

Chuanhua Duan

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

2,290
citations

430874

18
h-index

501196

28
g-index

38
all docs

38
docs citations

38
times ranked

2951
citing authors

#	ARTICLE	IF	CITATIONS
1	Rectification of Ionic Current in a Nanofluidic Diode. Nano Letters, 2007, 7, 547-551.	9.1	484
2	Anomalous ion transport in 2-nm hydrophilic nanochannels. Nature Nanotechnology, 2010, 5, 848-852.	31.5	328
3	Power generation from concentration gradient by reverse electrodialysis in ion-selective nanochannels. Microfluidics and Nanofluidics, 2010, 9, 1215-1224.	2.2	317
4	Fast water transport in graphene nanofluidic channels. Nature Nanotechnology, 2018, 13, 238-245.	31.5	220
5	Review article: Fabrication of nanofluidic devices. Biomicrofluidics, 2013, 7, 26501.	2.4	218
6	Evaporation-induced cavitation in nanofluidic channels. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3688-3693.	7.1	116
7	Exploring Ultimate Water Capillary Evaporation in Nanoscale Conduits. Nano Letters, 2017, 17, 4813-4819.	9.1	87
8	Diffusion-Limited Patterning of Molecules in Nanofluidic Channels. Nano Letters, 2006, 6, 1735-1740.	9.1	78
9	Ultrafast Diameter-Dependent Water Evaporation from Nanopores. ACS Nano, 2019, 13, 3363-3372.	14.6	70
10	Voltage-gated optics and plasmonics enabled by solid-state proton pumping. Nature Communications, 2019, 10, 5030.	12.8	51
11	Exploring Anomalous Fluid Behavior at the Nanoscale: Direct Visualization and Quantification via Nanofluidic Devices. Accounts of Chemical Research, 2020, 53, 347-357.	15.6	43
12	Label-Free Electrical Detection of Enzymatic Reactions in Nanochannels. ACS Nano, 2016, 10, 7476-7484.	14.6	42
13	Microfluidic detection of movements of <i>Escherichia coli</i> for rapid antibiotic susceptibility testing. Lab on A Chip, 2018, 18, 743-753.	6.0	32
14	Accurate measurement of liquid transport through nanoscale conduits. Scientific Reports, 2016, 6, 24936.	3.3	31
15	Ion transport in graphene nanofluidic channels. Nanoscale, 2016, 8, 19527-19535.	5.6	30
16	Structures and thermodynamics of water encapsulated by graphene. Scientific Reports, 2017, 7, 2646.	3.3	26
17	Single bubble dynamics on superheated superhydrophobic surfaces. International Journal of Heat and Mass Transfer, 2016, 99, 521-531.	4.8	25
18	Bubble-Regulated Silicon Nanowire Synthesis on Micro-Structured Surfaces by Metal-Assisted Chemical Etching. Langmuir, 2015, 31, 12291-12299.	3.5	21

#	ARTICLE	IF	CITATIONS
19	Geometry-Dependent Drying in Dead-End Nanochannels. <i>Langmuir</i> , 2017, 33, 8395-8403.	3.5	17
20	Characterization and manipulation of single nanoparticles using a nanopore-based electrokinetic tweezer. <i>Nanoscale</i> , 2019, 11, 22924-22931.	5.6	11
21	Experimental Study on Capillary Imbibition of Shale Oil in Nanochannels. <i>Energy & Fuels</i> , 2022, 36, 5267-5275.	5.1	10
22	Geometrical control of ionic current rectification in a configurable nanofluidic diode. <i>Biomicrofluidics</i> , 2016, 10, 054102.	2.4	9
23	Mechanics of liquid-liquid interfaces and mixing enhancement in microscale flows. <i>Journal of Fluid Mechanics</i> , 2010, 652, 207-240.	3.4	8
24	Anomalous mechanosensitive ion transport in nanoparticle-blocked nanopores. <i>Journal of Chemical Physics</i> , 2021, 154, 224702.	3.0	5
25	Microstructural ordering of nanofibers in flow-directed assembly. <i>Science China Technological Sciences</i> , 2019, 62, 1545-1554.	4.0	4
26	Edge-enhanced ultrafast water evaporation from graphene nanopores. <i>Cell Reports Physical Science</i> , 2022, 3, 100900.	5.6	3
27	Nanoparticle-blockage-enabled rapid and reversible nanopore gating with tunable memory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	2
28	Power Generation From Concentration Gradient by Reverse Electrodialysis in Ion Selective Nanochannel. , 2009, , .		1
29	Theoretical investigation of enzymatic hydrolysis of polypeptides in nanofluidic channels. <i>Microfluidics and Nanofluidics</i> , 2017, 21, 1.	2.2	1
30	Temperature Evaluation of Conventional, SOI, and DSOI Mosfets Using Non-Equilibrium Energy Model. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2006, 10, 249-261.	2.6	0
31	Transport of Ions and Molecules in Nanofluidic Devices. , 2008, , .		0
32	Detection of Non-Diffusion-Limited Enzymatic Surface Reaction in Nanofluidic Channels. , 2009, , .		0
33	Evaporation Induced Cavitation in Nanochannels. , 2010, , .		0
34	Evaporation-Induced Cavitation in Nanofluidic Channels: Dynamics and Origin. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2014, , 131-139.	0.2	0
35	Evaporation-assisted patterning beyond random assembly. <i>National Science Review</i> , 2019, 6, 1065-1066.	9.5	0
36	Nanofluidic Devices for Sensing and Flow Control. , 2006, , .		0

#	ARTICLE	IF	CITATIONS
37	Ion Transport in 2-NM Nanochannels. , 2009, , .		0
38	Enhanced Ion Transport in 2-nm Silica Nanochannels. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 83-93.	0.2	0