

# Deqiang Wang

## List of Publications by Year in descending order

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59  
papers

1,293  
citations

430442

18  
h-index

377514

34  
g-index

59  
all docs

59  
docs citations

59  
times ranked

1563  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanopore-based Fourth-generation DNA Sequencing Technology. <i>Genomics, Proteomics and Bioinformatics</i> , 2015, 13, 4-16.	3.0	329
2	Nanopore Sequencing: Electrical Measurements of the Code of Life. <i>IEEE Nanotechnology Magazine</i> , 2010, 9, 281-294.	1.1	81
3	Nanopores in solid-state membranes engineered for single molecule detection. <i>Nanotechnology</i> , 2010, 21, 065502.	1.3	77
4	Fabrication of sub-20 nm nanopore arrays in membranes with embedded metal electrodes at wafer scales. <i>Nanoscale</i> , 2014, 6, 8900-8906.	2.8	57
5	Precise fabrication of a 5 nm graphene nanopore with a helium ion microscope for biomolecule detection. <i>Nanotechnology</i> , 2017, 28, 045302.	1.3	55
6	Quantitative detection of the respective concentrations of chiral compounds with weak measurements. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	41
7	Regulating the Transport of DNA through Biofriendly Nanochannels in a Thin Solid Membrane. <i>Scientific Reports</i> , 2014, 4, 3985.	1.6	40
8	Detection of nerve agent hydrolytes in an engineered nanopore. <i>Sensors and Actuators B: Chemical</i> , 2009, 139, 440-446.	4.0	36
9	3D nanopore shape control by current-stimulus dielectric breakdown. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	35
10	Helium-ion-beam nanofabrication: extreme processes and applications. <i>International Journal of Extreme Manufacturing</i> , 2021, 3, 012001.	6.3	34
11	Dynamics of DNA translocation in a solid-state nanopore immersed in aqueous glycerol. <i>Nanotechnology</i> , 2012, 23, 455102.	1.3	33
12	Label-Free Sensitive Detection of Microcystin-LR via Aptamer-Conjugated Gold Nanoparticles Based on Solid-State Nanopores. <i>Langmuir</i> , 2018, 34, 14825-14833.	1.6	32
13	Stochastic sensing of biomolecules in a nanopore sensor array. <i>Nanotechnology</i> , 2008, 19, 505504.	1.3	28
14	Displacement chemistry-based nanopore analysis of nucleic acids in complicated matrices. <i>Chemical Communications</i> , 2018, 54, 13977-13980.	2.2	27
15	High-efficiency synthesis of large-area monolayer WS <sub>2</sub> crystals on SiO <sub>2</sub> /Si substrate via NaCl-assisted atmospheric pressure chemical vapor deposition. <i>Applied Surface Science</i> , 2020, 533, 147479.	3.1	27
16	Unveiling the spin Hall effect of light in Imbert-Fedorov shift at the Brewster angle with weak measurements. <i>Optics Express</i> , 2018, 26, 22934.	1.7	25
17	A solid-state nanopore-based single-molecule approach for label-free characterization of plant polysaccharides. <i>Plant Communications</i> , 2021, 2, 100106.	3.6	23
18	Covalent Modification of Silicon Nitride Nanopore by Amphoteric Polylysine for Short DNA Detection. <i>ACS Omega</i> , 2017, 2, 7127-7135.	1.6	20

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19	A high extinction ratio THz polarizer fabricated by double-bilayer wire grid structure. AIP Advances, 2016, 6, .	0.6	17
20	Monitoring tetracycline through a solid-state nanopore sensor. Scientific Reports, 2016, 6, 27959.	1.6	17
21	Tungsten Disulfide Nanosheet-Based Field-Effect Transistor Biosensor for DNA Hybridization Detection. ACS Applied Nano Materials, 2022, 5, 5035-5044.	2.4	17
22	Nanopore Technology for the Application of Protein Detection. Nanomaterials, 2021, 11, 1942.	1.9	16
23	Single-Molecule Identification of the Conformations of Human C-Reactive Protein and Its Aptamer Complex with Solid-State Nanopores. ACS Applied Materials & Interfaces, 2022, 14, 12077-12088.	4.0	13
24	Nanopore-based aptasensor for label-free and sensitive vanillin determination in food samples. Food Chemistry, 2022, 389, 133051.	4.2	13
25	Highly Sensitive Fluorescence Assay for miRNA Detection: Investigation of the DNA Spacer Effect on the DSN Enzyme Activity toward Magnetic-Bead-Tethered Probes. ACS Omega, 2022, 7, 2224-2233.	1.6	12
26	Label-free single-molecule identification of telomere G-quadruplexes with a solid-state nanopore sensor. RSC Advances, 2020, 10, 27215-27224.	1.7	10
27	Fabrication of 3D nanovolcano-shaped nanopores with helium ion microscopy. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2018, 36, 011603.	0.6	9
28	A novel dielectric breakdown apparatus for solid-state nanopore fabrication with transient high electric field. Review of Scientific Instruments, 2020, 91, 093203.	0.6	9
29	Nanocrystalline graphite nanopores for DNA sensing. Carbon, 2021, 176, 271-278.	5.4	9
30	Toward clean and crackless polymer-assisted transfer of CVD-grown graphene and its recent advances in GFET-based biosensors. Materials Today Chemistry, 2021, 22, 100578.	1.7	9
31	Slowing down DNA translocation by a nanofiber meshed layer. Journal Physics D: Applied Physics, 2018, 51, 045402.	1.3	8
32	Slowing down DNA translocation velocity using a LiCl salt gradient and nanofiber mesh. European Biophysics Journal, 2019, 48, 261-266.	1.2	8
33	Single-Molecule Study on Interactions between Cyclic Nonribosomal Peptides and Protein Nanopore. ACS Applied Bio Materials, 2020, 3, 554-560.	2.3	8
34	Reduction chemistry-assisted nanopore determination method for immunoglobulin isotypes. Nanoscale, 2020, 12, 19711-19718.	2.8	8
35	Enzyme Hinders HIV-1 Tat Viral Transport and Real-Time Measured with Nanopores. ACS Sensors, 2021, 6, 3781-3788.	4.0	8
36	Comparison Study on Single Nucleotide Transport Phenomena in Carbon Nanotubes. Nano Letters, 2022, 22, 2147-2154.	4.5	8

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37	Graphene-based liquid gated field-effect transistor for label-free detection of DNA hybridization. , 2021, , .		7
38	Highly sensitive fluorescence multiplexed miRNAs biosensors for accurate clinically diagnosis lung cancer disease using LNA-modified DNA probe and DSN enzyme. <i>Analytica Chimica Acta</i> , 2022, 1208, 339778.	2.6	7
39	Investigation of the adsorption behavior of BSA with tethered lipid layer-modified solid-state nanopores in a wide pH range. <i>RSC Advances</i> , 2019, 9, 15431-15436.	1.7	6
40	Nanopore Fabrication via Transient High Electric Field Controlled Breakdown and Detection of Single RNA Molecules. <i>ACS Applied Bio Materials</i> , 2020, 3, 6368-6375.	2.3	6
41	Reversible photo-regulation on the folding/unfolding of telomere G-quadruplexes with solid-state nanopores. <i>Analyst</i> , The, 2021, 146, 655-663.	1.7	6
42	Cross Disjoint Mortise Confined Solid-State Nanopores for Single-Molecule Detection. <i>ACS Applied Nano Materials</i> , 2021, 4, 9811-9820.	2.4	6
43	Investigation of Substrate Swell-Induced Defect Formation in Suspended Graphene upon Helium Ion Implantation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16166-16174.	1.5	5
44	Central Limit Theorem-Based Analysis Method for MicroRNA Detection with Solid-State Nanopores. <i>ACS Applied Bio Materials</i> , 2021, 4, 6394-6403.	2.3	5
45	Nanopore detects $\hat{1}^3$ -radiation inhibited HIV-1 protease activity. <i>Biosensors and Bioelectronics</i> , 2021, 194, 113602.	5.3	5
46	The Raman band shift of suspended graphene impacted by the substrate edge and helium ion irradiation. <i>Nano Express</i> , 2021, 2, 010001.	1.2	5
47	DNA translocation through solid-state nanopore. <i>Journal of Micro-Bio Robotics</i> , 2018, 14, 35-40.	2.1	4
48	Probing the Influence of the Substrate Hole Shape on the Interaction between Helium Ions and Suspended Monolayer Graphene with Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 2202-2211.	1.5	4
49	Direct optical observation of DNA clogging motions near controlled dielectric breakdown silicon nitride nanopores. <i>Sensors and Actuators B: Chemical</i> , 2021, 349, 130796.	4.0	4
50	Investigation on the competition of duplex/ G-quadruplex/ i-motif in telomere sequences and c-MYC gene with a solid-state nanopore sensor. <i>Sensors and Actuators B: Chemical</i> , 2021, 348, 130712.	4.0	4
51	Recent Advances in Ultrasensitive miRNA Biomarkers Detection. <i>Smart Sensors, Measurement and Instrumentation</i> , 2021, , 137-164.	0.4	4
52	Simultaneous Dual-Site Identification of 5<sup>m</sup>C/8<sup>o</sup>G in DNA Triplex Using a Nanopore Sensor. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 32948-32959.	4.0	4
53	Stability of Solid-State Nanopore Fabricated by Dielectric Breakdown. <i>Biophysical Journal</i> , 2016, 110, 506a.	0.2	3
54	De novo profiling of insect-resistant proteins of rice via nanopore peptide differentiation. <i>Biosensors and Bioelectronics</i> , 2022, 212, 114415.	5.3	3

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55	Polarization conversion based on plasmonic phase control by an ultra-thin metallic nano-strips. AIP Advances, 2016, 6, 125304.	0.6	2
56	Fabrication of controllable mesh layers above SiNx micro pores with ZnO nanostructures. Microelectronic Engineering, 2017, 169, 43-48.	1.1	2
57	Solid-state nanopores fabricated by pulse-controlled dielectric breakdown. , 2016, , .		1
58	DNA translocation through solid-state nanopore. , 2017, , .		1
59	Ultrahigh Spatial Resolution Cross-Disjoint Mortise-Confined Solid-State Nanopores with an Ultrathin Middle Layer. Journal of Physical Chemistry C, 2022, 126, 8158-8164.	1.5	0