

# Liejin Guo

## List of Publications by Year in descending order

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88  
papers

10,940  
citations

136740

32  
h-index

48187

88  
g-index

89  
all docs

89  
docs citations

89  
times ranked

13711  
citing authors

#	ARTICLE	IF	CITATIONS
1	Semiconductor-based Photocatalytic Hydrogen Generation. <i>Chemical Reviews</i> , 2010, 110, 6503-6570.	23.0	6,836
2	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. <i>Nature Photonics</i> , 2017, 11, 315-321.	15.6	580
3	Vapor-Phase Epitaxial Growth of Aligned Nanowire Networks of Cesium Lead Halide Perovskites (CsPbX <sub>3</sub> , X = Cl, Br, I). <i>Nano Letters</i> , 2017, 17, 460-466.	4.5	255
4	Boiling coal in water: Hydrogen production and power generation system with zero net CO <sub>2</sub> emission based on coal and supercritical water gasification. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12953-12967.	3.8	215
5	Single-Crystal Thin Films of Cesium Lead Bromide Perovskite Epitaxially Grown on Metal Oxide Perovskite (SrTiO <sub>3</sub> ). <i>Journal of the American Chemical Society</i> , 2017, 139, 13525-13532.	6.6	209
6	Supercritical water gasification research and development in China. <i>Journal of Supercritical Fluids</i> , 2015, 96, 144-150.	1.6	179
7	Reversible Structural Evolution of NiCoO <sub>x</sub> H <sub>y</sub> during the Oxygen Evolution Reaction and Identification of the Catalytically Active Phase. <i>ACS Catalysis</i> , 2018, 8, 1238-1247.	5.5	153
8	Hydrogen production from supercritical water gasification of chicken manure. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 22722-22731.	3.8	128
9	Enhanced bio-hydrogen production from corncob by a two-step process: Dark- and photo-fermentation. <i>Bioresource Technology</i> , 2010, 101, 2049-2052.	4.8	107
10	Supercritical water gasification of glycerol: Intermediates and kinetics. <i>Journal of Supercritical Fluids</i> , 2013, 78, 95-102.	1.6	92
11	Hydrogen production by catalytic gasification of coal in supercritical water with alkaline catalysts: Explore the way to complete gasification of coal. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19583-19592.	3.8	92
12	Experimental study on hydrogen production by lignite gasification in supercritical water fluidized bed reactor using external recycle of liquid residual. <i>Energy Conversion and Management</i> , 2017, 145, 214-219.	4.4	91
13	Industrialization prospects for hydrogen production by coal gasification in supercritical water and novel thermodynamic cycle power generation system with no pollution emission. <i>Science China Technological Sciences</i> , 2015, 58, 1989-2002.	2.0	88
14	High-Efficiency Gasification of Wheat Straw Black Liquor in Supercritical Water at High Temperatures for Hydrogen Production. <i>Energy &amp; Fuels</i> , 2017, 31, 3970-3978.	2.5	86
15	Efficient Unassisted Overall Photocatalytic Seawater Splitting on GaN-Based Nanowire Arrays. <i>Journal of Physical Chemistry C</i> , 2018, 122, 13797-13802.	1.5	85
16	Tin(IV)-Tolerant Vapor-Phase Growth and Photophysical Properties of Aligned Cesium Tin Halide Perovskite (CsSnX <sub>3</sub> ; X = Br, I) Nanowires. <i>ACS Energy Letters</i> , 2019, 4, 1045-1052.	8.8	84
17	System analysis of pulping process coupled with supercritical water gasification of black liquor for combined hydrogen, heat and power production. <i>Energy</i> , 2017, 132, 238-247.	4.5	69
18	Gasification of indole in supercritical water: Nitrogen transformation mechanisms and kinetics. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 15985-15997.	3.8	65

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19	Characterization on hydrogen production performance of a newly isolated <i>Clostridium beijerinckii</i> YA001 using xylose. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19928-19936.	3.8	52
20	Enhanced hydrogen production from cornstalk by dark- and photo-fermentation with diluted alkali-cellulase two-step hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 12193-12200.	3.8	48
21	Making of an Industry-Friendly Artificial Photosynthesis Device. <i>ACS Energy Letters</i> , 2018, 3, 2230-2231.	8.8	48
22	On the role of metal atom doping in hematite for improved photoelectrochemical properties: a comparison study. <i>RSC Advances</i> , 2016, 6, 101745-101751.	1.7	45
23	Enhanced Oil Recovery and in Situ Upgrading of Heavy Oil by Supercritical Water Injection. <i>Energy &amp; Fuels</i> , 2020, 34, 360-367.	2.5	43
24	Experimental study on oil-containing wastewater gasification in supercritical water in a continuous system. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 15871-15881.	3.8	42
25	Enhanced Bulk and Interfacial Charge Transfer Dynamics for Efficient Photoelectrochemical Water Splitting: The Case of Hematite Nanorod Arrays. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 23143-23150.	4.0	41
26	Experimental Investigation on Enhanced Oil Recovery of Extra Heavy Oil by Supercritical Water Flooding. <i>Energy &amp; Fuels</i> , 2018, 32, 1685-1692.	2.5	41
27	Hydrogen production by supercritical water gasification of coal: A reaction kinetic model including nitrogen and sulfur elements. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 31732-31744.	3.8	41
28	Kinetics study for sodium transformation in supercritical water gasification of Zhundong coal. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13869-13878.	3.8	39
29	Single-stage photo-fermentative hydrogen production from hydrolyzed straw biomass using <i>Rhodobacter sphaeroides</i> . <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13810-13820.	3.8	38
30	Effect of operation parameters on anaerobic fermentation using cow dung as a source of microorganisms. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 46-51.	3.8	37
31	Understanding divergent behaviors in the photocatalytic hydrogen evolution reaction on CdS and ZnS: a DFT based study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16862-16869.	1.3	36
32	Sulfur Transformation Characteristics and Mechanisms during Hydrogen Production by Coal Gasification in Supercritical Water. <i>Energy &amp; Fuels</i> , 2017, 31, 12046-12053.	2.5	35
33	Enhanced photo-fermentative hydrogen production by <i>Rhodobacter capsulatus</i> with pigment content manipulation. <i>Bioresource Technology</i> , 2012, 118, 490-495.	4.8	34
34	$\text{Fe}_2\text{O}_3$ quantum dots: low-cost synthesis and photocatalytic oxygen evolution capabilities. <i>RSC Advances</i> , 2016, 6, 41060-41066.	1.7	33
35	A comparison of hydrogen production among three photosynthetic bacterial strains. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 7194-7199.	3.8	32
36	Supercritical water synthesis of bimetallic catalyst and its application in hydrogen production by furfural gasification in supercritical water. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 4943-4950.	3.8	31

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37	On factors limiting the performance of photoelectrochemical CO <sub>2</sub> reduction. <i>Journal of Chemical Physics</i> , 2020, 152, 100901.	1.2	30
38	On the Theoretical and Experimental Control of Defect Chemistry and Electrical and Photoelectrochemical Properties of Hematite Nanostructures. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 2031-2041.	4.0	29
39	Photo-biological hydrogen production by a temperature-tolerant mutant of <i>Rhodobacter capsulatus</i> isolated by transposon mutagenesis. <i>Bioresource Technology</i> , 2021, 320, 124286.	4.8	29
40	Experimental investigation on the influence of the pyrolysis operating parameters upon the char reaction activity in supercritical water gasification. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13887-13895.	3.8	28
41	Nanoporous WO <sub>3</sub> films synthesized by tuning anodization conditions for photoelectrochemical water oxidation. <i>Solar Energy Materials and Solar Cells</i> , 2020, 209, 110472.	3.0	28
42	First-Principles Study on Stability and HER Activity of Noble Metal Single Atoms on TiO <sub>2</sub> : The Effect of Loading Density. <i>Journal of Physical Chemistry C</i> , 2018, 122, 2546-2553.	1.5	27
43	Photocatalytic overall water splitting without noble-metal: Decorating CoP on Al-doped SrTiO <sub>3</sub> . <i>Journal of Colloid and Interface Science</i> , 2022, 606, 491-499.	5.0	27
44	Facile Synthesis of Ultrafine Hematite Nanowire Arrays in Mixed Water/Ethanol/Acetic Acid Solution for Enhanced Charge Transport and Separation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 12594-12602.	4.0	25
45	Improved photo-Hydrogen production by transposon mutant of <i>Rhodobacter capsulatus</i> with reduced pigment. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 12229-12233.	3.8	23
46	Effect of Water Adsorption on the Interfacial Structure and Band Edge Alignment of Anatase TiO <sub>2</sub> (001)/Water by First-Principles Molecular Dynamics. <i>Journal of Physical Chemistry C</i> , 2018, 122, 26965-26973.	1.5	22
47	High NH <sub>3</sub> -N tolerance of a cheR2-deletion <i>Rhodobacter capsulatus</i> mutant for photo-fermentative hydrogen production using cornstalk. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 15833-15841.	3.8	22
48	Efficient hydrogen production in a spotlight reactor with plate photocatalyst of TiO <sub>2</sub> /NiO heterojunction supported on nickel foam. <i>Energy</i> , 2021, 228, 120578.	4.5	22
49	Enhanced biohydrogen production from cornstalk through a two-step fermentation: Dark fermentation and photofermentation. <i>International Journal of Energy Research</i> , 2017, 41, 2491-2501.	2.2	21
50	Performance simulation and thermodynamics analysis of hydrogen production based on supercritical water gasification of coal. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 28474-28485.	3.8	21
51	One-Pot Bioconversion of Lignin-Derived Substrates into Gallic Acid. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 11336-11341.	2.4	21
52	Efficient photocatalytic overall water splitting over a core-shell GaInZnON@GaInON homojunction. <i>Applied Catalysis B: Environmental</i> , 2019, 255, 117741.	10.8	20
53	Coexpression of Mo- and Fe-nitrogenase in <i>Rhodobacter capsulatus</i> enhanced its photosynthetic hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 927-934.	3.8	19
54	Overexpressing F <sub>0</sub> /F <sub>1</sub> operon of ATPase in <i>Rhodobacter sphaeroides</i> enhanced its photo-fermentative hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 6743-6751.	3.8	19

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55	Thermodynamic modeling and analysis of the heat integration and power generation in pig manure supercritical water gasification system. <i>Energy Conversion and Management</i> , 2021, 248, 114809.	4.4	19
56	Enhanced photosynthetic hydrogen production performance of <i>Rhodobacter capsulatus</i> by deactivating CBB cycle and cytochrome c oxidase. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 3176-3184.	3.8	18
57	The photosynthetic hydrogen production performance of a newly isolated <i>Rhodobacter capsulatus</i> JL1 with various carbon sources. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13860-13868.	3.8	18
58	High-Yielding Protocatechuic Acid Synthesis from $\gamma$ -Tyrosine in <i>Escherichia coli</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 14949-14954.	3.2	18
59	Experimental Investigation on Supercritical Water Gasification of Organic-Rich Shale with Low Maturity for Syngas Production. <i>Energy &amp; Fuels</i> , 2021, 35, 7657-7665.	2.5	18
60	Directly convert lignocellulosic biomass to H <sub>2</sub> without pretreatment and added cellulase by two-stage fermentation in semi-continuous modes. <i>Renewable Energy</i> , 2021, 170, 866-874.	4.3	18
61	Viscosity Measurements of the H <sub>2</sub> -CO <sub>2</sub> , H <sub>2</sub> -CO <sub>2</sub> -CH <sub>4</sub> , and H <sub>2</sub> -H <sub>2</sub> O Mixtures and the H <sub>2</sub> -CO <sub>2</sub> -CH <sub>4</sub> -CO <sub>2</sub> -H <sub>2</sub> O System at 280-924 K and 0.7-33.1 MPa with a Capillary Apparatus. <i>Journal of Chemical &amp; Engineering Data</i> , 2020, 65, 3834-3847.	1.0	16
62	Experiment and simulation study on mechanism and solution of ash agglomeration in supercritical water gasification of coal for hydrogen production. <i>Fuel</i> , 2021, 290, 120016.	3.4	16
63	Enhanced biohydrogen production by an ammonium-tolerant <i>Rhodobacter capsulatus</i> from sugarcane bagasse. <i>Fuel</i> , 2021, 300, 121009.	3.4	16
64	Density Data of Two (H <sub>2</sub> + CO <sub>2</sub> ) Mixtures and a (H <sub>2</sub> + Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38) Pressures up to 25 MPa. <i>Journal of Chemical &amp; Engineering Data</i> , 2019, 64, 1693-1704.	1.0	15
65	High-Yielding Terpene-Based Biofuel Production in <i>Rhodobacter capsulatus</i> . <i>ACS Synthetic Biology</i> , 2021, 10, 1545-1552.	1.9	15
66	Enhancement of Hydrogen Production through a Mixed Culture of <i>Enterobacter cloacae</i> and <i>Rhodobacter sphaeroides</i> . <i>Energy &amp; Fuels</i> , 2017, 31, 7234-7240.	2.5	13
67	Disruption of multidrug resistance protein gene of <i>Rhodobacter capsulatus</i> results in improved photoheterotrophic hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 13031-13037.	3.8	12
68	Overexpressing atpXF enhanced photo-fermentative hydrogen production performance of <i>Rhodobacter sphaeroides</i> . <i>International Journal of Hydrogen Energy</i> , 2017, 42, 9641-9649.	3.8	12
69	Effect of cornstalk hydrolysis on photo-fermentative hydrogen production by <i>R. capsulatus</i> . <i>International Journal of Hydrogen Energy</i> , 2019, 44, 11593-11601.	3.8	12
70	Controlled Aqueous Growth of Hematite Nanoplate Arrays Directly on Transparent Conductive Substrates and Their Photoelectrochemical Properties. <i>Chemistry - an Asian Journal</i> , 2016, 11, 2328-2334.	1.7	11
71	Density Measurements of the H <sub>2</sub> -CO <sub>2</sub> -CH <sub>4</sub> -CO <sub>2</sub> -H <sub>2</sub> O System by the Isochoric Method at 722-930 K and 15.4-30.3 MPa. <i>Journal of Chemical &amp; Engineering Data</i> , 2019, 64, 4024-4036.	1.0	11
72	Combining experiment and density functional theory to study the mechanism of thermochemical sulfate reduction by hydrogen in supercritical water. <i>Journal of Molecular Liquids</i> , 2021, 330, 115654.	2.3	11

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73	Hydrogen production by supercritical water gasification of methylhydrazine in continuous system. <i>Journal of Water Process Engineering</i> , 2021, 42, 102037.	2.6	11
74	Phenyl-incorporated carbon nitride photocatalyst with extended visible-light-absorption for enhanced hydrogen production from water splitting. <i>Journal of Colloid and Interface Science</i> , 2022, 622, 494-502.	5.0	10
75	First-principles study on absolute band edge positions for II-VI semiconductors at (110) surface. <i>Chemical Physics Letters</i> , 2011, 513, 72-76.	1.2	9
76	Enhanced hydrogen production performance of cbbR & pycA inactivated <i>R.sphaeroides</i> mutant by improving the ammonium tolerance. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18142-18150.	3.8	9
77	Variation of pore structure in Zhundong coal particle with stepped K <sub>2</sub> CO <sub>3</sub> loading during supercritical water gasification. <i>Fuel</i> , 2021, 305, 121457.	3.4	9
78	Thermal conductivity measurements of the H <sub>2</sub> /CO <sub>2</sub> mixture using the short-hot-wire method at 323.15±0.05 K and 2.14±0.37 MPa. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 31213-31224.	3.8	8
79	CRISPR/Cas12a-mediated genome engineering in the photosynthetic bacterium <i>Rhodobacter capsulatus</i> . <i>Microbial Biotechnology</i> , 2021, 14, 2700-2710.	2.0	7
80	Effects of Alkaline Metals on the Reactivity of the Carbon Structure after Partial Supercritical Water Gasification of Coal. <i>Energy &amp; Fuels</i> , 2020, 34, 13916-13923.	2.5	7
81	A First-Principles Investigation on Microscopic Atom Distribution and Configuration-Averaged Properties in Cd <sub>1-x</sub> Zn <sub>x</sub> S Solid Solutions. <i>ChemPhysChem</i> , 2014, 15, 3125-3132.	1.0	6
82	Something new under the sun for ultra low-cost single-junction PhotoAnodes for highly efficient photocatalytic water splitting. <i>Solar Energy Materials and Solar Cells</i> , 2019, 201, 110083.	3.0	6
83	First-Principles Investigation of $\text{FeOOH}$ for Hydrogen Evolution: Identifying Reactive Sites and Boosting Surface Reactions. <i>Chemistry - A European Journal</i> , 2020, 26, 7118-7123.	1.7	6
84	Thermodynamic analysis of the superiority of the direct mass transfer design in the supercritical water gasification system. <i>Energy</i> , 2022, 244, 122722.	4.5	5
85	<i>PVT</i> Measurements of the H <sub>2</sub> -CO <sub>2</sub> -CH <sub>4</sub> -CO <sub>2</sub> -H <sub>2</sub> O System at 740-939 K and 18.1-34.7 MPa with an Isochoric Apparatus and the Development of a Virial Equation of State. <i>Journal of Chemical &amp; Engineering Data</i> , 2020, 65, 4881-4891.	1.0	4
86	A Review of Experimental Researches on the Thermophysical Properties of Hydrogen-Containing Mixtures at High Temperatures and High Pressures. <i>Journal of Chemical &amp; Engineering Data</i> , 2021, 66, 3361-3385.	1.0	4
87	Experimental measurements on chemical reaction and thermal conductivity of the H <sub>2</sub> /CO <sub>2</sub> /CO/CH <sub>4</sub> /H <sub>2</sub> O system using the short-hot-wire method at 664-915 K and 9.2-22.2 MPa. <i>International Journal of Heat and Mass Transfer</i> , 2021, 177, 121554.	2.5	4
88	Enhanced photo fermentative H <sub>2</sub> production from cornstark by acid-tolerant <i>R. capsulatus</i> mutation. <i>Biomass Conversion and Biorefinery</i> , 2024, 14, 4677-4686.	2.9	1