaces: Modular Design. ACS Nano, 2018, 12, 359-367.	7.3	29
14	The interplay among gas, liquid and solid interactions determines the stability of surface nanobubbles. Nanoscale, 2020, 12, 22698-22709.	2.8	27
15	Perpetual superhydrophobicity. Soft Matter, 2016, 12, 8927-8934.	1.2	26
16	Pore Morphology Determines Spontaneous Liquid Extrusion from Nanopores. ACS Nano, 2019, 13, 1728-1738.	7.3	25
17	Giant Negative Compressibility by Liquid Intrusion into Superhydrophobic Flexible Nanoporous Frameworks. Nano Letters, 2021, 21, 2848-2853.	4.5	24
18	Pressure effects on water slippage over silane-coated rough surfaces: pillars and holes. Microfluidics and Nanofluidics, 2014, 16, 1009-1018.	1.0	20

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19	Recovering superhydrophobicity in nanoscale and macroscale surface textures. Soft Matter, 2019, 15, 7462-7471.	1.2	20
20	Pressure control in interfacial systems: Atomistic simulations of vapor nucleation. Journal of Chemical Physics, 2018, 148, 064706.	1.2	19
21	Collapse of superhydrophobicity on nanopillared surfaces. Physical Review Fluids, 2017, 2, .	1.0	19
22	Intrusion and extrusion of a liquid on nanostructured surfaces. Journal of Physics Condensed Matter, 2017, 29, 014003.	0.7	18
23	Gas-Induced Drying of Nanopores. Journal of Physical Chemistry Letters, 2020, 11, 9171-9177.	2.1	18
24	Liquid intrusion in and extrusion from non-wettable nanopores for technological applications. European Physical Journal B, 2021, 94, 1.	0.6	18
25	Viscosity at the Nanoscale: Confined Liquid Dynamics and Thermal Effects in Self-Recovering Nanobumpers. Journal of Physical Chemistry C, 2018, 122, 14248-14256.	1.5	15
26	Bubble formation in nanopores: a matter of hydrophobicity, geometry, and size. Advances in Physics: X, 2020, 5, 1817780.	1.5	15
27	Vapor nucleation paths in lyophobic nanopores. European Physical Journal E, 2018, 41, 52.	0.7	14
28	Wetting and recovery of nano-patterned surfaces beyond the classical picture. Nanoscale, 2019, 11, 21458-21470.	2.8	14
29	Tempering of Au nanoclusters: capturing the temperature-dependent competition among structural motifs. Nanoscale, 2022, 14, 939-952.	2.8	14
30	Activated Wetting of Nanostructured Surfaces: Reaction Coordinates, Finite Size Effects, and Simulation Pitfalls. Journal of Physical Chemistry B, 2018, 122, 200-212.	1.2	11
31	Water slippage on hydrophobic nanostructured surfaces: molecular dynamics results for different filling levels. Meccanica, 2013, 48, 1853-1861.	1.2	9
32	Computational methods and theory for ion channel research. Advances in Physics: X, 2022, 7, .	1.5	8
33	Structure and dynamics of water confined in cylindrical nanopores with varying hydrophobicity. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200403.	1.6	7
34	Molecular dynamics simulations suggest possible activation and deactivation pathways in the hERG channel. Communications Biology, 2022, 5, 165.	2.0	6
35	Exploring Kv1.2 Channel Inactivation Through MD Simulations and Network Analysis. Frontiers in Molecular Biosciences, 2021, 8, 784276.	1.6	5
36	Unveiling the Gating Mechanism of CRAC Channel: A Computational Study. Frontiers in Molecular Biosciences, 2021, 8, 773388.	1.6	5

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37	Energy harvesting from flutter instabilities of heavy flags in water through ionic polymer metal composites. Proceedings of SPIE, 2011, , .	0.8	4
38	Can One Predict a Drop Contact Angle?. Advanced Materials Interfaces, 2021, 8, 2101005.	1.9	3
39	How to control bubble nucleation from superhydrophobic surfaces. Journal of Physics: Conference Series, 2015, 656, 012124.	0.3	2
40	Intrinsic and apparent slip at gas-enriched liquidâ€"liquid interfaces: a molecular dynamics study. Journal of Fluid Mechanics, 2022, 938, .	1.4	1