

Wei Gao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

146
papers

20,686
citations

75
h-index

143
g-index

160
ext. papers

24,879
ext. citations

13.1
avg, IF

7.45
L-index

#	Paper	IF	Citations
146	Microrobots in the Gastrointestinal Tract 2022 , 349-367		0
145	Multimodal Sensing Integrated Health- Monitoring System 2022 , 159-192		
144	Progress and Perspectives 2022 , 193-198		
143	Fully Integrated Self-powered Sweat-Sensing Platform 2022 , 127-158		
142	Sandwiched Self-charging Power Unit 2022 , 77-99		0
141	Core Units of Smart Micro-systems 2022 , 39-75		
140	Wearable chemosensors 2022 , 219-234		
139	All-in-one Self-driven Monitor Patch 2022 , 101-126		
138	Wearable Bioelectronics for Chronic Wound Management (Adv. Funct. Mater. 17/2022). <i>Advanced Functional Materials</i> , 2022 , 32, 2270099	15.6	
137	Integrating Highly Porous and Flexible Au Hydrogels with Soft-MEMS Technologies for High-Performance Wearable Biosensing. <i>Analytical Chemistry</i> , 2021 , 93, 14068-14075	7.8	9
136	Electrical impedance tomography for non-invasive identification of fatty liver infiltrate in overweight individuals. <i>Scientific Reports</i> , 2021 , 11, 19859	4.9	2
135	Restoring Exhibits Therapeutic Potential for Ameliorating Malignant Progression and 5-Fluorouracil Resistance in Colorectal Cancer. <i>Frontiers in Oncology</i> , 2021 , 11, 771528	5.3	0
134	A Biofuel-Cell-Based Energy Harvester With 86% Peak Efficiency and 0.25-V Minimum Input Voltage Using Source-Adaptive MPPT. <i>IEEE Journal of Solid-State Circuits</i> , 2021 , 56, 715-728	5.5	8
133	Ethical Considerations of Wearable Technologies in Human Research. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2100127	10.1	5
132	Self-synergistic effect of Prussian blue nanoparticles for cancer therapy: driving photothermal therapy and reducing hyperthermia-induced side effects. <i>Journal of Nanobiotechnology</i> , 2021 , 19, 126	9.4	9
131	Wearable electrochemical biosensors in North America. <i>Biosensors and Bioelectronics</i> , 2021 , 172, 112750	11.8	76
130	Effective suppression of mode distortion induced by stimulated Raman scattering in high-power fiber amplifiers. <i>High Power Laser Science and Engineering</i> , 2021 , 9,	4.3	2

129	Prussian blue nanozyme-mediated nanoscavenger ameliorates acute pancreatitis via inhibiting TLRs/NF- κ B signaling pathway. <i>Theranostics</i> , 2021 , 11, 3213-3228	12.1	17
128	Self-Powered Wearable Biosensors. <i>Accounts of Materials Research</i> , 2021 , 2, 184-197	7.5	42
127	Excavating bioactivities of nanozyme to remodel microenvironment for protecting chondrocytes and delaying osteoarthritis. <i>Bioactive Materials</i> , 2021 , 6, 2439-2451	16.7	10
126	A soft bioaffinity sensor array for chronic wound monitoring. <i>Matter</i> , 2021 , 4, 2613-2615	12.7	3
125	Laser-engraved graphene for flexible and wearable electronics. <i>Trends in Chemistry</i> , 2021 ,	14.8	2
124	Flexible Electronics and Devices as Human-Machine Interfaces for Medical Robotics.. <i>Advanced Materials</i> , 2021 , e2107902	24	26
123	Emerging Telemedicine Tools for Remote COVID-19 Diagnosis, Monitoring, and Management. <i>ACS Nano</i> , 2020 , 14, 16180-16193	16.7	43
122	Skin-interfaced sensors in digital medicine: from materials to applications. <i>Matter</i> , 2020 , 2, 1414-1445	12.7	68
121	Medical micro/nanorobots in complex media. <i>Chemical Society Reviews</i> , 2020 , 49, 8088-8112	58.5	75
120	Investigation of cortisol dynamics in human sweat using a graphene-based wireless mHealth system. <i>Matter</i> , 2020 , 2, 921-937	12.7	137
119	Biofuel-powered soft electronic skin with multiplexed and wireless sensing for human-machine interfaces. <i>Science Robotics</i> , 2020 , 5,	18.6	204
118	The Era of Digital Health: A Review of Portable and Wearable Affinity Biosensors. <i>Advanced Functional Materials</i> , 2020 , 30, 1906713	15.6	97
117	Robotics in the Gut. <i>Advanced Therapeutics</i> , 2020 , 3, 1900125	4.9	25
116	A laser-engraved wearable sensor for sensitive detection of uric acid and tyrosine in sweat. <i>Nature Biotechnology</i> , 2020 , 38, 217-224	44.5	338
115	Wireless battery-free wearable sweat sensor powered by human motion. <i>Science Advances</i> , 2020 , 6,	14.3	171
114	SARS-CoV-2 RapidPlex: A Graphene-Based Multiplexed Telemedicine Platform for Rapid and Low-Cost COVID-19 Diagnosis and Monitoring. <i>Matter</i> , 2020 , 3, 1981-1998	12.7	171
113	Bioaffinity Sensors: The Era of Digital Health: A Review of Portable and Wearable Affinity Biosensors (Adv. Funct. Mater. 29/2020). <i>Advanced Functional Materials</i> , 2020 , 30, 2070197	15.6	
112	Spray-on magnetic skin for robotic actuation. <i>Science Robotics</i> , 2020 , 5,	18.6	1

111	Hollow Magnetic Nanocatalysts Drive Starvation-Chemodynamic-Hyperthermia Synergistic Therapy for Tumor. <i>ACS Nano</i> , 2020 , 14, 9662-9674	16.7	41
110	Wearable Flexible Strain Sensor Based on Three-Dimensional Wavy Laser-Induced Graphene and Silicone Rubber. <i>Sensors</i> , 2020 , 20,	3.8	18
109	Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis. <i>Advanced Materials</i> , 2020 , 32, e1902083	24	128
108	Flexible Electronics: Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis (Adv. Mater. 15/2020). <i>Advanced Materials</i> , 2020 , 32, 2070115	24	4
107	Coherent Energy and Charge Transport Processes in Oligothiophene Dendrimers Probed in Solution and in the Solid State with Time-Resolved Spectroscopy and Microscopy Methods. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 23419-23426	3.8	3
106	Glucose-Fueled Micromotors with Highly Efficient Visible-Light Photocatalytic Propulsion. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 6201-6207	9.5	54
105	Nanozyme-mediated catalytic nanotherapy for inflammatory bowel disease. <i>Theranostics</i> , 2019 , 9, 2843-2855	28.55	61
104	Physical and Chemical Sensing With Electronic Skin. <i>Proceedings of the IEEE</i> , 2019 , 107, 2155-2167	14.3	37
103	Hollow Prussian Blue Nanozymes Drive Neuroprotection against Ischemic Stroke via Attenuating Oxidative Stress, Counteracting Inflammation, and Suppressing Cell Apoptosis. <i>Nano Letters</i> , 2019 , 19, 2812-2823	11.5	102
102	Flexible and Superwetable Bands as a Platform toward Sweat Sampling and Sensing. <i>Analytical Chemistry</i> , 2019 , 91, 4296-4300	7.8	76
101	Macroscale Chemotaxis from a Swarm of Bacteria-Mimicking Nanoswimmers. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 12200-12205	16.4	59
100	Macroscale Chemotaxis from a Swarm of Bacteria-Mimicking Nanoswimmers. <i>Angewandte Chemie</i> , 2019 , 131, 12328-12333	3.6	13
99	A microrobotic system guided by photoacoustic computed tomography for targeted navigation in intestines. <i>Science Robotics</i> , 2019 , 4,	18.6	186
98	Flexible Electronics toward Wearable Sensing. <i>Accounts of Chemical Research</i> , 2019 , 52, 523-533	24.3	378
97	Wearable and Implantable Electronics: Moving toward Precision Therapy. <i>ACS Nano</i> , 2019 , 13, 12280-12286	28.67	83
96	An intelligent data-driven model for disease diagnosis based on machine learning theory. <i>Journal of Combinatorial Optimization</i> , 2019 , 1	0.9	2
95	Wearable and flexible electronics for continuous molecular monitoring. <i>Chemical Society Reviews</i> , 2019 , 48, 1465-1491	58.5	551
94	Large-scale synthesis of monodisperse Prussian blue nanoparticles for cancer theranostics via an "in situ modification" strategy. <i>International Journal of Nanomedicine</i> , 2019 , 14, 271-288	7.3	14

93	Methylxanthine Drug Monitoring with Wearable Sweat Sensors. <i>Advanced Materials</i> , 2018 , 30, e170744224		159
92	Micromotors Go In Vivo: From Test Tubes to Live Animals. <i>Advanced Functional Materials</i> , 2018 , 28, 1705640		86
91	Superwetable Electrochemical Biosensor toward Detection of Cancer Biomarkers. <i>ACS Sensors</i> , 2018 , 3, 72-78	9.2	56
90	Wearable physiological systems and technologies for metabolic monitoring. <i>Journal of Applied Physiology</i> , 2018 , 124, 548-556	3.7	39
89	Prussian Blue Nanozyme with Multienzyme Activity Reduces Colitis in Mice. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 26108-26117	9.5	77
88	A Wearable Microfluidic Sensing Patch for Dynamic Sweat Secretion Analysis. <i>ACS Sensors</i> , 2018 , 3, 944-952		183
87	Roll-to-Roll Gravure Printed Electrochemical Sensors for Wearable and Medical Devices. <i>ACS Nano</i> , 2018 , 12, 6978-6987	16.7	163
86	A nanozyme tag enabled chemiluminescence imaging immunoassay for multiplexed cytokine monitoring. <i>Chemical Communications</i> , 2018 , 54, 13813-13816	5.8	43
85	Flexible Superwetable Tapes for On-Site Detection of Heavy Metals. <i>Analytical Chemistry</i> , 2018 , 90, 14105-14110	7.8	36
84	Photocatalytic Micro/Nanomotors: From Construction to Applications. <i>Accounts of Chemical Research</i> , 2018 , 51, 1940-1947	24.3	99
83	Visible-Light-Driven BiOI-Based Janus Micromotor in Pure Water. <i>Journal of the American Chemical Society</i> , 2017 , 139, 1722-1725	16.4	222
82	Peripherally diketopyrrolopyrrole-functionalized dendritic oligothiophenes: Synthesis, molecular structure, properties and applications. <i>Polymer Chemistry</i> , 2017 , 8, 1460-1476	4.9	7
81	Light-Driven Au-WO ₃ @C Janus Micromotors for Rapid Photodegradation of Dye Pollutants. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 4674-4683	9.5	149
80	Micro/Nanorobots for Biomedicine: Delivery, Surgery, Sensing, and Detoxification. <i>Science Robotics</i> , 2017 , 2,	18.6	695
79	Autonomous sweat extraction and analysis applied to cystic fibrosis and glucose monitoring using a fully integrated wearable platform. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 4625-4630	11.5	404
78	A sequence of 28S rRNA-derived small RNAs is enriched in mature sperm and various somatic tissues and possibly associates with inflammation. <i>Journal of Molecular Cell Biology</i> , 2017 , 9, 256-259	6.3	30
77	Materials, Devices and Systems of Soft Bioelectronics for Precision Therapy. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1700017	10.1	25
76	Fuel-Free Synthetic Micro-/Nanomachines. <i>Advanced Materials</i> , 2017 , 29, 1603250	24	235

75	Tuning the optical and electrochemical properties of conjugated all-thiophene dendrimers via core functionalization with a benzothiadiazole unit. <i>RSC Advances</i> , 2017 , 7, 1606-1616	3.7	3
74	Selective Dispersion of Large-Diameter Semiconducting Carbon Nanotubes by Functionalized Conjugated Dendritic Oligothiophenes for Use in Printed Thin Film Transistors. <i>Advanced Functional Materials</i> , 2017 , 27, 1703938	15.6	17
73	3D Printed "Earable" Smart Devices for Real-Time Detection of Core Body Temperature. <i>ACS Sensors</i> , 2017 , 2, 990-997	9.2	69
72	Microfluidic Lithography of Bioinspired Helical Micromotors. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 12127-12131	16.4	88
71	Microfluidic Lithography of Bioinspired Helical Micromotors. <i>Angewandte Chemie</i> , 2017 , 129, 12295-12296	9.6	27
70	Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring. <i>Advanced Materials</i> , 2017 , 29, 1701985	24	254
69	Emulsion Hydrogel Soft Motor Actuated by Thermal Stimulation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43211-43219	9.5	14
68	Inhibition of Toll-Like Receptor Signaling as a Promising Therapy for Inflammatory Diseases: A Journey from Molecular to Nano Therapeutics. <i>Frontiers in Physiology</i> , 2017 , 8, 508	4.6	181
67	Correlation of the π -conjugation chain length and the property and photovoltaic performance of benzo[1,2-b:4,5-b']dithiophene-cored A-ED-BA type molecules. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 157, 831-843	6.4	4
66	Printed Carbon Nanotube Electronics and Sensor Systems. <i>Advanced Materials</i> , 2016 , 28, 4397-414	24	284
65	General Thermal Texturization Process of MoS ₂ for Efficient Electrocatalytic Hydrogen Evolution Reaction. <i>Nano Letters</i> , 2016 , 16, 4047-53	11.5	84
64	Printed thin film transistors and CMOS inverters based on semiconducting carbon nanotube ink purified by a nonlinear conjugated copolymer. <i>Nanoscale</i> , 2016 , 8, 4588-98	7.7	40
63	Fully integrated wearable sensor arrays for multiplexed in situ perspiration analysis. <i>Nature</i> , 2016 , 529, 509-514	50.4	2526
62	Diagnostic accuracy of sub-mSv prospective ECG-triggering cardiac CT in young infant with complex congenital heart disease. <i>International Journal of Cardiovascular Imaging</i> , 2016 , 32, 991-8	2.5	19
61	Highly Efficient Light-Driven TiO ₂ -Au Janus Micromotors. <i>ACS Nano</i> , 2016 , 10, 839-44	16.7	299
60	Carbon Nanotubes: Printed Carbon Nanotube Electronics and Sensor Systems (Adv. Mater. 22/2016). <i>Advanced Materials</i> , 2016 , 28, 4396	24	7
59	Superfast Near-Infrared Light-Driven Polymer Multilayer Rockets. <i>Small</i> , 2016 , 12, 577-82	11	126
58	A Wearable Electrochemical Platform for Noninvasive Simultaneous Monitoring of Ca(2+) and pH. <i>ACS Nano</i> , 2016 , 10, 7216-24	16.7	324

57	Wearable sweat biosensors 2016 ,		12
56	Quantitative assessment of the influence of X-ray repair cross-complementing group 3 rs861539 polymorphism and cutaneous melanoma susceptibility. <i>Archives of Dermatological Research</i> , 2016 , 308, 173-81	3.3	
55	Wearable Microsensor Array for Multiplexed Heavy Metal Monitoring of Body Fluids. <i>ACS Sensors</i> , 2016 , 1, 866-874	9.2	216
54	Application of 3D Printing for Smart Objects with Embedded Electronic Sensors and Systems. <i>Advanced Materials Technologies</i> , 2016 , 1, 1600013	6.8	124
53	Microengine-assisted electrochemical measurements at printable sensor strips. <i>Chemical Communications</i> , 2015 , 51, 8668-71	5.8	43
52	Motion-based threat detection using microrods: experiments and numerical simulations. <i>Nanoscale</i> , 2015 , 7, 7833-40	7.7	24
51	Self-propelled activated carbon Janus micromotors for efficient water purification. <i>Small</i> , 2015 , 11, 499-506	5.0	219
50	3D-Printed Artificial Microfish. <i>Advanced Materials</i> , 2015 , 27, 4411-4417	2.4	198
49	Vapor-Driven Propulsion of Catalytic Micromotors. <i>Scientific Reports</i> , 2015 , 5, 13226	4.9	36
48	Cell-Membrane-Coated Synthetic Nanomotors for Effective Biotoxification. <i>Advanced Functional Materials</i> , 2015 , 25, 3881-3887	15.6	173
47	Highly sensitive and robust peroxidase-like activity of porous nanorods of ceria and their application for breast cancer detection. <i>Biomaterials</i> , 2015 , 59, 116-24	15.6	173
46	Reversible swarming and separation of self-propelled chemically powered nanomotors under acoustic fields. <i>Journal of the American Chemical Society</i> , 2015 , 137, 2163-6	16.4	191
45	Artificial micromotors in the mouse's stomach: a step toward in vivo use of synthetic motors. <i>ACS Nano</i> , 2015 , 9, 117-23	16.7	339
44	Downregulation of long noncoding RNA ZMAT1 transcript variant 2 predicts a poor prognosis in patients with gastric cancer. <i>International Journal of Clinical and Experimental Pathology</i> , 2015 , 8, 5556-62	1.4	9
43	The environmental impact of micro/nanomachines: a review. <i>ACS Nano</i> , 2014 , 8, 3170-80	16.7	430
42	Bioinspired helical microswimmers based on vascular plants. <i>Nano Letters</i> , 2014 , 14, 305-10	11.5	253
41	Fully loaded micromotors for combinatorial delivery and autonomous release of cargoes. <i>Small</i> , 2014 , 10, 2830-3, 2743	11	68
40	Bubble-propelled micromotors for enhanced transport of passive tracers. <i>Langmuir</i> , 2014 , 30, 5082-7	4	121

39	Catalytic iridium-based Janus micromotors powered by ultralow levels of chemical fuels. <i>Journal of the American Chemical Society</i> , 2014 , 136, 2276-9	16.4	239
38	Nanomotor lithography. <i>Nature Communications</i> , 2014 , 5, 5026	17.4	112
37	Synthetic micro/nanomotors in drug delivery. <i>Nanoscale</i> , 2014 , 6, 10486-94	7.7	317
36	Ultrasound-modulated bubble propulsion of chemically powered microengines. <i>Journal of the American Chemical Society</i> , 2014 , 136, 8552-5	16.4	142
35	Template electrosynthesis of tailored-made helical nanoswimmers. <i>Nanoscale</i> , 2014 , 6, 9415-20	7.7	107
34	Water-driven micromotors for rapid photocatalytic degradation of biological and chemical warfare agents. <i>ACS Nano</i> , 2014 , 8, 11118-25	16.7	242
33	Turning erythrocytes into functional micromotors. <i>ACS Nano</i> , 2014 , 8, 12041-8	16.7	180
32	Self-propelled chemically-powered plant-tissue biomotors. <i>Chemical Communications</i> , 2013 , 49, 7307-9	5.8	21
31	Molecularly imprinted polymer-based catalytic micromotors for selective protein transport. <i>Journal of the American Chemical Society</i> , 2013 , 135, 5336-9	16.4	178
30	Functionalized ultrasound-propelled magnetically guided nanomotors: toward practical biomedical applications. <i>ACS Nano</i> , 2013 , 7, 9232-40	16.7	299
29	Toward in vivo detection of hydrogen peroxide with ultrasound molecular imaging. <i>Biomaterials</i> , 2013 , 34, 8918-24	15.6	72
28	Efficient bubble propulsion of polymer-based microengines in real-life environments. <i>Nanoscale</i> , 2013 , 5, 8909-14	7.7	47
27	Artificial enzyme-powered microfish for water-quality testing. <i>ACS Nano</i> , 2013 , 7, 818-24	16.7	193
26	Organized self-assembly of Janus micromotors with hydrophobic hemispheres. <i>Journal of the American Chemical Society</i> , 2013 , 135, 998-1001	16.4	164
25	Micromotor-based lab-on-chip immunoassays. <i>Nanoscale</i> , 2013 , 5, 1325-31	7.7	128
24	Nanomotor-based biocatalytic patterning of helical metal microstructures. <i>Nanoscale</i> , 2013 , 5, 1310-4	7.7	31
23	Multi-fuel driven Janus micromotors. <i>Small</i> , 2013 , 9, 467-71	11	162
22	Dry-released nanotubes and nanoengines by particle-assisted rolling. <i>Advanced Materials</i> , 2013 , 25, 3715-21	11	71

21	Seawater-driven magnesium based Janus micromotors for environmental remediation. <i>Nanoscale</i> , 2013 , 5, 4696-700	7.7	283
20	Self-propelled carbohydrate-sensitive microtransporters with built-in boronic acid recognition for isolating sugars and cells. <i>Journal of the American Chemical Society</i> , 2012 , 134, 15217-20	16.4	115
19	Superhydrophobic alkanethiol-coated microsubmarines for effective removal of oil. <i>ACS Nano</i> , 2012 , 6, 4445-51	16.7	328
18	Nano/Microscale motors: biomedical opportunities and challenges. <i>ACS Nano</i> , 2012 , 6, 5745-51	16.7	497
17	Water-driven micromotors. <i>ACS Nano</i> , 2012 , 6, 8432-8	16.7	264
16	Bacterial isolation by lectin-modified microengines. <i>Nano Letters</i> , 2012 , 12, 396-401	11.5	258
15	Polymer-based tubular microbots: role of composition and preparation. <i>Nanoscale</i> , 2012 , 4, 2447-53	7.7	124
14	Cargo-towing fuel-free magnetic nanoswimmers for targeted drug delivery. <i>Small</i> , 2012 , 8, 460-7	11	326
13	Catalytically propelled micro-/nanomotors: how fast can they move?. <i>Chemical Record</i> , 2012 , 12, 224-31	6.6	91
12	Hydrogen-bubble-propelled zinc-based microrockets in strongly acidic media. <i>Journal of the American Chemical Society</i> , 2012 , 134, 897-900	16.4	283
11	Dynamic isolation and unloading of target proteins by aptamer-modified microtransporters. <i>Analytical Chemistry</i> , 2011 , 83, 7962-9	7.8	107
10	High-speed propulsion of flexible nanowire motors: Theory and experiments. <i>Soft Matter</i> , 2011 , 7, 8169	3.6	164
9	Highly efficient catalytic microengines: template electrosynthesis of polyaniline/platinum microtubes. <i>Journal of the American Chemical Society</i> , 2011 , 133, 11862-4	16.4	437
8	Over-exposure image correction with automatic texture synthesis 2011 ,		2
7	Direct laser writing of micro-supercapacitors on hydrated graphite oxide films. <i>Nature Nanotechnology</i> , 2011 , 6, 496-500	28.7	1161
6	Hybrid nanomotor: a catalytically/magnetically powered adaptive nanowire swimmer. <i>Small</i> , 2011 , 7, 2047-51	11	109
5	Magnetically powered flexible metal nanowire motors. <i>Journal of the American Chemical Society</i> , 2010 , 132, 14403-5	16.4	307
4	Simplified cost-effective preparation of high-performance Ag-Pt nanowire motors. <i>ChemPhysChem</i> , 2010 , 11, 2802-5	3.2	21

3	3D Porous Graphene Films with Large-Area In-Plane Exterior Skins. <i>Advanced Materials Interfaces</i> ,21019386	186	0
2	Wearable Bioelectronics for Chronic Wound Management. <i>Advanced Functional Materials</i> ,2111022	15.6	19
1	Magnetically Actuated Reactive Oxygen Species Scavenging Nano-Robots for Targeted Treatment. <i>Advanced Intelligent Systems</i> ,2200061	6	1