

# Ruibin Jiang

## List of Publications by Year in descending order

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94  
papers

7,630  
citations

61857

43  
h-index

51492

86  
g-index

95  
all docs

95  
docs citations

95  
times ranked

10926  
citing authors

#	ARTICLE	IF	CITATIONS
1	Metal/Semiconductor Hybrid Nanostructures for Plasmon-Enhanced Applications. <i>Advanced Materials</i> , 2014, 26, 5274-5309.	11.1	926
2	Plasmonic gold mushroom arrays with refractive index sensing figures of merit approaching the theoretical limit. <i>Nature Communications</i> , 2013, 4, 2381.	5.8	612
3	Plasmonic Harvesting of Light Energy for Suzuki Coupling Reactions. <i>Journal of the American Chemical Society</i> , 2013, 135, 5588-5601.	6.6	597
4	Plasmon-Controlled Fluorescence: Beyond the Intensity Enhancement. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 191-202.	2.1	388
5	High-Efficiency "Working-in-Tandem" Nitrogen Photofixation Achieved by Assembling Plasmonic Gold Nanocrystals on Ultrathin Titania Nanosheets. <i>Journal of the American Chemical Society</i> , 2018, 140, 8497-8508.	6.6	382
6	Plasmon-enhanced chemical reactions. <i>Journal of Materials Chemistry A</i> , 2013, 1, 5790.	5.2	257
7	Unraveling the Evolution and Nature of the Plasmons in (Au Core)@Ag Shell Nanorods. <i>Advanced Materials</i> , 2012, 24, OP200-7.	11.1	225
8	Site-Selective Growth of Crystalline Ceria with Oxygen Vacancies on Gold Nanocrystals for Near-Infrared Nitrogen Photofixation. <i>Journal of the American Chemical Society</i> , 2019, 141, 5083-5086.	6.6	222
9	Time-Temperature Indicator for Perishable Products Based on Kinetically Programmable Ag Overgrowth on Au Nanorods. <i>ACS Nano</i> , 2013, 7, 4561-4568.	7.3	173
10	Emerging Applications of Plasmons in Driving CO <sub>2</sub> Reduction and N <sub>2</sub> Fixation. <i>Advanced Materials</i> , 2018, 30, e1802227.	11.1	155
11	Dielectric nanoresonators for light manipulation. <i>Physics Reports</i> , 2017, 701, 1-50.	10.3	145
12	Nanoscale surface chemistry directs the tunable assembly of silver octahedra into three two-dimensional plasmonic superlattices. <i>Nature Communications</i> , 2015, 6, 6990.	5.8	137
13	Fe <sup>3+</sup> doped NiS <sub>2</sub> nanosheet: a highly efficient and low-cost hydrogen evolution catalyst. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10173-10181.	5.2	137
14	Au/Ag core-shell nanocuboids for high-efficiency organic solar cells with broadband plasmonic enhancement. <i>Energy and Environmental Science</i> , 2016, 9, 898-905.	15.6	127
15	Highly Compressible Carbon Sponge Supercapacitor Electrode with Enhanced Performance by Growing Nickel-Cobalt Sulfide Nanosheets. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 10087-10095.	4.0	111
16	Decomposition of Ethanol on Pd(111): A Density Functional Theory Study. <i>Langmuir</i> , 2010, 26, 1879-1888.	1.6	103
17	Colloidal Moderate-Refractive-Index Cu <sub>2</sub> O Nanospheres as Visible-Region Nanoantennas with Electromagnetic Resonance and Directional Light-Scattering Properties. <i>Advanced Materials</i> , 2015, 27, 7432-7439.	11.1	102
18	One-pot hydrothermal fabrication of layered $\beta$ -Ni(OH) <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> nanohybrids for enhanced photocatalytic water splitting. <i>Applied Catalysis B: Environmental</i> , 2016, 194, 74-83.	10.8	102

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19	Mass-Based Photothermal Comparison Among Gold Nanocrystals, PbS Nanocrystals, Organic Dyes, and Carbon Black. <i>Journal of Physical Chemistry C</i> , 2013, 117, 8909-8915.	1.5	97
20	Realization of Red Plasmon Shifts up to $\sim 14900$ nm by AgPd-Tipping Elongated Au Nanocrystals. <i>Journal of the American Chemical Society</i> , 2017, 139, 13837-13846.	6.6	96
21	Chemical Vapor Deposition Growth of High Crystallinity $\text{Sb}_2\text{Se}_3$ Nanowire with Strong Anisotropy for Near-Infrared Photodetectors. <i>Small</i> , 2019, 15, e1805307.	5.2	93
22	Density Functional Investigation of Methanol Dehydrogenation on Pd(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 4188-4197.	1.5	91
23	Thickness Control Produces Gold Nanoplates with Their Plasmon in the Visible and Near-Infrared Regions. <i>Advanced Optical Materials</i> , 2016, 4, 76-85.	3.6	91
24	Water-Induced Formation of $\text{Ni}_2\text{P}$ - $\text{Ni}_{12}\text{P}_5$ Interfaces with Superior Electrocatalytic Activity toward Hydrogen Evolution Reaction. <i>Small</i> , 2021, 17, e2006770.	5.2	83
25	Bifunctional Au@Pt core-shell nanostructures for in situ monitoring of catalytic reactions by surface-enhanced Raman scattering spectroscopy. <i>Nanoscale</i> , 2014, 6, 9063-9070.	2.8	81
26	Design of Palladium-Doped $\text{g-C}_3\text{N}_4$ for Enhanced Photocatalytic Activity toward Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2018, 1, 2866-2873.	2.5	76
27	Colloidal Gold Nanocups with Orientation-Dependent Plasmonic Properties. <i>Advanced Materials</i> , 2016, 28, 6322-6331.	11.1	74
28	Localized and Continuous Tuning of Monolayer $\text{MoS}_2$ Photoluminescence Using a Single Shape-Controlled Ag Nanoantenna. <i>Advanced Materials</i> , 2016, 28, 701-706.	11.1	73
29	Density Functional Study of Ethanol Decomposition on Rh(111). <i>Journal of Physical Chemistry C</i> , 2010, 114, 21493-21503.	1.5	66
30	Aerosol-Sprayed Gold/Ceria Photocatalyst with Superior Plasmonic Hot Electron-Enabled Visible-Light Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2560-2571.	4.0	65
31	Ultrasensitive Plasmonic Response of Bimetallic Au/Pd Nanostructures to Hydrogen. <i>Advanced Functional Materials</i> , 2014, 24, 7328-7337.	7.8	61
32	A Chemical Approach To Break the Planar Configuration of Ag Nanocubes into Tunable Two-Dimensional Metasurfaces. <i>Nano Letters</i> , 2016, 16, 3872-3878.	4.5	61
33	Photodriven Disproportionation of Nitrogen and Its Change to Reductive Nitrogen Photofixation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 927-936.	7.2	61
34	A Schottky-Barrier-Free Plasmonic Semiconductor Photocatalyst for Nitrogen Fixation in a One-to-Two-Photon Manner. <i>Advanced Materials</i> , 2022, 34, e2104226.	11.1	60
35	Macroscale Colloidal Noble Metal Nanocrystal Arrays and Their Refractive Index-Based Sensing Characteristics. <i>Small</i> , 2014, 10, 802-811.	5.2	59
36	Unusual and Tunable One-Photon Nonlinearity in Gold-Dye Plexcitonic Fano Systems. <i>Nano Letters</i> , 2015, 15, 2705-2710.	4.5	59

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37	Correlating the Plasmonic and Structural Evolutions during the Sulfidation of Silver Nanocubes. ACS Nano, 2013, 7, 9354-9365.	7.3	57
38	Crystalline structure-dependent growth of bimetallic nanostructures. Nanoscale, 2012, 4, 7070.	2.8	56
39	Oxygen Vacancy-Enhanced Electrocatalytic Performances of TiO <sub>2</sub> Nanosheets toward N <sub>2</sub> Reduction Reaction. Advanced Materials Interfaces, 2019, 6, 1901034.	1.9	54
40	Aerosol-spray metal phosphide microspheres with bifunctional electrocatalytic properties for water splitting. Journal of Materials Chemistry A, 2018, 6, 4783-4792.	5.2	53
41	Anchoring Positively Charged Pd Single Atoms in Ordered Porous Ceria to Boost Catalytic Activity and Stability in Suzuki Coupling Reactions. Small, 2020, 16, e2001782.	5.2	51
42	Metallic-Phase MoS <sub>2</sub> Nanopetals with Enhanced Electrocatalytic Activity for Hydrogen Evolution. ACS Sustainable Chemistry and Engineering, 2018, 6, 13435-13442.	3.2	48
43	Intercalation and delamination behavior of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> and MnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> /RGO flexible fibers with high volumetric capacitance. Journal of Materials Chemistry A, 2019, 7, 12582-12592.	5.2	48
44	Aluminum nanostructures with strong visible-range SERS activity for versatile micropatterning of molecular security labels. Nanoscale, 2018, 10, 575-581.	2.8	47
45	Enhanced high-order ultraviolet upconversion luminescence in sub-20 nm $\text{NaYbF}_4:0.5\% \text{Tm}$ nanoparticles via Fe <sup>3+</sup> doping. CrystEngComm, 2017, 19, 1304-1310.	1.3	43
46	Facile synthesis of Ti <sub>4</sub> O <sub>7</sub> on hollow carbon spheres with enhanced polysulfide binding for high-performance lithium-sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 10494-10504.	5.2	43
47	Methanol dehydrogenation on Rh(111): A density functional and microkinetic modeling study. Journal of Molecular Catalysis A, 2011, 344, 99-110.	4.8	41
48	Sub-10 nm Water-Dispersible $\text{NaGdF}_4: \text{X}\% \text{Eu}^{3+}$ Nanoparticles with Enhanced Biocompatibility for in Vivo X-ray Luminescence Computed Tomography. ACS Applied Materials & Interfaces, 2017, 9, 39985-39993.	4.0	38
49	All solid-state V <sub>2</sub> O <sub>5</sub> -based flexible hybrid fiber supercapacitors. Journal of Power Sources, 2017, 371, 18-25.	4.0	36
50	Gold Nanobipyramid-Enhanced Hydrogen Sensing with Plasmon Red Shifts Reaching $\lambda \approx 140$ nm at 2 vol% Hydrogen Concentration. Advanced Optical Materials, 2017, 5, 1700740.	3.6	34
51	Simultaneous enhancement of red upconversion luminescence and CT contrast of NaGdF <sub>4</sub> :Yb,Er nanoparticles via Lu <sup>3+</sup> doping. Nanoscale, 2018, 10, 20279-20288.	2.8	32
52	Mechanism of the Ethylene Conversion to Ethylidyne on Rh(111): A Density Functional Investigation. Journal of Physical Chemistry C, 2010, 114, 8440-8448.	1.5	31
53	Colloidal porous gold nanoparticles. Nanoscale, 2018, 10, 18473-18481.	2.8	31
54	Engineering of Hollow PdPt Nanocrystals via Reduction Kinetic Control for Their Superior Electrocatalytic Performances. ACS Applied Materials & Interfaces, 2018, 10, 29543-29551.	4.0	31

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55	Metal carbide/Ni hybrids for high-performance electromagnetic absorption and absorption-based electromagnetic interference shielding. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 4832-4844.	3.0	31
56	Dehydrogenation of methanol on Pd(100): comparison with the results of Pd(111). <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 7794.	1.3	30
57	(Fe,N-codoped carbon nanotube)/(Fe-based nanoparticle) nanohybrid derived from Fe-doped g-C <sub>3</sub> N <sub>4</sub> : A superior catalyst for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2020, 579, 391-400.	5.0	30
58	Plasmon Modes Induced by Anisotropic Gap Opening in Au@Cu <sub>2</sub> O Nanorods. <i>Small</i> , 2016, 12, 4264-4276.	5.2	28
59	Formation mechanisms of interfaces between different Ti <sub>n</sub> O <sub>2n+1</sub> phases prepared by carbothermal reduction reaction. <i>CrystEngComm</i> , 2019, 21, 524-534.	1.3	28
60	Graphitic Carbon Nitride (g-C <sub>3</sub> N <sub>4</sub> ) Supported Palladium Species: An Efficient Heterogeneous Photocatalyst Surpassing Homogeneous Thermal Heating Systems for Suzuki Coupling. <i>ChemPlusChem</i> , 2019, 84, 1164-1168.	1.3	27
61	Highly enhanced transverse plasmon resonance and tunable double Fano resonances in gold@titania nanorods. <i>Nanoscale</i> , 2016, 8, 6514-6526.	2.8	25
62	A Low-Cost and Facile Method for the Preparation of Fe/N/C-Based Hybrids with Superior Catalytic Performance toward Oxygen Reduction Reaction. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900273.	1.9	25
63	Insight into factors affecting the presence, degree, and temporal stability of fluorescence intensification on ZnO nanorod ends. <i>Nanoscale</i> , 2015, 7, 1424-1436.	2.8	22
64	A Queue-Ordered Layered Mn-Based Oxides with Al Substitution as High-Rate and High-Stabilized Cathode for Sodium-Ion Batteries. <i>Small</i> , 2021, 17, e2006259.	5.2	22
65	Synthesis of Titanium Molybdenum Nitride-Decorated Electrospun Carbon Nanofiber Membranes as Interlayers to Suppress Polysulfide Shuttling in Lithium-Sulfur Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 776-788.	3.2	21
66	Density Functional Study of the Reaction of SO <sub>2</sub> on Ir(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 18223-18232.	1.5	20
67	Decomposition of Methanthiol on Pt(111): A Density Functional Investigation. <i>Langmuir</i> , 2010, 26, 12017-12025.	1.6	20
68	Transparent, Flexible, and Stable Polyethersulfone/Copper Nanowires/Polyethylene Terephthalate Sandwich-Structured Films for High-Performance Electromagnetic Interference Shielding. <i>Advanced Engineering Materials</i> , 2021, 23, 2100283.	1.6	20
69	Effect of surface-deposited Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene on the photoelectrochemical water-oxidation performance of iron-doped titania nanorod array. <i>Chemical Engineering Journal</i> , 2022, 431, 134124.	6.6	20
70	Au Nanobottles with Synthetically Tunable Overall and Opening Sizes for Chemo-Photothermal Combined Therapy. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 5353-5363.	4.0	19
71	(TiO <sub>2</sub> (B) Nanosheet)/(Metallic Phase MoS <sub>2</sub> ) Hybrid Nanostructures: An Efficient Catalyst for Photocatalytic Hydrogen Evolution. <i>Solar Rrl</i> , 2019, 3, 1900323.	3.1	18
72	Toroidal dipole-induced absorption and scattering dip in (dielectric core)@(plasmonic shell) nanostructures. <i>Optics Express</i> , 2017, 25, 28935.	1.7	15

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73	Tuning the catalytic activity of colloidal noble metal nanocrystals by using differently charged surfactants. <i>Nanoscale</i> , 2018, 10, 5607-5616.	2.8	14
74	Interfacial Engineering of Metal/Metal Oxide Heterojunctions toward Oxygen Reduction and Evolution Reactions. <i>ChemPlusChem</i> , 2021, 86, 1586-1601.	1.3	14
75	Chemo-Phototherapy with Carfilzomib-Encapsulated TiN Nanoshells Suppressing Tumor Growth and Lymphatic Metastasis. <i>Small</i> , 2022, 18, .	5.2	14
76	Highly efficient oxygen evolution catalysis achieved by NiFe oxyhydroxide clusters anchored on carbon black. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10342-10349.	5.2	13
77	Control of the emission from electric and magnetic dipoles by gold nanocup antennas. <i>Optics Express</i> , 2019, 27, 14221.	1.7	12
78	Photodriven Disproportionation of Nitrogen and Its Change to Reductive Nitrogen Photofixation. <i>Angewandte Chemie</i> , 2021, 133, 940-949.	1.6	12
79	Driving Click Reactions with Plasmonic Hot Holes on (Au Core)@(Cu <sub>2</sub> O Shell) Nanostructures for Regioselective Production of 1,2,3-Triazoles. <i>ACS Applied Nano Materials</i> , 2021, 4, 4623-4631.	2.4	12
80	Synthesis of Ti <sub>4</sub> O <sub>7</sub> /Ti <sub>3</sub> O <sub>5</sub> Dual-Phase Nanofibers with Coherent Interface for Oxygen Reduction Reaction Electrocatalysts. <i>Materials</i> , 2020, 13, 3142.	1.3	11
81	Electromagnetic Resonance-Modulated Magnetic Emission in Europium-Doped Sub-Micrometer Zirconia Spheres. <i>Advanced Optical Materials</i> , 2021, 9, 2002212.	3.6	11
82	Formation Mechanism of Nitrogen-Doped Titanium Monoxide Nanospheres and Their Application as Sulfur Hosts in Lithium Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2021, 4, 5713-5726.	2.5	11
83	Unraveling the Mechanism of the Zn-Improved Catalytic Activity of Pd-Based Catalysts for Water-Gas Shift Reaction. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20181-20191.	1.5	9
84	Design and synthesis of carbon nanofibers decorated by dual-phase TiO <sub>2</sub> -1 nanoparticles with synergistic catalytic effect as high performance oxygen reduction reaction catalysts. <i>Electrochimica Acta</i> , 2020, 344, 136120.	2.6	9
85	Enhancing the photocatalytic water splitting of graphitic carbon nitride by hollow anatase titania dielectric resonators. <i>Journal of Colloid and Interface Science</i> , 2021, 598, 14-23.	5.0	9
86	Nanostructures Composed of Dual Plasmonic Materials Exhibiting High Thermal Stability and SERS Enhancement. <i>Particle and Particle Systems Characterization</i> , 2021, 38, 2000321.	1.2	8
87	(Gold triangular nanoplate core)@(silver shell) nanostructures as highly sensitive and selective plasmonic nanoprobe for hydrogen sulfide detection. <i>Nanoscale</i> , 2020, 12, 20250-20257.	2.8	7
88	Nanoantennas Involved Optical Plasmonic Cavity for Improved Luminescence of Quantum Dots Light-Emitting Diodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 44760-44767.	4.0	7
89	Gold Nanocups: Colloidal Gold Nanocups with Orientation-Dependent Plasmonic Properties (Adv.) <i>Tj ETQq1 1 0.784314 rgBT /Overl</i>	11.1	4
90	Efficient oxygen reduction electrocatalyst derived from facile Fe, N <sup>+</sup> surface treatment of carbon black. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 101-109.	5.0	4

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91	Few-layer Mg-deficient borophene nanosheets: $I_{2}$ oxidation and ultrasonic delamination from $MgB_{2}$ . <i>Nanoscale</i> , 2022, 14, 4195-4203.	2.8	3
92	Efficient photocatalytic hydrogen evolution through reverse hydrogen spillover on photoactivated copper-doped mesoporous titania spheres. <i>Applied Materials Today</i> , 2022, 27, 101417.	2.3	2
93	Plasmon-assisted Chemical Reactions. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , 2016, , 155-193.	0.1	1
94	Synthesis of Porous Plasmonic Nanocrystals. , 2022, , 115-145.		0