Bozhi Tian

List of Publications by Year
in descending order

120 papers	13,247 citations	41344 49 h-index	21540 114 g-index
123 all docs	123 docs citations	123 times ranked	15023 citing authors

#	Article	IF	Citations
1	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. Nature, 2007, 449, 885-889.	27.8	2,791
2	Three-Dimensional, Flexible Nanoscale Field-Effect Transistors as Localized Bioprobes. Science, 2010, 329, 830-834.	12.6	734
3	Macroporous nanowire nanoelectronic scaffolds for synthetic tissues. Nature Materials, 2012, 11, 986-994.	27.5	561
4	Single nanowire photovoltaics. Chemical Society Reviews, 2009, 38, 16-24.	38.1	522
5	Cubic Mesoporous Silica with Large Controllable Entrance Sizes and Advanced Adsorption Properties. Angewandte Chemie - International Edition, 2003, 42, 3146-3150.	13.8	487
6	Self-adjusted synthesis of ordered stable mesoporous minerals by acidâ€"base pairs. Nature Materials, 2003, 2, 159-163.	27.5	445
7	Intracellular recordings of action potentials by an extracellular nanoscale field-effect transistor. Nature Nanotechnology, 2012, 7, 174-179.	31.5	412
8	Single and Tandem Axial <i>p-i-n</i> Nanowire Photovoltaic Devices. Nano Letters, 2008, 8, 3456-3460.	9.1	401
9	Coaxial Group IIIâ^'Nitride Nanowire Photovoltaics. Nano Letters, 2009, 9, 2183-2187.	9.1	371
10	Single-crystalline kinked semiconductor nanowire superstructures. Nature Nanotechnology, 2009, 4, 824-829.	31.5	352
11	Nonionic Block Copolymer Synthesis of Large-Pore Cubic Mesoporous Single Crystals by Use of Inorganic Salts. Journal of the American Chemical Society, 2002, 124, 4556-4557.	13.7	311
12	Morphology Development of Mesoporous Materials:â€‰ a Colloidal Phase Separation Mechanism. Chemistry of Materials, 2004, 16, 889-898.	6.7	306
13	Facile Synthesis and Characterization of Novel Mesoporous and Mesorelief Oxides with Gyroidal Structures. Journal of the American Chemical Society, 2004, 126, 865-875.	13.7	297
14	Electrical Recording from Hearts with Flexible Nanowire Device Arrays. Nano Letters, 2009, 9, 914-918.	9.1	205
15	One-Step Nanocasting Synthesis of Highly Ordered Single Crystalline Indium Oxide Nanowire Arrays from Mesostructured Frameworks. Journal of the American Chemical Society, 2003, 125, 4724-4725.	13.7	203
16	Controlled Synthesis of Millimeter-Long Silicon Nanowires with Uniform Electronic Properties. Nano Letters, 2008, 8, 3004-3009.	9.1	189
17	Nanowire transistor arrays for mapping neural circuits in acute brain slices. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1882-1887.	7.1	187
18	Photoelectrochemical modulation of neuronal activity with free-standing coaxial silicon nanowires. Nature Nanotechnology, 2018, 13, 260-266.	31.5	185

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19	Rational design of silicon structures for optically controlled multiscale biointerfaces. Nature Biomedical Engineering, 2018, 2, 508-521.	22.5	183
20	A wavelength-selective photonic-crystal waveguide coupled to a nanowire light source. Nature Photonics, 2008, 2, 622-626.	31.4	162
21	Inorganic semiconductor biointerfaces. Nature Reviews Materials, 2018, 3, 473-490.	48.7	154
22	A Fast Way for Preparing Crack-Free Mesostructured Silica Monolith. Chemistry of Materials, 2003, 15, 536-541.	6.7	148
23	Rational growth of branched nanowire heterostructures with synthetically encoded properties and function. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12212-12216.	7.1	144
24	Highly crystallized mesoporous TiO2 films and their applications in dye sensitized solar cells. Journal of Materials Chemistry, 2005, 15, 2414.	6.7	137
25	Heterogeneous silicon mesostructures for lipid-supported bioelectric interfaces. Nature Materials, 2016, 15, 1023-1030.	27.5	132
26	An atlas of nano-enabled neural interfaces. Nature Nanotechnology, 2019, 14, 645-657.	31.5	129
27	An epicardial bioelectronic patch made from soft rubbery materials and capable of spatiotemporal mapping of electrophysiological activity. Nature Electronics, 2020, 3, 775-784.	26.0	126
28	Luminescent and Raman Active Silver Nanoparticles with Polycrystalline Structure. Journal of the American Chemical Society, 2008, 130, 10472-10473.	13.7	119
29	Outside Looking In: Nanotube Transistor Intracellular Sensors. Nano Letters, 2012, 12, 3329-3333.	9.1	113
30	Recent advances in the synthesis of non-siliceous mesoporous materials. Current Opinion in Solid State and Materials Science, 2003, 7, 191-197.	11.5	109
31	Nanowired Bioelectric Interfaces. Chemical Reviews, 2019, 119, 9136-9152.	47.7	92
32	Plasmonic Photothermal Gold Bipyramid Nanoreactors for Ultrafast Real-Time Bioassays. Journal of the American Chemical Society, 2017, 139, 8054-8057.	13.7	91
33	A sensitive mediator-free tyrosinase biosensor based on an inorganicâ€“organic hybrid titania solâ€“gel matrix. Analytica Chimica Acta, 2003, 489, 199-206.	5.4	84
34	Cellular uptake and dynamics of unlabeled freestanding silicon nanowires. Science Advances, 2016, 2, e1601039.	10.3	84
35	Synthesis of Mesoporous Silica from Commercial Poly(ethylene oxide)/Poly(butylene oxide) Copolymers:Â Toward the Rational Design of Ordered Mesoporous Materials. Journal of Physical Chemistry B, 2003, 107, 13368-13375.	2.6	82
36	Synthetic Nanoelectronic Probes for Biological Cells and Tissues. Annual Review of Analytical Chemistry, 2013, 6, 31-51.	5.4	82

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37	Atomic goldâ€“enabled three-dimensional lithography for silicon mesostructures. Science, 2015, 348, 1451-1455.	12.6	82
38	Optical stimulation of cardiac cells with a polymer-supported silicon nanowire matrix. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 413-421.	7.1	76
39	Silicon Nanowire-Induced Maturation of Cardiomyocytes Derived from Human Induced Pluripotent Stem Cells. Nano Letters, 2015, 15, 2765-2772.	9.1	75
40	Block copolymer templating syntheses of ordered large-pore stable mesoporous aluminophosphates and Fe-aluminophosphate based on an â€œacidâ€“base pairâ€• route. Microporous and Mesoporous Materials, 2004, 67, 123-133.	4.4	72
41	Synthesis of Siliceous Hollow Spheres with Ultra Large Mesopore Wall Structures by Reverse Emulsion Templating. Chemistry Letters, 2002, 31, 62-63.	1.3	70
42	Nanowires and Electrical Stimulation Synergistically Improve Functions of hiPSC Cardiac Spheroids. Nano Letters, 2016, 16, 4670-4678.	9.1	70
43	Single-strand spider silk templating for the formation of hierarchically ordered hollow mesoporous silica fibers. Journal of Materials Chemistry, 2003, 13, 666-668.	6.7	63
44	Preparation of highly ordered mesoporous WO3â€“TiO2 as matrix in matrix-assisted laser desorption/ionization mass spectrometry. Microporous and Mesoporous Materials, 2005, 78, 37-41.	4.4	63
45	Nongenetic optical neuromodulation with silicon-based materials. Nature Protocols, 2019, 14, 1339-1376.	12.0	62
46	Electrochemistry and biosensing of glucose oxidase based on mesoporous carbons with different spatially ordered dimensions. Talanta, 2009, 78, 705-710.	5.5	60
47	Electrochemistry and biosensing reactivity of heme proteins adsorbed on the structure-tailored mesoporous Nb2O5 matrix. Analytica Chimica Acta, 2004, 519, 31-38.	5.4	56
48	Recent advances in bioelectronics chemistry. Chemical Society Reviews, 2020, 49, 7978-8035.	38.1	54
49	Synthesis and characterization of small pore thick-walled SBA-16 templated by oligomeric surfactant with ultra-long hydrophilic chains. Microporous and Mesoporous Materials, 2004, 67, 135-141.	4.4	51
50	Stretchable Redoxâ€Active Semiconducting Polymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2201178.	21.0	50
51	Mesostructured pure and copper-catalyzed tungsten oxide for NO2 detection. Sensors and Actuators B: Chemical, 2007, 126, 18-23.	7.8	48
52	Roadmap on semiconductorâ€“cell biointerfaces. Physical Biology, 2018, 15, 031002.	1.8	45
53	Texturing Silicon Nanowires for Highly Localized Optical Modulation of Cellular Dynamics. Nano Letters, 2018, 18, 4487-4492.	9.1	45
54	Free-Standing Kinked Silicon Nanowires for Probing Inter- and Intracellular Force Dynamics. Nano Letters, 2015, 15, 5492-5498.	9.1	43

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55	Design, synthesis, and characterization of novel nanowire structures for photovoltaics and intracellular probes. Pure and Applied Chemistry, 2011, 83, 2153-2169.	1.9	41
56	Synthesis of Highly Ordered Thermally Stable Cubic Mesostructured Zirconium Oxophosphate Templated by Tri-Headgroup Quaternary Ammonium Surfactants. Chemistry of Materials, 2003, 15, 4046-4051.	6.7	39
57	Ordered Nanowire Arrays of Metal Sulfides Templated by Mesoporous Silica SBA-15 via a Simple Impregnation Reaction. Chemistry Letters, 2003, 32, 824-825.	1.3	39
58	Nanotraps for the containment and clearance of SARS-CoV-2. Matter, 2021, 4, 2059-2082.	10.0	38
59	Cell number per spheroid and electrical conductivity of nanowires influence the function of silicon nanowired human cardiac spheroids. Acta Biomaterialia, 2017, 51, 495-504.	8.3	35
60	Nongenetic Optical Methods for Measuring and Modulating Neuronal Response. ACS Nano, 2018, 12, 4086-4095.	14.6	35
61	Soft materials as biological and artificial membranes. Chemical Society Reviews, 2021, 50, 12679-12701.	38.1	35
62	Synthesis of ordered small pore mesoporous silicates with tailorable pore structures and sizes by polyoxyethylene alkyl amine surfactant. Microporous and Mesoporous Materials, 2006, 90, 23-31.	4.4	33
63	Laser writing of nitrogen-doped silicon carbide for biological modulation. Science Advances, 2020, 6, .	10.3	33
64	Dissecting Biological and Synthetic Softâ€"Hard Interfaces for Tissue-Like Systems. Chemical Reviews, 2022, 122, 5233-5276.	47.7	32
65	Living myofibroblastâ€"silicon composites for probing electrical coupling in cardiac systems. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22531-22539.	7.1	31
66	Dynamic and Programmable Cellular-Scale Granules Enable Tissue-like Materials. Matter, 2020, 2, 948-964.	10.0	30
67	Micelle-enabled self-assembly of porous and monolithic carbon membranes for bioelectronic interfaces. Nature Nanotechnology, 2021, 16, 206-213.	31.5	30
68	Porosity-based heterojunctions enable leadless optoelectronic modulation of tissues. Nature Materials, 2022, 21, 647-655.	27.5	29
69	Biomimetic approaches toward smart bio-hybrid systems. Nano Research, 2018, 11, 3009-3030.	10.4	26
70	Nanoscale semiconductor devices as new biomaterials. Biomaterials Science, 2014, 2, 619-626.	5.4	25
71	Microwave-Assisted Solvothermal Synthesis of Radial ZnS Nanoribbons. Chemistry Letters, 2004, 33, 522-523.	1.3	24
72	Synthesis of Large-Pore Periodic Mesoporous Organosilica (PMO) with Bicontinuous Cubic Structure oflaâ€"3dSymmetry. Chemistry Letters, 2005, 34, 182-183.	1.3	24

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73	Nanoscale silicon for subcellular biointerfaces. Journal of Materials Chemistry B, 2017, 5, 4276-4289.	5.8	24
74	Learning from Solar Energy Conversion: Biointerfaces for Artificial Photosynthesis and Biological Modulation. Nano Letters, 2019, 19, 2189-2197.	9.1	24
75	Silicon Nanowires for Intracellular Optical Interrogation with Subcellular Resolution. Nano Letters, 2020, 20, 1226-1232.	9.1	23
76	Bioelectronic devices: Long-lived recordings. Nature Biomedical Engineering, 2017, 1, .	22.5	22
77	Alloy-assisted deposition of three-dimensional arrays of atomic gold catalyst for crystal growth studies. Nature Communications, 2017, 8, 2014.	12.8	21
78	Rational Design of Semiconductor Nanostructures for Functional Subcellular Interfaces. Accounts of Chemical Research, 2018, 51, 1014-1022.	15.6	21
79	Softâ€"Hard Composites for Bioelectric Interfaces. Trends in Chemistry, 2020, 2, 519-534.	8.5	21
80	Recent advances in materials and applications for bioelectronic and biorobotic systems. View, 2022, 3, .	5.3	18
81	Syntheses of High-Quality Mesoporous Materials Directed by Blends of Nonionic Amphiphiles under Nonaqueous Conditions. Journal of Solid State Chemistry, 2002, 167, 324-329.	2.9	17
82	New catalysts for dichlorodifluoromethane hydrolysis: Mesostructured titanium and aluminum phosphates. Journal of Molecular Catalysis A, 2005, 242, 218-223.	4.8	16
83	Talking to Cells: Semiconductor Nanomaterials at the Cellular Interface. Advanced Biology, 2018, 2, 1700242.	3.0	16
84	A Multifunctional Neutralizing Antibodyâ€Conjugated Nanoparticle Inhibits and Inactivates SARSâ€CoVâ€2. Advanced Science, 2022, 9, e2103240.	11.2	16
85	Nongenetic neural control with light. Science, 2019, 365, 457-457.	12.6	14
86	Structured silicon for revealing transient and integrated signal transductions in microbial systems. Science Advances, 2020, 6, eaay2760.	10.3	14
87	Nanoelectronics for Minimally Invasive Cellular Recordings. Advanced Functional Materials, 2020, 30, 1906210.	14.9	13
88	Synthesis of Metal-Capped Semiconductor Nanowires from Heterodimer Nanoparticle Catalysts. Journal of the American Chemical Society, 2020, 142, 18324-18329.	13.7	13
89	Biological Interfaces, Modulation, and Sensing with Inorganic Nanoâ€Bioelectronic Materials. Small Methods, 2020, 4, 1900868.	8.6	13
90	An Easy Route for the Synthesis of Ordered Three-Dimensional Large-Pore Mesoporous Organosilicas withIm-3mSymmetry. Chemistry Letters, 2004, 33, 1132-1133.	1.3	12

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91	Preparation and Enhanced Electrochromic Property of Three-dimensional Ordered Mesostructured Mixed Tungstenâ€"Titanium Oxides. Chemistry Letters, 2004, 33, 1396-1397.	1.3	11
92	Nano-enabled cellular engineering for bioelectric studies. Nano Research, 2020, 13, 1214-1227.	10.4	11
93	Tracking Longitudinal Rotation of Silicon Nanowires for Biointerfaces. Nano Letters, 2020, 20, 3852-3857.	9.1	11
94	Preparation of Highly Ordered Well-defined Single Crystal Cubic Mesoporous Silica Templated by Gemini Surfactant. Chemistry Letters, 2002, 31, 584-585.	1.3	10
95	Curving neural nanobioelectronics. Nature Nanotechnology, 2019, 14, 733-735.	31.5	10
96	Actin-packed topography: Cytoskeletal response to curvature. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22897-22898.	7.1	9
97	Optical Determination of Silicon Nanowire Diameters for Intracellular Applications. Journal of Physical Chemistry C, 2015, 119, 29105-29115.	3.1	8
98	Biocompatible and Nanoenabled Technologies for Biological Modulation. Advanced Materials Technologies, 2022, 7, 2100216.	5.8	8
99	3D calcite heterostructures for dynamic and deformable mineralized matrices. Nature Communications, 2017, 8, 509.	12.8	7
100	Nanoâ€•and Microscale Optical and Electrical Biointerfaces and Their Relevance to Energy Research. Small, 2021, 17, e2100165.	10.0	7
101	Semiconductor Nanowireâ€Based Cellular and Subcellular Interfaces. Advanced Functional Materials, 2022, 32, 2107997.	14.9	7
102	Biology-guided engineering of bioelectrical interfaces. Nanoscale Horizons, 2022, 7, 94-111.	8.0	5
103	Gold-Decorated Silicon Nanowire Photocatalysts for Intracellular Production of Hydrogen Peroxide. ACS Applied Materials & Interfaces, 2021, 13, 15490-15500.	8.0	4
104	Bridging the gap â€" biomimetic design of bioelectronic interfaces. Current Opinion in Biotechnology, 2021, 72, 69-75.	6.6	4
105	Freestanding nanomaterials for subcellular neuronal interfaces. IScience, 2022, 25, 103534.	4.1	4
106	Multifunctional optofluidic brain probes. Nature Biomedical Engineering, 2019, 3, 596-597.	22.5	3
107	Hydrogen Plasma-Assisted Growth of Gold Nanowires. Crystal Growth and Design, 2020, 20, 4185-4192.	3.0	3
108	Nanoenabled Bioelectrical Modulation. Accounts of Materials Research, 2021, 2, 895-906.	11.7	3

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109	Scalable breakthrough. Nature Nanotechnology, 2018, 13, 875-876.	31.5	2
110	Probing the electronic properties of the electrified silicon/water interface by combining simulations and experiments. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	2
111	Silicon Nanowires and Optical Stimulation for Investigations of Intra- and Intercellular Electrical Coupling. Journal of Visualized Experiments, 2021, , .	0.3	1
112	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. , 2010, , 58-62.		1
113	Characterization and Modeling of Laser Photothermal Heating of Nanocrystalline Silicon Nanowires in Cells to Explain Experimental Phenomena. Journal of Physical Chemistry C, 2021, 125, 22111-22119.	3.1	1
114	Restructuring of ultra-thin branches in multi-nucleated silicon nanowires. Pure and Applied Chemistry, 2020, 92, 1921-1928.	1.9	1
115	Light-triggered biological modulation with silicon-based materials and devices. Bioelectronics in Medicine, 2018, 1, 175-178.	2.0	0
116	Biomimicry for injectable mesh nanoelectronics. Bioelectronics in Medicine, 2019, 2, 55-58.	2.0	0
117	Quiet Brainstorming: Expecting the Unexpected. Matter, 2020, 3, 594-597.	10.0	0
118	Nanostructured silicon for biological modulation. , 2022, , 309-326.		0
119	Self-inhibition effect of metal incorporation in nanoscaled semiconductors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	0
120	Nanomaterial-enabled bioelectrical interfaces. , 2021, , .		0