

Walter W Reisner

List of Publications by Year in descending order

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42
papers

2,371
citations

331670

21
h-index

254184

43
g-index

45
all docs

45
docs citations

45
times ranked

1431
citing authors

#	ARTICLE	IF	CITATIONS
1	Statics and Dynamics of Single DNA Molecules Confined in Nanochannels. <i>Physical Review Letters</i> , 2005, 94, 196101.	7.8	480
2	The dynamics of genomic-length DNA molecules in 100-nm channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 10979-10983.	7.1	458
3	DNA confinement in nanochannels: physics and biological applications. <i>Reports on Progress in Physics</i> , 2012, 75, 106601.	20.1	295
4	Single-molecule denaturation mapping of DNA in nanofluidic channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13294-13299.	7.1	183
5	Confinement Spectroscopy: Probing Single DNA Molecules with Tapered Nanochannels. <i>Nano Letters</i> , 2009, 9, 1382-1385.	9.1	118
6	Directed self-organization of single DNA molecules in a nanoslit via embedded nanopit arrays. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 79-84.	7.1	82
7	A nanofluidic knot factory based on compression of single DNA in nanochannels. <i>Nature Communications</i> , 2018, 9, 1506.	12.8	59
8	Mixed confinement regimes during equilibrium confinement spectroscopy of DNA. <i>Journal of Chemical Physics</i> , 2014, 140, 214901.	3.0	43
9	Experimental Evidence of Weak Excluded Volume Effects for Nanochannel Confined DNA. <i>ACS Macro Letters</i> , 2015, 4, 759-763.	4.8	43
10	High Osmotic Power Generation via Nanopore Arrays in Hybrid Hexagonal Boron Nitride/Silicon Nitride Membranes. <i>Nano Letters</i> , 2021, 21, 4152-4159.	9.1	42
11	Pressure-Driven DNA in Nanogroove Arrays: Complex Dynamics Leads to Length- and Topology-Dependent Separation. <i>Nano Letters</i> , 2011, 11, 1598-1602.	9.1	38
12	Convex lens-induced nanoscale templating. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13295-13300.	7.1	38
13	Single Molecule DNA Resensing Using a Two-Pore Device. <i>Small</i> , 2018, 14, e1801890.	10.0	37
14	Nanopore Formation via Tip-Controlled Local Breakdown Using an Atomic Force Microscope. <i>Small Methods</i> , 2019, 3, 1900147.	8.6	36
15	Dynamic Compression of Single Nanochannel Confined DNA via a Nanodozer Assay. <i>Physical Review Letters</i> , 2014, 113, 268104.	7.8	35
16	Measuring the Confinement Free Energy and Effective Width of Single Polymer Chains via Single-Molecule Tetris. <i>Macromolecules</i> , 2015, 48, 5028-5033.	4.8	31
17	Development of a platform for single cell genomics using convex lens-induced confinement. <i>Lab on A Chip</i> , 2015, 15, 3013-3020.	6.0	27
18	Collapse of DNA in ac Electric Fields. <i>Physical Review Letters</i> , 2011, 106, 248103.	7.8	26

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19	Denaturation mapping of <i>Saccharomyces cerevisiae</i> . <i>Lab on A Chip</i> , 2012, 12, 3314.	6.0	25
20	Controlling DNA Tug-of-War in a Dual Nanopore Device. <i>Small</i> , 2019, 15, 1901704.	10.0	25
21	Flossing DNA in a Dual Nanopore Device. <i>Small</i> , 2020, 16, e1905379.	10.0	24
22	Continuous Confinement Fluidics: Getting Lots of Molecules into Small Spaces with High Fidelity. <i>Macromolecules</i> , 2016, 49, 2853-2859.	4.8	23
23	Transverse dielectrophoretic-based DNA nanoscale confinement. <i>Scientific Reports</i> , 2018, 8, 5981.	3.3	23
24	Nonequilibrium Dynamics of Nanochannel Confined DNA. <i>Macromolecules</i> , 2016, 49, 1933-1940.	4.8	21
25	Fabrication and characterization of nanopore-interfaced nanochannel devices. <i>Nanotechnology</i> , 2015, 26, 455301.	2.6	18
26	DNA barcoding via counterstaining with AT/GC sensitive ligands in injection-molded all-polymer nanochannel devices. <i>Analyst</i> , 2013, 138, 1249.	3.5	15
27	Probing the organization and dynamics of two DNA chains trapped in a nanofluidic cavity. <i>Soft Matter</i> , 2018, 14, 8455-8465.	2.7	14
28	Diffusion Resonance of Nanoconfined Polymers. <i>Macromolecules</i> , 2012, 45, 2122-2127.	4.8	13
29	Correlated Fluctuations of DNA between Nanofluidic Entropic Traps. <i>Macromolecules</i> , 2015, 48, 4742-4747.	4.8	12
30	Evolution of Nested Folding States in Compression of a Strongly Confined Semiflexible Chain. <i>Macromolecules</i> , 2018, 51, 4012-4022.	4.8	12
31	Transition state theory demonstrated at the micron scale with out-of-equilibrium transport in a confined environment. <i>Nature Communications</i> , 2016, 7, 10227.	12.8	11
32	Nanofluidics for Simultaneous Size and Charge Profiling of Extracellular Vesicles. <i>Nano Letters</i> , 2021, 21, 4895-4902.	9.1	11
33	Dynamics of DNA Squeezed Inside a Nanochannel via a Sliding Gasket. <i>Polymers</i> , 2016, 8, 352.	4.5	9
34	Dynamic imaging of Au-nanoparticles via scanning electron microscopy in a graphene wet cell. <i>Nanotechnology</i> , 2015, 26, 315703.	2.6	8
35	Hydrogel droplet single-cell processing: DNA purification, handling, release, and on-chip linearization. <i>Biomicrofluidics</i> , 2018, 12, 024107.	2.4	8
36	Compression of Nanoslit Confined Polymer Solutions. <i>Macromolecules</i> , 2018, 51, 617-625.	4.8	6

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37	Waves of DNA: Propagating excitations in extended nanoconfined polymers. <i>Physical Review E</i> , 2016, 94, 042603.	2.1	5
38	Electronic Mapping of a Bacterial Genome with Dual Solid-State Nanopores and Active Single-Molecule Control. <i>ACS Nano</i> , 2022, 16, 5258-5273.	14.6	5
39	From 2D to 3D: Graphene molding for transparent and flexible probes. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	3
40	Organized states arising from compression of single semiflexible polymer chains in nanochannels. <i>Physical Review E</i> , 2022, 105, .	2.1	3
41	Time-dependent knotting of agitated chains. <i>Physical Review E</i> , 2021, 103, 032501.	2.1	1
42	Discriminating protein tags on a dsDNA construct using a Dual Nanopore Device. <i>Scientific Reports</i> , 2022, 12, .	3.3	1