John J Kasianowicz

List of Publications by Year
in descending order

34 papers	4,259 citations	236925 25 h-index	414414 32 g-index
34 all docs	34 docs citations	34 times ranked	2414 citing authors

#	Article	IF	Citations
1	Microsecond Time-Scale Discrimination Among Polycytidylic Acid, Polyadenylic Acid, and Polyuridylic Acid as Homopolymers or as Segments Within Single RNA Molecules. Biophysical Journal, 1999, 77, 3227-3233.	0.5	897
2	Driven DNA Transport into an Asymmetric Nanometer-Scale Pore. Physical Review Letters, 2000, 85, 3057-3060.	7.8	467
3	Single-molecule mass spectrometry in solution using a solitary nanopore. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8207-8211.	7.1	325
4	Designed protein pores as components for biosensors. Chemistry and Biology, 1997, 4, 497-505.	6.0	280
5	Nanoscopic Porous Sensors. Annual Review of Analytical Chemistry, 2008, 1, 737-766.	5.4	261
6	Dynamics and Free Energy of Polymers Partitioning into a Nanoscale Pore. Macromolecules, 1996, 29, 8517-8522.	4.8	234
7	Disease Detection and Management via Single Nanopore-Based Sensors. Chemical Reviews, 2012, 112, 6431-6451.	47.7	222
8	Theory for polymer analysis using nanopore-based single-molecule mass spectrometry. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12080-12085.	7.1	195
9	Simultaneous Multianalyte Detection with a Nanometer-Scale Pore. Analytical Chemistry, 2001, 73, 2268-2272.	6.5	184
10	Current noise reveals protonation kinetics and number of ionizable sites in an open protein ion channel. Physical Review Letters, 1993, 70, 2352-2355.	7.8	177
11	Real-time single-molecule electronic DNA sequencing by synthesis using polymer-tagged nucleotides on a nanopore array. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5233-5238.	7.1	114
12	PEG-Labeled Nucleotides and Nanopore Detection for Single Molecule DNASequencing by Synthesis. Scientific Reports, 2012, 2, 684.	3.3	109
13	Genetically Engineered Metal Ion Binding Sites on the Outside of a Channel's Transmembrane Î²-Barrel. Biophysical Journal, 1999, 76, 837-845.	0.5	89
14	The charge state of an ion channel controls neutral polymer entry into its pore. European Biophysics Journal, 1997, 26, 471-476.	2.2	86
15	MOSAIC: A Modular Single-Molecule Analysis Interface for Decoding Multistate Nanopore Data. Analytical Chemistry, 2016, 88, 11900-11907.	6.5	85
16	Quantifying Short-Lived Events in Multistate Ionic Current Measurements. ACS Nano, 2014, 8, 1547-1553.	14.6	78
17	Anthrax Biosensor, Protective Antigen Ion Channel Asymmetric Blockade. Journal of Biological Chemistry, 2005, 280, 34056-34062.	3.4	75
18	Analytical applications for pore-forming proteins. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 593-606.	2.6	56

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19	Probing single nanometer-scale pores with polymeric molecular rulers. Journal of Chemical Physics, 2010, 132, 135101.	3.0	47
20	Analytical Approaches for Studying Transporters, Channels and Porins. Chemical Reviews, 2012, 112, 6227-6249.	47.7	42
21	Sizing the Bacillus anthracis PA63 Channel with Nonelectrolyte Poly(Ethylene Glycols). Biophysical Journal, 2008, 95, 1157-1164.	0.5	41
22	The effects of diffusion on an exonuclease/nanopore-based DNA sequencing engine. Journal of Chemical Physics, 2012, 137, 214903.	3.0	30
23	Single Molecule Discrimination of Heteropolytungstates and Their Isomers in Solution with a Nanometer-Scale Pore. Journal of the American Chemical Society, 2016, 138, 7228-7231.	13.7	30
24	Determining the Physical Properties of Molecules with Nanometer-Scale Pores. ACS Sensors, 2018, 3, 251-263.	7.8	28
25	Changes in ion channel geometry resolved to sub-Ã¥ngstrÃ¶m precision via single molecule mass spectrometry. Journal of Physics Condensed Matter, 2010, 22, 454108.	1.8	27
26	Nanometer-Scale Pores: Potential Applications for Analyte Detection and DNA Characterization. Disease Markers, 2002, 18, 185-191.	1.3	19
27	Anthrax toxin-induced rupture of artificial lipid bilayer membranes. Journal of Chemical Physics, 2013, 139, 065101.	3.0	18
28	Genetically Engineered Pores as Metal Ion Biosensors. Materials Research Society Symposia Proceedings, 1993, 330, 217.	0.1	13
29	Diffusion Bias and Photophysical Dynamics of Single Molecules in Unsupported Lipid Bilayer Membranes Probed with Confocal Microscopy. Journal of Physical Chemistry B, 2000, 104, 6103-6107.	2.6	13
30	Biochip for the Detection of Bacillus anthracis Lethal Factor and Therapeutic Agents against Anthrax Toxins. Membranes, 2016, 6, 36.	3.0	9
31	Detecting and Characterizing Individual Molecules with Single Nanopores. Methods in Molecular Biology, 2012, 870, 3-20.	0.9	5
32	A comparison of ion channel current blockades caused by individual poly(ethylene glycol) molecules and polyoxometalate nanoclusters. European Physical Journal E, 2019, 42, 83.	1.6	3
33	Noise analysis of ionization kinetics in a protein ion channel. AIP Conference Proceedings, 1993, , .	0.4	0
34	Phase Transitions of a Polymer Threading a Membrane: Character of the Transition When the Molecule Can Undergo a Helix-Random Coil or an Equilibrium Polymerization Transition. AIP Conference Proceedings, 2003, , .	0.4	0