

Robert H Riehn

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

5,443
citations

279798

23
h-index

182427

51
g-index

66
all docs

66
docs citations

66
times ranked

6022
citing authors

#	ARTICLE	IF	CITATIONS
1	The potential and challenges of nanopore sequencing. <i>Nature Biotechnology</i> , 2008, 26, 1146-1153.	17.5	2,201
2	In Vivo and Scanning Electron Microscopy Imaging of Upconverting Nanophosphors in <i>Caenorhabditis elegans</i> . <i>Nano Letters</i> , 2006, 6, 169-174.	9.1	520
3	Statics and Dynamics of Single DNA Molecules Confined in Nanochannels. <i>Physical Review Letters</i> , 2005, 94, 196101.	7.8	480
4	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
5	Continuous microfluidic immunomagnetic cell separation. <i>Applied Physics Letters</i> , 2004, 85, 5093-5095.	3.3	321
6	Restriction mapping in nanofluidic devices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 10012-10016.	7.1	194
7	Single-molecule studies of repressor-DNA interactions show long-range interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 9796-9801.	7.1	120
8	Near-field optical lithography of a conjugated polymer. <i>Applied Physics Letters</i> , 2003, 82, 526-528.	3.3	114
9	Microfluidic high gradient magnetic cell separation. <i>Journal of Applied Physics</i> , 2006, 99, 08K101.	2.5	112
10	Diffusion mechanisms of localised knots along a polymer. <i>Europhysics Letters</i> , 2006, 76, 696-702.	2.0	67
11	Upconverting nanophosphors for bioimaging. <i>Nanotechnology</i> , 2009, 20, 405701.	2.6	59
12	A Nanofluidic Railroad Switch for DNA. <i>Nano Letters</i> , 2006, 6, 1973-1976.	9.1	47
13	DNA methylation profiling in nanochannels. <i>Biomicrofluidics</i> , 2011, 5, 34106-341068.	2.4	47
14	Cohesin SA1 and SA2 are RNA binding proteins that localize to RNA containing regions on DNA. <i>Nucleic Acids Research</i> , 2020, 48, 5639-5655.	14.5	47
15	Near-field enhanced ultraviolet resonance Raman spectroscopy using aluminum bow-tie nano-antenna. <i>Applied Physics Letters</i> , 2012, 101, 113116.	3.3	46
16	Ultraviolet-visible near-field microscopy of phase-separated blends of polyfluorene-based conjugated semiconductors. <i>Applied Physics Letters</i> , 2001, 79, 833-835.	3.3	41
17	Cohesin SA2 is a sequence-independent DNA-binding protein that recognizes DNA replication and repair intermediates. <i>Journal of Biological Chemistry</i> , 2018, 293, 1054-1069.	3.4	41
18	Stretching chromatin through confinement. <i>Lab on A Chip</i> , 2009, 9, 2772.	6.0	37

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19	Enhanced electrostatic force microscopy reveals higher-order DNA looping mediated by the telomeric protein TRF2. <i>Scientific Reports</i> , 2016, 6, 20513.	3.3	30
20	Functional interplay between SA1 and TRF1 in telomeric DNA binding and DNA-DNA pairing. <i>Nucleic Acids Research</i> , 2016, 44, 6363-6376.	14.5	30
21	Local Probing of Photocurrent and Photoluminescence in a Phase-Separated Conjugated-Polymer Blend by Means of Near-Field Excitation. <i>Advanced Functional Materials</i> , 2006, 16, 469-476.	14.9	27
22	Collapse of DNA in ac Electric Fields. <i>Physical Review Letters</i> , 2011, 106, 248103.	7.8	26
23	CpG and methylation-dependent DNA binding and dynamics of the methylcytosine binding domain 2 protein at the single-molecule level. <i>Nucleic Acids Research</i> , 2017, 45, 9164-9177.	14.5	25
24	Efficient blue-green light emitting poly(1,4-phenylene vinylene) copolymers. <i>Chemical Communications</i> , 2000, , 291-292.	4.1	23
25	The potential and challenges of nanopore sequencing. , 2009, , 261-268.		23
26	Electrochemical and Electroluminescent Properties of Random Copolymers of Fluorine- and Alkoxy-Substituted Poly(p-phenylene vinylene)s. <i>Macromolecules</i> , 2000, 33, 3337-3341.	4.8	22
27	Fabrication of conjugated polymers nanostructures via direct near-field optical lithography. <i>Ultramicroscopy</i> , 2004, 100, 449-455.	1.9	22
28	Single molecule correlation spectroscopy in continuous flow mixers with zero-mode waveguides. <i>Optics Express</i> , 2008, 16, 10077.	3.4	22
29	Fluctuation modes of nanoconfined DNA. <i>Journal of Applied Physics</i> , 2012, 111, 24701-247018.	2.5	21
30	DNA Methylation Detection Using Resonance and Nanobowtie-Antenna-Enhanced Raman Spectroscopy. <i>Biophysical Journal</i> , 2018, 114, 2498-2506.	0.5	21
31	Versatile synthesis of various conjugated aromatic homo- and copolymers. <i>Synthetic Metals</i> , 2001, 122, 1-5.	3.9	20
32	Wetting Micro- and Nanofluidic Devices Using Supercritical Water. <i>Analytical Chemistry</i> , 2006, 78, 5933-5934.	6.5	18
33	Chromatin modification mapping in nanochannels. <i>Biomicrofluidics</i> , 2013, 7, 064105.	2.4	18
34	Probing transient protein-mediated DNA linkages using nanoconfinement. <i>Biomicrofluidics</i> , 2014, 8, 034113.	2.4	13
35	Density fluctuations dispersion relationship for a polymer confined to a nanotube. <i>Applied Physics Letters</i> , 2011, 98, 253704.	3.3	12
36	Flow-driven formation of solid-like microsphere heaps. <i>Soft Matter</i> , 2013, 9, 543-549.	2.7	12

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37	Fluorine-substituted poly(p-phenylenes vinylenes) copolymers. Synthetic Metals, 2001, 124, 67-69.	3.9	11
38	DNA looping by two 5-methylcytosine-binding proteins quantified using nanofluidic devices. Epigenetics and Chromatin, 2020, 13, 18.	3.9	11
39	A two-dimensional photonic structure made from a conjugated, fluorescent polymer. Journal of Optics, 2005, 7, S207-S212.	1.5	8
40	DNA Condensation by Field-Induced Non-Equilibrium Noise. ChemPhysChem, 2009, 10, 2871-2875.	2.1	8
41	Collapse of DNA under alternating electric fields. Physical Review E, 2015, 92, 012714.	2.1	8
42	Structure, dynamics, and regulation of TRF1-TIN2-mediated trans- and cis-interactions on telomeric DNA. Journal of Biological Chemistry, 2021, 297, 101080.	3.4	8
43	Efficient electroluminescent poly(p-phenylene vinylene) copolymers for application in LEDs. Synthetic Metals, 2001, 119, 43-44.	3.9	7
44	Nanochannels for Genomic DNA Analysis: The Long and the Short of It. , 2007, , 151-186.		7
45	DNA Brushing Shoulders: Targeted Looping and Scanning of Large DNA Strands. Nano Letters, 2015, 15, 5641-5646.	9.1	7
46	Nonlinear elasticity of microsphere heaps. Physical Review E, 2014, 90, 022304.	2.1	6
47	Motor-like DNA motion due to an ATP-hydrolyzing protein under nanoconfinement. Scientific Reports, 2018, 8, 10036.	3.3	6
48	TIN2 is an architectural protein that facilitates TRF2-mediated trans- and cis-interactions on telomeric DNA. Nucleic Acids Research, 2021, 49, 13000-13018.	14.5	6
49	Complementary metal oxide semiconductor compatible fabrication and characterization of parylene-C covered nanofluidic channels with integrated nanoelectrodes. Biomicrofluidics, 2009, 3, 031101.	2.4	5
50	SENSING DNA WITH ALTERNATING CURRENTS USING A NANOGAP SENSOR EMBEDDED IN A NANOCHANNEL DEVICE. Nano LIFE, 2013, 03, 1340007.	0.9	2
51	Interference of ATP with the fluorescent probes YOYO-1 and YOYO-3 modifies the mechanical properties of intercalator-stained DNA confined in nanochannels. Mikrochimica Acta, 2015, 182, 1561-1565.	5.0	1
52	Nonaffine deformation under compression and decompression of a flow-stabilized solid. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 084003.	2.3	1
53	Manipulation and control of the electrokinetic motion of a non-conductive micro-particle in microchannel by generating lateral temperature gradient. International Journal of Heat and Mass Transfer, 2018, 126, 861-870.	4.8	1
54	Direct observation of confinement-induced diffusophoresis. Nanotechnology, 2019, 30, 41LT01.	2.6	1

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55	DNA statics and dynamics in nanoscale confinement. , 2005, , .		0
56	Use of sub-10 nm Diameter Upconversion Nanophosphors as Bio-labels. Materials Research Society Symposia Proceedings, 2006, 950, 1.	0.1	0
57	Epigenetic Analysis of Chromatin in Nanochannels. Biophysical Journal, 2010, 98, 600a.	0.5	0
58	DNA Looping Induced by Tubular Confinement. Biophysical Journal, 2013, 104, 253a-254a.	0.5	0
59	Dynamics of Large DNA Loops. Biophysical Journal, 2016, 110, 565a.	0.5	0
60	Cohesin SA2 and EWSR1 in R-Loop Regulation. Biophysical Journal, 2019, 116, 505a.	0.5	0
61	TIN2 is an Architectural Protein Stabilizing TRF1 at Telomere. Biophysical Journal, 2019, 116, 211a-212a.	0.5	0
62	Single-Molecule Study of TRF2 Mediated DNA Compaction using Physiologically Relevant Long Telomeric DNA. Biophysical Journal, 2019, 116, 505a.	0.5	0
63	Nanoplumbing with 2D Metamaterials. Small, 2019, 15, 1803478.	10.0	0
64	DNA methylation detection using UV nano bowtie antenna enhanced Raman spectroscopy. , 2018, , .		0