

Gang Liu

List of Publications by Year in descending order

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120
papers

7,688
citations

46984

47
h-index

54882

84
g-index

120
all docs

120
docs citations

120
times ranked

10233
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of the Gut Microbiota on Intestinal Immunity Mediated by Tryptophan Metabolism. <i>Frontiers in Cellular and Infection Microbiology</i> , 2018, 8, 13.	1.8	770
2	Conjugated Polymer-Functionalized Graphene Oxide: Synthesis and Nonvolatile Rewritable Memory Effect. <i>Advanced Materials</i> , 2010, 22, 1731-1735.	11.1	400
3	Organic and hybrid resistive switching materials and devices. <i>Chemical Society Reviews</i> , 2019, 48, 1531-1565.	18.7	291
4	Graphene and its derivatives: switching ON and OFF. <i>Chemical Society Reviews</i> , 2012, 41, 4688.	18.7	257
5	An Oxide Schottky Junction Artificial Optoelectronic Synapse. <i>ACS Nano</i> , 2019, 13, 2634-2642.	7.3	237
6	Polymer memristor for information storage and neuromorphic applications. <i>Materials Horizons</i> , 2014, 1, 489.	6.4	209
7	Photoresponsive Poly(S-(<i>o</i> -nitrobenzyl)-cysteine)-b-PEO from a Cysteine <i>N</i> -Carboxyanhydride Monomer: Synthesis, Self-Assembly, and Phototriggered Drug Release. <i>Biomacromolecules</i> , 2012, 13, 1573-1583.	2.6	204
8	A skin-inspired tactile sensor for smart prosthetics. <i>Science Robotics</i> , 2018, 3, .	9.9	195
9	The weight of unfinished plate: A survey based characterization of restaurant food waste in Chinese cities. <i>Waste Management</i> , 2017, 66, 3-12.	3.7	192
10	Impact of biochar application on nitrogen nutrition of rice, greenhouse-gas emissions and soil organic carbon dynamics in two paddy soils of China. <i>Plant and Soil</i> , 2013, 370, 527-540.	1.8	187
11	Organic Biomimicking Memristor for Information Storage and Processing Applications. <i>Advanced Electronic Materials</i> , 2016, 2, 1500298.	2.6	181
12	Electrical Conductance Tuning and Bistable Switching in Poly(N-vinylcarbazole)~Carbon Nanotube Composite Films. <i>ACS Nano</i> , 2009, 3, 1929-1937.	7.3	180
13	UV- and NIR-responsive polymeric nanomedicines for on-demand drug delivery. <i>Polymer Chemistry</i> , 2013, 4, 3431.	1.9	176
14	Thermally Stable Transparent Resistive Random Access Memory based on Al~Oxide Heterostructures. <i>Advanced Functional Materials</i> , 2014, 24, 2171-2179.	7.8	150
15	Gut Microbiota and Type 1 Diabetes. <i>International Journal of Molecular Sciences</i> , 2018, 19, 995.	1.8	148
16	A Multilevel Memory Based on Proton-Doped Polyazomethine with an Excellent Uniformity in Resistive Switching. <i>Journal of the American Chemical Society</i> , 2012, 134, 17408-17411.	6.6	136
17	Metal~Organic Framework Nanofilm for Mechanically Flexible Information Storage Applications. <i>Advanced Functional Materials</i> , 2015, 25, 2677-2685.	7.8	133
18	Melatonin alleviates weanling stress in mice: Involvement of intestinal microbiota. <i>Journal of Pineal Research</i> , 2018, 64, e12448.	3.4	133

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19	Organo- and Water-Dispersible Graphene Oxide~Polymer Nanosheets for Organic Electronic Memory and Gold Nanocomposites. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12742-12748.	1.5	131
20	Bistable electrical switching and electronic memory effect in a solution-processable graphene oxide-donor polymer complex. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	118
21	Preparation and Memory Performance of a Nanoaggregated Dispersed Red 1~Functionalized Poly (N-vinylcarbazole) Film via Solution~Phase Self~Assembly. <i>Advanced Functional Materials</i> , 2010, 20, 2916-2922.	7.8	112
22	Flavonoids and type 2 diabetes: Evidence of efficacy in clinical and animal studies and delivery strategies to enhance their therapeutic efficacy. <i>Pharmacological Research</i> , 2020, 152, 104629.	3.1	112
23	Highly flexible resistive switching memory based on amorphous-nanocrystalline hafnium oxide films. <i>Nanoscale</i> , 2017, 9, 7037-7046.	2.8	109
24	A Resistance-Switchable and Ferroelectric Metal~Organic Framework. <i>Journal of the American Chemical Society</i> , 2014, 136, 17477-17483.	6.6	103
25	Redox gated polymer memristive processing memory unit. <i>Nature Communications</i> , 2019, 10, 736.	5.8	99
26	Printable Liquid~Metal@PDMS Stretchable Heater with High Stretchability and Dynamic Stability for Wearable Thermotherapy. <i>Advanced Materials Technologies</i> , 2019, 4, 1800435.	3.0	92
27	Poly(N-vinylcarbazole) chemically modified graphene oxide. <i>Journal of Polymer Science Part A</i> , 2010, 48, 2642-2649.	2.5	88
28	90% yield production of polymer nano-memristor for in-memory computing. <i>Nature Communications</i> , 2021, 12, 1984.	5.8	87
29	Organic Memory and Memristors: From Mechanisms, Materials to Devices. <i>Advanced Electronic Materials</i> , 2021, 7, 2100432.	2.6	81
30	A 1D Vanadium Dioxide Nanochannel Constructed via Electric~Field~Induced Ion Transport and its Superior Metal~Insulator Transition. <i>Advanced Materials</i> , 2017, 29, 1702162.	11.1	79
31	Push~Pull archetype of reduced graphene oxide functionalized with polyfluorene for nonvolatile rewritable memory. <i>Journal of Polymer Science Part A</i> , 2012, 50, 378-387.	2.5	71
32	Convertible resistive switching characteristics between memory switching and threshold switching in a single ferritin-based memristor. <i>Chemical Communications</i> , 2016, 52, 4828-4831.	2.2	71
33	An electro-photo-sensitive synaptic transistor for edge neuromorphic visual systems. <i>Nanoscale</i> , 2019, 11, 17590-17599.	2.8	71
34	Intestinal Microbiota-Derived GABA Mediates Interleukin-17 Expression during Enterotoxigenic <i>Escherichia coli</i> Infection. <i>Frontiers in Immunology</i> , 2016, 7, 685.	2.2	70
35	Thermally-stable resistive switching with a large ON/OFF ratio achieved in poly(triphenylamine). <i>Chemical Communications</i> , 2014, 50, 11856-11858.	2.2	69
36	Improving Unipolar Resistive Switching Uniformity with Cone-Shaped Conducting Filaments and Its Logic-In-Memory Application. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6453-6462.	4.0	68

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37	Effects of Chitosan on Intestinal Inflammation in Weaned Pigs Challenged by Enterotoxigenic <i>Escherichia coli</i> . <i>PLoS ONE</i> , 2014, 9, e104192.	1.1	65
38	Multi-Responsive Polypeptidosome: Characterization, Morphology Transformation, and Triggered Drug Delivery. <i>Macromolecular Rapid Communications</i> , 2014, 35, 1673-1678.	2.0	62
39	Synaptic plasticity and learning behaviours in flexible artificial synapse based on polymer/viologen system. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3217-3223.	2.7	61
40	Developmental changes in intercellular junctions and Kv channels in the intestine of piglets during the suckling and post-weaning periods. <i>Journal of Animal Science and Biotechnology</i> , 2016, 7, 4.	2.1	57
41	Mechano-regulated metal-organic framework nanofilm for ultrasensitive and anti-jamming strain sensing. <i>Nature Communications</i> , 2018, 9, 3813.	5.8	57
42	A Composite Elastic Conductor with High Dynamic Stability Based on 3D Calabash Bunch Conductive Network Structure for Wearable Devices. <i>Advanced Electronic Materials</i> , 2018, 4, 1800137.	2.6	57
43	Role of oxadiazole moiety in different polyazothines and related resistive switching properties. <i>Journal of Materials Chemistry C</i> , 2013, 1, 4556.	2.7	56
44	In Situ Synthesis and Nonvolatile Rewritable Memory Effect of Polyaniline-Functionalized Graphene Oxide. <i>Chemistry - A European Journal</i> , 2013, 19, 6265-6273.	1.7	55
45	Intrinsically Stretchable Resistive Switching Memory Enabled by Combining a Liquid Metal-Based Soft Electrode and a Metal-Organic Framework Insulator. <i>Advanced Electronic Materials</i> , 2019, 5, 1800655.	2.6	53
46	In Situ Nanoscale Electric Field Control of Magnetism by Nanoionics. <i>Advanced Materials</i> , 2016, 28, 7658-7665.	11.1	52
47	An organic terpyridyl-iron polymer based memristor for synaptic plasticity and learning behavior simulation. <i>RSC Advances</i> , 2016, 6, 25179-25184.	1.7	48
48	Linear dendritic biodegradable block copolymers: from synthesis to application in bionanotechnology. <i>Polymer Chemistry</i> , 2013, 4, 46-52.	1.9	46
49	Recent Advances of Quantum Conductance in Memristors. <i>Advanced Electronic Materials</i> , 2019, 5, 1800854.	2.6	44
50	Switchable Perovskite Photovoltaic Sensors for Bioinspired Adaptive Machine Vision. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000122.	3.3	44
51	Structural effect on the resistive switching behavior of triphenylamine-based poly(azomethine)s. <i>Chemical Communications</i> , 2014, 50, 11496-11499.	2.2	42
52	An NIR-responsive and sugar-targeted polypeptide composite nanomedicine for intracellular cancer therapy. <i>Chemical Communications</i> , 2014, 50, 12538-12541.	2.2	41
53	The Tryptophan Pathway Targeting Antioxidant Capacity in the Placenta. <i>Oxidative Medicine and Cellular Longevity</i> , 2018, 2018, 1-8.	1.9	41
54	A review of the immunomodulatory role of dietary tryptophan in livestock and poultry. <i>Amino Acids</i> , 2017, 49, 67-74.	1.2	40

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55	Electrical Bistability and WORM Memory Effects in Donor-acceptor Polymers Based on Poly(<i>N</i> -vinylcarbazole). <i>ChemPlusChem</i> , 2012, 77, 74-81.	1.3	37
56	Layer-dependent ferroelectricity in 2H-stacked few-layer In_2Se_3 . <i>Materials Horizons</i> , 2021, 8, 1472-1480.	6.4	37
57	NIR-responsive polypeptide copolymer upconversion composite nanoparticles for triggered drug release and enhanced cytotoxicity. <i>Polymer Chemistry</i> , 2015, 6, 4030-4039.	1.9	35
58	Assessing the transition effects in a drinking water distribution system caused by changing supply water quality: an indirect approach by characterizing suspended solids. <i>Water Research</i> , 2020, 168, 115159.	5.3	35
59	Positive temperature coefficient of magnetic anisotropy in polyvinylidene fluoride (PVDF)-based magnetic composites. <i>Scientific Reports</i> , 2014, 4, 6615.	1.6	34
60	Hyperhomocysteinemia and cardiovascular disease in animal model. <i>Amino Acids</i> , 2018, 50, 3-9.	1.2	34
61	The effect of aspartate supplementation on the microbial composition and innate immunity on mice. <i>Amino Acids</i> , 2017, 49, 2045-2051.	1.2	32
62	Controllable and Stable Quantized Conductance States in a Pt/HfO _x /ITO Memristor. <i>Advanced Electronic Materials</i> , 2020, 6, 1901055.	2.6	31
63	Synthesis and nonvolatile memristive switching effect of a donor-acceptor structured oligomer. <i>Journal of Materials Chemistry C</i> , 2015, 3, 664-673.	2.7	29
64	Exploring possible associations of the intestine bacterial microbiome with the pre-weaned weight gaining performance of piglets in intensive pig production. <i>Scientific Reports</i> , 2019, 9, 15534.	1.6	27
65	Sulfur-containing amino acid supplementation to gilts from late pregnancy to lactation altered offspring's intestinal microbiota and plasma metabolites. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 1227-1242.	1.7	27
66	Proteome analysis for the global proteins in the jejunum tissues of enterotoxigenic <i>Escherichia coli</i> -infected piglets. <i>Scientific Reports</i> , 2016, 6, 25640.	1.6	26
67	<i>l</i> -Glutamine Attenuates Apoptosis Induced by Endoplasmic Reticulum Stress by Activating the IRE1-XBP1 Axis in IPEC-J2: A Novel Mechanism of <i>l</i> -Glutamine in Promoting Intestinal Health. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2617.	1.8	25
68	Controlled Construction of Atomic Point Contact with 16 Quantized Conductance States in Oxide Resistive Switching Memory. <i>ACS Applied Electronic Materials</i> , 2019, 1, 789-798.	2.0	25
69	Tristable electrical conductivity switching in a polyfluorene-diphenylpyridine copolymer with pendant carbazole groups. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 4203-4214.	1.6	23
70	Architecture of modified silica resin coatings with various micro/nano patterns for fouling resistance: microstructure and antifouling performance. <i>RSC Advances</i> , 2015, 5, 97862-97873.	1.7	23
71	Compositional alterations in soil bacterial communities exposed to TiO ₂ nanoparticles are not reflected in functional impacts. <i>Environmental Research</i> , 2019, 178, 108713.	3.7	22
72	Resistance-Switchable Graphene Oxide-Polymer Nanocomposites for Molecular Electronics. <i>ChemElectroChem</i> , 2014, 1, 514-519.	1.7	21

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73	Pyrrolidine Dithiocarbamate (PDTC) Inhibits DON-Induced Mitochondrial Dysfunction and Apoptosis via the NF- κ B/iNOS Pathway. <i>Oxidative Medicine and Cellular Longevity</i> , 2018, 2018, 1-8.	1.9	21
74	Effect of dietary α -ketoglutarate and allicin supplementation on the composition and diversity of the cecal microbial community in growing pigs. <i>Journal of the Science of Food and Agriculture</i> , 2018, 98, 5816-5821.	1.7	18
75	Enabling superior stretchable resistive switching memory via polymer-functionalized graphene oxide nanosheets. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14664-14671.	2.7	18
76	Melatonin alters amino acid metabolism and inflammatory responses in colitis mice. <i>Amino Acids</i> , 2017, 49, 2065-2071.	1.2	17
77	Study of synergistic effect of cellulose on the enhancement of photocatalytic activity of ZnO. <i>Journal of Materials Science</i> , 2017, 52, 8472-8484.	1.7	16
78	Escherichia coli aggravates endoplasmic reticulum stress and triggers CHOP-dependent apoptosis in weaned pigs. <i>Amino Acids</i> , 2017, 49, 2073-2082.	1.2	16
79	Retinomorph opticoelectronic devices for intelligent machine vision. <i>IScience</i> , 2022, 25, 103729.	1.9	16
80	A region-based image fusion algorithm using multiresolution segmentation. , 0, , .		15
81	Structural effect on controllable resistive memory switching in donor-acceptor polymer systems. <i>Organic Electronics</i> , 2014, 15, 322-336.	1.4	15
82	Implementation of All 27 Possible Univariate Ternary Logics With a Single ZnO Memristor. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 4710-4715.	1.6	15
83	Conjugated polymers for information storage and neuromorphic computing. <i>Polymer International</i> , 2021, 70, 374-403.	1.6	15
84	Changes in biofilm composition and microbial water quality in drinking water distribution systems by temperature increase induced through thermal energy recovery. <i>Environmental Research</i> , 2021, 194, 110648.	3.7	14
85	DNA Methylation and the Potential Role of Methyl-Containing Nutrients in Cardiovascular Diseases. <i>Oxidative Medicine and Cellular Longevity</i> , 2017, 2017, 1-7.	1.9	13
86	Impact of Nutritional and Environmental Factors on Inflammation, Oxidative Stress, and the Microbiome. <i>BioMed Research International</i> , 2018, 2018, 1-3.	0.9	13
87	Mapping the EU tomato supply chain from farm to fork for greenhouse gas emission mitigation strategies. <i>Journal of Industrial Ecology</i> , 2021, 25, 377-389.	2.8	13
88	Tribological Properties of WC-Reinforced Ni-Based Coatings Under Different Lubricating Conditions. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 1323-1332.	1.6	12
89	Thermally assisted electric field control of magnetism in flexible multiferroic heterostructures. <i>Scientific Reports</i> , 2015, 4, 6925.	1.6	12
90	Impact of Nutritional and Environmental Factors on Inflammation, Oxidative Stress, and the Microbiome 2019. <i>BioMed Research International</i> , 2019, 2019, 1-5.	0.9	11

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91	Anti-oxidative passivation and electrochemical activation of black phosphorus <i>via</i> covalent functionalization and its nonvolatile memory application. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7309-7313.	2.7	11
92	Compositional and functional responses of bacterial community to titanium dioxide nanoparticles varied with soil heterogeneity and exposure duration. <i>Science of the Total Environment</i> , 2021, 773, 144895.	3.9	10
93	Infiltrating P3HT polymer into ordered TiO ₂ nanotube arrays. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 658-663.	0.8	9
94	Synthesis and memory performance of a conjugated polymer with an integrated fluorene, carbazole and oxadiazole backbone. <i>Polymer Journal</i> , 2012, 44, 257-263.	1.3	9
95	Ion transport-related resistive switching in film sandwich structures. <i>Science Bulletin</i> , 2014, 59, 2363-2382.	1.7	9
96	Short-term supplementation of isocaloric meals with l-tryptophan affects pig growth. <i>Amino Acids</i> , 2017, 49, 2009-2014.	1.2	9
97	Reversible Luminescence Modulation upon an Electric Field on a Full Solid-State Device Based on Lanthanide Dimers. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 15551-15556.	4.0	8
98	Crosstalk Between Nuclear Glucose-Regulated Protein 78 and Tumor Protein 53 Contributes to the Lipopolysaccharide Aggravated Apoptosis of Endoplasmic Reticulum Stress-Responsive Porcine Intestinal Epithelial Cells. <i>Cellular Physiology and Biochemistry</i> , 2018, 48, 2441-2455.	1.1	8
99	Effects of cold recovery technology on the microbial drinking water quality in unchlorinated distribution systems. <i>Environmental Research</i> , 2020, 183, 109175.	3.7	8
100	Improving the Recognition Accuracy of Memristive Neural Networks via Homogenized Analog Type Conductance Quantization. <i>Micromachines</i> , 2020, 11, 427.	1.4	8
101	MoS ₂ nanosheets chemically modified with metal phthalocyanine <i>via</i> mussel-inspired chemistry for multifunctional memristive devices. <i>Journal of Materials Chemistry C</i> , 2021, 9, 6930-6936.	2.7	8
102	Nanoscale magnetization reversal by electric field-induced ion migration. <i>MRS Communications</i> , 2019, 9, 14-26.	0.8	7
103	Pixel visibility based multifocus image fusion. , 2003, , .		6
104	A univariate ternary logic and three-valued multiplier implemented in a nano-columnar crystalline zinc oxide memristor. <i>RSC Advances</i> , 2019, 9, 24595-24602.	1.7	6
105	Magnetism modulation and conductance quantization in a gadolinium oxide memristor. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 26322-26329.	1.3	6
106	Improved Auto Disturbance Rejection Control Based on Moth Flame Optimization for Permanent Magnet Synchronous Motor. <i>IEEE Transactions on Electrical and Electronic Engineering</i> , 2021, 16, 1124-1135.	0.8	6
107	A portable wireless power transmission system for video capsule endoscopes. <i>Bio-Medical Materials and Engineering</i> , 2015, 26, S1721-S1730.	0.4	5
108	Impact of sulfur-containing amino acids on the plasma metabolomics and intestinal microflora of the sow in late pregnancy. <i>Food and Function</i> , 2019, 10, 5910-5921.	2.1	5

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109	A Quantized Convolutional Neural Network Implemented With Memristor for Image Denoising and Recognition. <i>Frontiers in Neuroscience</i> , 2021, 15, 717222.	1.4	5
110	Polyaniline-poly(vinylidene fluoride) blend microfiltration membrane and its spontaneous gold recovery application. <i>Science China Chemistry</i> , 2018, 61, 118-126.	4.2	4
111	Solid-State Electrochemical Process and Performance Optimization of Memristive Materials and Devices. <i>Chemistry</i> , 2019, 1, 44-68.	0.9	4
112	Direct evidence of microbiological water quality changes on bacterial quantity and community caused by plumbing system. <i>Journal of Environmental Sciences</i> , 2022, 116, 175-183.	3.2	4
113	Image fusion based on estimation theory. , 0, , .		3
114	Transparent Electronics: Thermally Stable Transparent Resistive Random Access Memory based on All-oxide Heterostructures (<i>Adv. Funct. Mater.</i> 15/2014). <i>Advanced Functional Materials</i> , 2014, 24, 2110-2110.	7.8	2
115	Intestinal microbiota in growing pigs: effects of stocking density. <i>Food and Agricultural Immunology</i> , 2018, 29, 524-535.	0.7	2
116	Nonvolatile Memory: Metal-Organic Framework Nanofilm for Mechanically Flexible Information Storage Applications (<i>Adv. Funct. Mater.</i> 18/2015). <i>Advanced Functional Materials</i> , 2015, 25, 2630-2630.	7.8	1
117	Nanochannels: A 1D Vanadium Dioxide Nanochannel Constructed via Electric-Field-Induced Ion Transport and its Superior Metal-Insulator Transition (<i>Adv. Mater.</i> 39/2017). <i>Advanced Materials</i> , 2017, 29, .	11.1	1
118	Acoustic wave scattering by two dimensional inclusion with irregular shape in an ideal fluid. , 2012, , .		0
119	Switching Memory: An Optoelectronic Resistive Switching Memory with Integrated Demodulating and Arithmetic Functions (<i>Adv. Mater.</i> 17/2015). <i>Advanced Materials</i> , 2015, 27, 2812-2812.	11.1	0
120	Elastic Conductors: A Composite Elastic Conductor with High Dynamic Stability Based on 3D-Calabash Bunch Conductive Network Structure for Wearable Devices (<i>Adv. Electron. Mater.</i> 9/2018). <i>Advanced Electronic Materials</i> , 2018, 4, 1870045.	2.6	0