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	Biocompatible and Nanoenabled Technologies for Biological Modulation. Advanced Materials Technologies, 2022, 7, 2100216.	5.8	8
2	Nanostructured silicon for biological modulation. , 2022, , 309-326.		0
3	Semiconductor Nanowireâ€Based Cellular and Subcellular Interfaces. Advanced Functional Materials, 2022, 32, 2107997.	14.9	7
4	Dissecting Biological and Synthetic Softâ€"Hard Interfaces for Tissue-Like Systems. Chemical Reviews, 2022, 122, 5233-5276.	47.7	32
5	A Multifunctional Neutralizing Antibodyâ€Conjugated Nanoparticle Inhibits and Inactivates SARSâ€CoVâ€2. Advanced Science, 2022, 9, e2103240.	11.2	16
6	Freestanding nanomaterials for subcellular neuronal interfaces. IScience, 2022, 25, 103534.	4.1	4
7	Biology-guided engineering of bioelectrical interfaces. Nanoscale Horizons, 2022, 7, 94-111.	8.0	5
8	Recent advances in materials and applications for bioelectronic and biorobotic systems. View, 2022, 3, .	5.3	18
9	Stretchable Redoxâ€Active Semiconducting Polymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2201178.	21.0	50
10	Porosity-based heterojunctions enable leadless optoelectronic modulation of tissues. Nature Materials, 2022, 21, 647-655.	27.5	29
11	Micelle-enabled self-assembly of porous and monolithic carbon membranes for bioelectronic interfaces. Nature Nanotechnology, 2021, 16, 206-213.	31.5	30
12	Silicon Nanowires and Optical Stimulation for Investigations of Intra- and Intercellular Electrical Coupling. Journal of Visualized Experiments, 2021, , .	0.3	1
13	Gold-Decorated Silicon Nanowire Photocatalysts for Intracellular Production of Hydrogen Peroxide. ACS Applied Materials & Interfaces, 2021, 13, 15490-15500.	8.0	4
14	Nanoâ€•and Microscale Optical and Electrical Biointerfaces and Their Relevance to Energy Research. Small, 2021, 17, e2100165.	10.0	7
15	Nanotraps for the containment and clearance of SARS-CoV-2. Matter, 2021, 4, 2059-2082.	10.0	38
16	Nanoenabled Bioelectrical Modulation. Accounts of Materials Research, 2021, 2, 895-906.	11.7	3
17	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
18	Soft materials as biological and artificial membranes. Chemical Society Reviews, 2021, 50, 12679-12701.	38.1	35

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19	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
20	Bridging the gap â€” biomimetic design of bioelectronic interfaces. Current Opinion in Biotechnology, 2021, 72, 69-75.	6.6	4
21	Nanomaterial-enabled bioelectrical interfaces. , 2021, , .		0
22	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
23	Silicon Nanowires for Intracellular Optical Interrogation with Subcellular Resolution. Nano Letters, 2020, 20, 1226-1232.	9.1	23
24	Nano-enabled cellular engineering for bioelectric studies. Nano Research, 2020, 13, 1214-1227.	10.4	11
25	Nanoelectronics for Minimally Invasive Cellular Recordings. Advanced Functional Materials, 2020, 30, 1906210.	14.9	13
26	Synthesis of Metal-Capped Semiconductor Nanowires from Heterodimer Nanoparticle Catalysts. Journal of the American Chemical Society, 2020, 142, 18324-18329.	13.7	13
27	Recent advances in bioelectronics chemistry. Chemical Society Reviews, 2020, 49, 7978-8035.	38.1	54
28	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
29	Quiet Brainstorming: Expecting the Unexpected. Matter, 2020, 3, 594-597.	10.0	0
30	Laser writing of nitrogen-doped silicon carbide for biological modulation. Science Advances, 2020, 6, .	10.3	33
31	Biological Interfaces, Modulation, and Sensing with Inorganic Nanoâ€Bioelectronic Materials. Small Methods, 2020, 4, 1900868.	8.6	13
32	Tracking Longitudinal Rotation of Silicon Nanowires for Biointerfaces. Nano Letters, 2020, 20, 3852-3857.	9.1	11
33	Structured silicon for revealing transient and integrated signal transductions in microbial systems. Science Advances, 2020, 6, eaay2760.	10.3	14
34	Dynamic and Programmable Cellular-Scale Granules Enable Tissue-like Materials. Matter, 2020, 2, 948-964.	10.0	30
35	Softâ€"Hard Composites for Bioelectric Interfaces. Trends in Chemistry, 2020, 2, 519-534.	8.5	21
36	Hydrogen Plasma-Assisted Growth of Gold Nanowires. Crystal Growth and Design, 2020, 20, 4185-4192.	3.0	3

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37	Restructuring of ultra-thin branches in multi-nucleated silicon nanowires. Pure and Applied Chemistry, 2020, 92, 1921-1928.	1.9	1
38	Nongenetic neural control with light. Science, 2019, 365, 457-457.	12.6	14
39	Multifunctional optofluidic brain probes. Nature Biomedical Engineering, 2019, 3, 596-597.	22.5	3
40	An atlas of nano-enabled neural interfaces. Nature Nanotechnology, 2019, 14, 645-657.	31.5	129
41	Curving neural nanobioelectronics. Nature Nanotechnology, 2019, 14, 733-735.	31.5	10
42	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
43	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
44	Biomimicry for injectable mesh nanoelectronics. Bioelectronics in Medicine, 2019, 2, 55-58.	2.0	0
45	Nanowired Bioelectric Interfaces. Chemical Reviews, 2019, 119, 9136-9152.	47.7	92
46	Learning from Solar Energy Conversion: Biointerfaces for Artificial Photosynthesis and Biological Modulation. Nano Letters, 2019, 19, 2189-2197.	9.1	24
47	Nongenetic optical neuromodulation with silicon-based materials. Nature Protocols, 2019, 14, 1339-1376.	12.0	62
48	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
49	Biomimetic approaches toward smart bio-hybrid systems. Nano Research, 2018, 11, 3009-3030.	10.4	26
50	Talking to Cells: Semiconductor Nanomaterials at the Cellular Interface. Advanced Biology, 2018, 2, 1700242.	3.0	16
51	Rational Design of Semiconductor Nanostructures for Functional Subcellular Interfaces. Accounts of Chemical Research, 2018, 51, 1014-1022.	15.6	21
52	Photoelectrochemical modulation of neuronal activity with free-standing coaxial silicon nanowires. Nature Nanotechnology, 2018, 13, 260-266.	31.5	185
53	Nongenetic Optical Methods for Measuring and Modulating Neuronal Response. ACS Nano, 2018, 12, 4086-4095.	14.6	35
54	Rational design of silicon structures for optically controlled multiscale biointerfaces. Nature Biomedical Engineering, 2018, 2, 508-521.	22.5	183

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55	Roadmap on semiconductorâ€"cell biointerfaces. Physical Biology, 2018, 15, 031002.	1.8	45
56	Light-triggered biological modulation with silicon-based materials and devices. Bioelectronics in Medicine, 2018, 1, 175-178.	2.0	0
57	Inorganic semiconductor biointerfaces. Nature Reviews Materials, 2018, 3, 473-490.	48.7	154
58	Scalable breakthrough. Nature Nanotechnology, 2018, 13, 875-876.	31.5	2
59	Texturing Silicon Nanowires for Highly Localized Optical Modulation of Cellular Dynamics. Nano Letters, 2018, 18, 4487-4492.	9.1	45
60	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
61	Plasmonic Photothermal Gold Bipyramid Nanoreactors for Ultrafast Real-Time Bioassays. Journal of the American Chemical Society, 2017, 139, 8054-8057.	13.7	91
62	Bioelectronic devices: Long-lived recordings. Nature Biomedical Engineering, 2017, 1, .	22.5	22
63	Nanoscale silicon for subcellular biointerfaces. Journal of Materials Chemistry B, 2017, 5, 4276-4289.	5.8	24
64	3D calcite heterostructures for dynamic and deformable mineralized matrices. Nature Communications, 2017, 8, 509.	12.8	7
65	Alloy-assisted deposition of three-dimensional arrays of atomic gold catalyst for crystal growth studies. Nature Communications, 2017, 8, 2014.	12.8	21
66	Cellular uptake and dynamics of unlabeled freestanding silicon nanowires. Science Advances, 2016, 2, e1601039.	10.3	84
67	Nanowires and Electrical Stimulation Synergistically Improve Functions of hiPSC Cardiac Spheroids. Nano Letters, 2016, 16, 4670-4678.	9.1	70
68	Heterogeneous silicon mesostructures for lipid-supported bioelectric interfaces. Nature Materials, 2016, 15, 1023-1030.	27.5	132
69	Optical Determination of Silicon Nanowire Diameters for Intracellular Applications. Journal of Physical Chemistry C, 2015, 119, 29105-29115.	3.1	8
70	Atomic goldâ€"enabled three-dimensional lithography for silicon mesostructures. Science, 2015, 348, 1451-1455.	12.6	82
71	Silicon Nanowire-Induced Maturation of Cardiomyocytes Derived from Human Induced Pluripotent Stem Cells. Nano Letters, 2015, 15, 2765-2772.	9.1	75
72	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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73	Nanoscale semiconductor devices as new biomaterials. Biomaterials Science, 2014, 2, 619-626.	5.4	25
74	Synthetic Nanoelectronic Probes for Biological Cells and Tissues. Annual Review of Analytical Chemistry, 2013, 6, 31-51.	5.4	82
75	Intracellular recordings of action potentials by an extracellular nanoscale field-effect transistor. Nature Nanotechnology, 2012, 7, 174-179.	31.5	412
76	Macroporous nanowire nanoelectronic scaffolds for synthetic tissues. Nature Materials, 2012, 11, 986-994.	27.5	561
77	Outside Looking In: Nanotube Transistor Intracellular Sensors. Nano Letters, 2012, 12, 3329-3333.	9.1	113
78	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
79	Design, synthesis, and characterization of novel nanowire structures for photovoltaics and intracellular probes. Pure and Applied Chemistry, 2011, 83, 2153-2169.	1.9	41
80	Three-Dimensional, Flexible Nanoscale Field-Effect Transistors as Localized Bioprobes. Science, 2010, 329, 830-834.	12.6	734
81	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
82	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. , 2010, , 58-62.		1
83	Single-crystalline kinked semiconductor nanowire superstructures. Nature Nanotechnology, 2009, 4, 824-829.	31.5	352
84	Electrochemistry and biosensing of glucose oxidase based on mesoporous carbons with different spatially ordered dimensions. Talanta, 2009, 78, 705-710.	5.5	60
85	Single nanowire photovoltaics. Chemical Society Reviews, 2009, 38, 16-24.	38.1	522
86	Electrical Recording from Hearts with Flexible Nanowire Device Arrays. Nano Letters, 2009, 9, 914-918.	9.1	205
87	Coaxial Group IIIâˆ’Nitride Nanowire Photovoltaics. Nano Letters, 2009, 9, 2183-2187.	9.1	371
88	A wavelength-selective photonic-crystal waveguide coupled to a nanowire light source. Nature Photonics, 2008, 2, 622-626.	31.4	162
89	Luminescent and Raman Active Silver Nanoparticles with Polycrystalline Structure. Journal of the American Chemical Society, 2008, 130, 10472-10473.	13.7	119
90	Single and Tandem Axial <i>p-i-n</i> Nanowire Photovoltaic Devices. Nano Letters, 2008, 8, 3456-3460.	9.1	401

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91	Controlled Synthesis of Millimeter-Long Silicon Nanowires with Uniform Electronic Properties. Nano Letters, 2008, 8, 3004-3009.	9.1	189
92	Mesostructured pure and copper-catalyzed tungsten oxide for NO2 detection. Sensors and Actuators B: Chemical, 2007, 126, 18-23.	7.8	48
93	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. Nature, 2007, 449, 885-889.	27.8	2,791
94	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
95	Synthesis of Large-Pore Periodic Mesoporous Organosilica (PMO) with Bicontinuous Cubic Structure oflaâ€"3dSymmetry. Chemistry Letters, 2005, 34, 182-183.	1.3	24
96	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
97	New catalysts for dichlorodifluoromethane hydrolysis: Mesostructured titanium and aluminum phosphates. Journal of Molecular Catalysis A, 2005, 242, 218-223.	4.8	16
98	Highly crystallized mesoporous TiO2 films and their applications in dye sensitized solar cells. Journal of Materials Chemistry, 2005, 15, 2414.	6.7	137
99	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
100	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
101	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
102	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
103	Morphology Development of Mesoporous Materials:â€‰ a Colloidal Phase Separation Mechanism. Chemistry of Materials, 2004, 16, 889-898.	6.7	306
104	Preparation and Enhanced Electrochromic Property of Three-dimensional Ordered Mesostructured Mixed Tungstenâ€"Titanium Oxides. Chemistry Letters, 2004, 33, 1396-1397.	1.3	11
105	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
106	Microwave-Assisted Solvothermal Synthesis of Radial ZnS Nanoribbons. Chemistry Letters, 2004, 33, 522-523.	1.3	24
107	Cubic Mesoporous Silica with Large Controllable Entrance Sizes and Advanced Adsorption Properties. Angewandte Chemie - International Edition, 2003, 42, 3146-3150.	13.8	487
108	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

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109	Self-adjusted synthesis of ordered stable mesoporous minerals by acidâ€“base pairs. Nature Materials, 2003, 2, 159-163.	27.5	445
110	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
111	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
112	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
113	A Fast Way for Preparing Crack-Free Mesostructured Silica Monolith. Chemistry of Materials, 2003, 15, 536-541.	6.7	148
114	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
115	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
116	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
117	Preparation of Highly Ordered Well-defined Single Crystal Cubic Mesoporous Silica Templated by Gemini Surfactant. Chemistry Letters, 2002, 31, 584-585.	1.3	10
118	Synthesis of Siliceous Hollow Spheres with Ultra Large Mesopore Wall Structures by Reverse Emulsion Templating. Chemistry Letters, 2002, 31, 62-63.	1.3	70
119	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
120	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