

# Jiajun Gu

## List of Publications by Year in descending order

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83  
papers

4,817  
citations

87888

38  
h-index

95266

68  
g-index

89  
all docs

89  
docs citations

89  
times ranked

5654  
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-dimensional quantum-sheet films with sub-1.2%nm channels for ultrahigh-rate electrochemical capacitance. <i>Nature Nanotechnology</i> , 2022, 17, 153-158.	31.5	55
2	Constructing High-Performance Lithium-Ion Hybrid Capacitors Based on the Electrode Framework Matching Strategy. <i>ACS Applied Energy Materials</i> , 2022, 5, 1963-1971.	5.1	7
3	Bioinspired Porous Anodic Alumina/Aluminum Flake Powder for Multiband Compatible Low Detectability. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 8464-8472.	8.0	7
4	In Situ Ion-Exchange Synthesis of Fe <sub>3</sub> O <sub>4</sub> Nanosheets with 3D Hierarchically Porous Carbon Frameworks for High-Performance Energy Storage. <i>Energy Technology</i> , 2022, 10, .	3.8	2
5	Rational Construction of a 0D/1D S-Scheme CeO <sub>2</sub> /CdWO <sub>4</sub> Heterojunction for Photocatalytic CO <sub>2</sub> Reduction and H <sub>2</sub> Production. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 10931-10944.	3.7	13
6	Butterfly wing architectures inspire sensor and energy applications. <i>National Science Review</i> , 2021, 8, nwaal07.	9.5	32
7	Hierarchical few-layer fluorine-free Ti <sub>3</sub> C <sub>2</sub> T <sub>X</sub> (T = O, F) ETQq1 1 0.784314 rgBT /Overlock 10 T15 Chemistry A, 2021, 9, 922-927.	10.3	29
8	A bioinspired solar evaporator for continuous and efficient desalination by salt dilution and secretion. <i>Journal of Materials Chemistry A</i> , 2021, 9, 17985-17993.	10.3	11
9	Copper sulfide as the cation exchange template for synthesis of bimetallic catalysts for CO <sub>2</sub> electroreduction. <i>RSC Advances</i> , 2021, 11, 23948-23959.	3.6	6
10	Gyroid-structured Au-Ag periodic bimetal materials for ultrasensitive SERS detection. <i>Journal of Materials Chemistry C</i> , 2021, 9, 9137-9141.	5.5	3
11	Bioinspired multilevel interconnected networks with porous multiwalled nanotubes built by heterogeneous nanocrystallites. <i>Journal of the American Ceramic Society</i> , 2020, 103, 604-613.	3.8	1
12	Mechanically alloyed NiTiO <sub>3</sub> /transition metal heterostructures: introducing oxygen vacancies for exceptionally enhanced hydrogen evolution reaction activity. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14908-14914.	10.3	22
13	Surface-Carbonized Bamboos with Multilevel Functional Biostructures Deliver High Photothermal Water Evaporation Performance. <i>Advanced Sustainable Systems</i> , 2020, 4, 2000126.	5.3	53
14	A Scalable Nickel-Cellulose Hybrid Metamaterial with Broadband Light Absorption for Efficient Solar Distillation. <i>Advanced Materials</i> , 2020, 32, e1907975.	21.0	73
15	Pt-decorated fluorine-free Ti <sub>3</sub> C <sub>2</sub> T <sub>X</sub> for hydrogen evolution reaction. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 11345-11351.	2.2	2
16	3D Interconnected Gyroid Au-CuS Materials for Efficient Solar Steam Generation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 34837-34847.	8.0	52
17	Achieving Rich and Active Alkaline Hydrogen Evolution Heterostructures via Interface Engineering on 2D 1T-MoS <sub>2</sub> Quantum Sheets. <i>Advanced Functional Materials</i> , 2020, 30, 2000551.	14.9	83
18	Superior photothermal black TiO <sub>2</sub> with random size distribution as flexible film for efficient solar steam generation. <i>Applied Materials Today</i> , 2020, 20, 100669.	4.3	27

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19	One-Pot Hydrothermal Synthesis of Ternary $1T\text{-MoS}_2/\text{Hexa-}\text{WO}_3/\text{Graphene}$ Composites for High-Performance Supercapacitors. <i>Chemistry - A European Journal</i> , 2019, 25, 16054-16062.	3.3	13
20	Ce <sup>4+</sup> as a facile and versatile surface modification reagent for templated synthesis in electrical applications. <i>Nanoscale</i> , 2019, 11, 2138-2142.	5.6	2
21	Highly defective $1T\text{-MoS}_2$ nanosheets on 3D reduced graphene oxide networks for supercapacitors. <i>Carbon</i> , 2019, 152, 697-703.	10.3	86
22	Fluorine-free $\text{Ti}_3\text{C}_2\text{T}_x$ as anode materials for Li-ion batteries. <i>Electrochemistry Communications</i> , 2019, 104, 106472.	4.7	46
23	Fluorine-free $\text{Ti}_3\text{C}_2\text{T}_x$ ( $T = \text{O}, \text{OH}$ ) nanosheets ( $\sim 1/450 \mu\text{m}$ ) for nitrogen fixation under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14462-14465.	10.3	76
24	<i>In situ</i> synthesis of BiOCl nanosheets on three-dimensional hierarchical structures for efficient photocatalysis under visible light. <i>Nanoscale</i> , 2019, 11, 10203-10208.	5.6	32
25	3D Assembly: Large-Area 3D Hierarchical Superstructures Assembled from Colloidal Nanoparticles (Small 18/2019). <i>Small</i> , 2019, 15, 1970096.	10.0	0
26	Biomimetic Superstructures Assembled from Au Nanostars and Nanospheres for Efficient Solar Evaporation. <i>Advanced Sustainable Systems</i> , 2019, 3, 1900003.	5.3	37
27	Biocompatible, small-sized and well-dispersed gold nanoparticles regulated by silk fibroin fiber from <i>Bombyx mori</i> cocoons. <i>Frontiers of Materials Science</i> , 2019, 13, 126-132.	2.2	9
28	Large-Area 3D Hierarchical Superstructures Assembled from Colloidal Nanoparticles. <i>Small</i> , 2019, 15, 1805308.	10.0	12
29	Microwave-assisted ultrafast synthesis of adjustable bimetal phosphide/graphene heterostructures from MOFs for efficient electrochemical water splitting. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14526-14535.	10.3	88
30	AgBr/diatomite for the efficient visible-light-driven photocatalytic degradation of Rhodamine B. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	1.9	6
31	Fluorine-Free Synthesis of High-Purity $\text{Ti}_3\text{C}_2\text{T}_x$ ( $T = \text{OH}, \text{O}$ ) via Alkali Treatment. <i>Angewandte Chemie</i> , 2018, 130, 6223-6227.	2.0	459
32	Fluorine-Free Synthesis of High-Purity $\text{Ti}_3\text{C}_2\text{T}_x$ ( $T = \text{OH}, \text{O}$ ) via Alkali Treatment. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6115-6119.	13.8	809
33	Highly sensitive, reproducible and uniform SERS substrates with a high density of three-dimensionally distributed hotspots: gyroid-structured Au periodic metallic materials. <i>NPG Asia Materials</i> , 2018, 10, e462-e462.	7.9	65
34	Enhanced photocatalytic hydrogen production on three-dimensional gold butterfly wing scales/CdS nanoparticles. <i>Applied Surface Science</i> , 2018, 427, 807-812.	6.1	13
35	Quantum Dots of $1T$ Phase Transitional Metal Dichalcogenides Generated <i>via</i> Electrochemical Li Intercalation. <i>ACS Nano</i> , 2018, 12, 308-316.	14.6	110
36	Self-Assembly of Large-Area 2D Polycrystalline Transition Metal Carbides for Hydrogen Electrocatalysis. <i>Advanced Materials</i> , 2018, 30, e1805188.	21.0	84

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37	Hierarchical Porous Carbonized Lotus Seedpods for Highly Efficient Solar Steam Generation. <i>Chemistry of Materials</i> , 2018, 30, 6217-6221.	6.7	204
38	Three-Dimensional CdS/Au Butterfly Wing Scales with Hierarchical Rib Structures for Plasmon-Enhanced Photocatalytic Hydrogen Production. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 19649-19655.	8.0	54
39	Ordering of Hollow Ag-Au Nanospheres with Butterfly Wings as a Bio-template. <i>Scientific Reports</i> , 2018, 8, 9261.	3.3	13
40	Optical Performance Study of Gyroid-Structured TiO <sub>2</sub> Photonic Crystals Replicated from Natural Templates Using a Sol-Gel Method. <i>Advanced Optical Materials</i> , 2018, 6, 1800064.	7.3	11
41	N-doped catalytic graphitized hard carbon for high-performance lithium/sodium-ion batteries. <i>Scientific Reports</i> , 2018, 8, 9934.	3.3	51
42	Tumor marker detection using surface enhanced Raman spectroscopy on 3D Au butterfly wings. <i>Journal of Materials Chemistry B</i> , 2017, 5, 1594-1600.	5.8	40
43	Angle-independent pH-sensitive composites with natural gyroid structure. <i>Scientific Reports</i> , 2017, 7, 42207.	3.3	10
44	Self-crosslink assisted synthesis of 3D porous branch-like Fe <sub>3</sub> O <sub>4</sub> /C hybrids for high-performance lithium/sodium-ion batteries. <i>RSC Advances</i> , 2017, 7, 50307-50316.	3.6	24
45	Photocatalyst of organic pollutants decomposition: TiO <sub>2</sub> /glass fiber cloth composites. <i>Catalysis Today</i> , 2016, 274, 2-7.	4.4	29
46	Bio-templated germanium photonic crystals by a facile liquid phase deposition process. <i>RSC Advances</i> , 2016, 6, 73156-73159.	3.6	3
47	Light-Driven Overall Water Splitting Enabled by a Photo-Dember Effect Realized on 3D Plasmonic Structures. <i>ACS Nano</i> , 2016, 10, 6693-6701.	14.6	39
48	Optical Functional Materials Inspired by Biology. <i>Advanced Optical Materials</i> , 2016, 4, 195-224.	7.3	67
49	Spontaneous Cross-linking for Fabrication of Nanohybrids Embedded with Size-Controllable Particles. <i>ACS Nano</i> , 2016, 10, 889-898.	14.6	61
50	Surface plasmon resonance of gold nanocrystals coupled with slow-photon-effect of biomorphic TiO <sub>2</sub> photonic crystals for enhanced photocatalysis under visible-light. <i>Catalysis Today</i> , 2016, 274, 15-21.	4.4	31
51	Photonic structure arrays generated using butterfly wing scales as biological units. <i>Journal of Materials Chemistry B</i> , 2015, 3, 1743-1747.	5.8	6
52	Surface-Enhanced Raman Scattering (SERS) Mechanisms of Metal Scale Replicas. <i>SpringerBriefs in Materials</i> , 2015, , 69-88.	0.3	0
53	“Egg-Box”-Assisted Fabrication of Porous Carbon with Small Mesopores for High-Rate Electric Double Layer Capacitors. <i>ACS Nano</i> , 2015, 9, 11225-11233.	14.6	291
54	Quasi-Periodical 3D Hierarchical Silver Nanosheets with Sub-10 nm Nanogap Applied as an Effective and Applicable SERS Substrate. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500359.	3.7	5

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55	Bioinspired Au-CuS coupled photothermal materials: enhanced infrared absorption and photothermal conversion from butterfly wings. <i>Nano Energy</i> , 2015, 17, 52-62.	16.0	59
56	Coupling of plasmon and 3D antireflection quasi-photon crystal structure for enhancement infrared absorption. <i>Journal of Materials Chemistry C</i> , 2015, 3, 1672-1679.	5.5	22
57	Inspiration from butterfly and moth wing scales: Characterization, modeling, and fabrication. <i>Progress in Materials Science</i> , 2015, 68, 67-96.	32.8	74
58	Morphology Genetic Materials Templated from Natural Species. <i>Advanced Materials</i> , 2015, 27, 464-478.	21.0	77
59	Surface-Enhanced Raman Scattering (SERS) Performance of Metal Scale Replicas. <i>SpringerBriefs in Materials</i> , 2015, , 55-68.	0.3	0
60	Butterfly effects: novel functional materials inspired from the wings scales. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 19767-19780.	2.8	41
61	Metal-Organic Frameworks Reactivate Deceased Diatoms to be Efficient CO <sub>2</sub> Absorbents. <i>Advanced Materials</i> , 2014, 26, 1229-1234.	21.0	44
62	Reduction of CuO Butterfly Wing Scales Generates Cu SERS Substrates for DNA Base Detection. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 9878-9882.	8.0	42
63	Influence of disorders on the optical properties of butterfly wing: Analysis with a finite-difference time-domain method. <i>European Physical Journal B</i> , 2013, 86, 1.	1.5	6
64	Bioinspired Fabrication of Hierarchically Structured, pH-Tunable Photonic Crystals with Unique Transition. <i>ACS Nano</i> , 2013, 7, 4911-4918.	14.6	102
65	Large-visual-angle microstructure inspired from quantitative design of Morpho butterflies™ lamellae deviation using the FDTD/PSO method. <i>Optics Letters</i> , 2013, 38, 169.	3.3	17
66	An ancient method-inspired route for fast fabrication of ~PbS bird feathers™. <i>MRS Communications</i> , 2013, 3, 61-65.	1.8	1
67	High-Density Hotspots Engineered by Naturally Piled-Up Subwavelength Structures in Three-Dimensional Copper Butterfly Wing Scales for Surface-Enhanced Raman Scattering Detection. <i>Advanced Functional Materials</i> , 2012, 22, 1578-1585.	14.9	109
68	3D Network Magnetophotonic Crystals Fabricated on Morpho Butterfly Wing Templates. <i>Advanced Functional Materials</i> , 2012, 22, 2072-2080.	14.9	91
69	Biological Templates: High-Density Hotspots Engineered by Naturally Piled-Up Subwavelength Structures in Three-Dimensional Copper Butterfly Wing Scales for Surface-Enhanced Raman Scattering Detection ( <i>Adv. Funct. Mater.</i> 8/2012). <i>Advanced Functional Materials</i> , 2012, 22, 1542-1542.	14.9	1
70	Synthesis of naturally cross-linked polycrystalline ZrO <sub>2</sub> hollow nanowires using butterfly as templates. <i>Materials Chemistry and Physics</i> , 2012, 134, 16-20.	4.0	9
71	Moth wing scales as optical pH sensors. <i>Sensors and Actuators B: Chemical</i> , 2012, 166-167, 824-828.	7.8	22
72	Morph-Genetic Materials Inspired from Butterfly Wing Scales. <i>Advanced Topics in Science and Technology in China</i> , 2012, , 75-122.	0.1	3

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73	Tunable three-dimensional ZrO <sub>2</sub> photonic crystals replicated from single butterfly wing scales. <i>Journal of Materials Chemistry</i> , 2011, 21, 15237.	6.7	29
74	ZnO single butterfly wing scales: synthesis and spatial optical anisotropy. <i>Journal of Materials Chemistry</i> , 2011, 21, 6140.	6.7	35
75	Tunable optical photonic devices made from moth wing scales: a way to enlarge natural functional structures' pool. <i>Journal of Materials Chemistry</i> , 2011, 21, 13913.	6.7	22
76	Morphological Effects on Surface-Enhanced Raman Scattering from Silver Butterfly Wing Scales Synthesized via Photoreduction. <i>Langmuir</i> , 2011, 27, 11742-11746.	3.5	41
77	Versatile Fabrication of Intact Three-dimensional Metallic Butterfly Wing Scales with Hierarchical Sub-micrometer Structures. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 8307-8311.	13.8	113
78	Synthesis of Cu-doped WO <sub>3</sub> materials with photonic structures for high performance sensors. <i>Journal of Materials Chemistry</i> , 2010, 20, 9126.	6.7	82
79	Iridescent large-area ZrO <sub>2</sub> photonic crystals using butterfly as templates. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	47
80	A simple and effective approach towards biomimetic replication of photonic structures from butterfly wings. <i>Nanotechnology</i> , 2009, 20, 315303.	2.6	41
81	Novel Photoanode Structure Templated from Butterfly Wing Scales. <i>Chemistry of Materials</i> , 2009, 21, 33-40.	6.7	211
82	Giant Seebeck coefficient decrease in polycrystalline materials with highly anisotropic band structures: Implications in seeking high-quality thermoelectric materials. <i>Solid State Communications</i> , 2008, 148, 10-13.	1.9	7
83	Biomimetic zinc oxide replica with structural color using butterfly ( <i>Ideopsis similis</i> ) wings as templates. <i>Bioinspiration and Biomimetics</i> , 2006, 1, 89-95.	2.9	68