

# Jieyuan Li

## List of Publications by Year in descending order

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74  
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74  
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4607  
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#	ARTICLE	IF	CITATIONS
1	Threeâ€”One Oxygen Vacancies: Whole Visibleâ€”Spectrum Absorption, Efficient Charge Separation, and Surface Site Activation for Robust CO <sub>2</sub> Photoreduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3880-3884.	14.3	483
2	Rare-Earth Single-Atom Laâ€”N Charge-Transfer Bridge on Carbon Nitride for Highly Efficient and Selective Photocatalytic CO <sub>2</sub> Reduction. <i>ACS Nano</i> , 2020, 14, 15841-15852.	15.0	283
3	Identification of Halogen-Associated Active Sites on Bismuth-Based Perovskite Quantum Dots for Efficient and Selective CO <sub>2</sub> -to-CO Photoreduction. <i>ACS Nano</i> , 2020, 14, 13103-13114.	15.0	282
4	Nitrogen defect structure and NO+ intermediate promoted photocatalytic NO removal on H <sub>2</sub> treated g-C <sub>3</sub> N <sub>4</sub> . <i>Chemical Engineering Journal</i> , 2020, 379, 122282.	12.9	260
5	Visible-light-induced charge transfer pathway and photocatalysis mechanism on Bi semimetal@defective BiOBr hierarchical microspheres. <i>Journal of Catalysis</i> , 2018, 357, 41-50.	6.4	246
6	Highly enhanced visible light photocatalysis and in situ FT-IR studies on Bi metal@defective BiOCl hierarchical microspheres. <i>Applied Catalysis B: Environmental</i> , 2018, 225, 218-227.	20.6	238
7	Synergistic Effect of Cu Single Atoms and Auâ€”Cu Alloy Nanoparticles on TiO <sub>2</sub> for Efficient CO <sub>2</sub> Photoreduction. <i>ACS Nano</i> , 2021, 15, 14453-14464.	15.0	236
8	Local spatial charge separation and proton activation induced by surface hydroxylation promoting photocatalytic hydrogen evolution of polymeric carbon nitride. <i>Nano Energy</i> , 2018, 50, 383-392.	16.4	226
9	The Spatially Oriented Charge Flow and Photocatalysis Mechanism on Internal van der Waals Heterostructures Enhanced g-C <sub>3</sub> N <sub>4</sub> . <i>ACS Catalysis</i> , 2018, 8, 8376-8385.	11.5	219
10	Highly Efficient Performance and Conversion Pathway of Photocatalytic NO Oxidation on SrO-Clusters@Amorphous Carbon Nitride. <i>Environmental Science &amp; Technology</i> , 2017, 51, 10682-10690.	10.2	203
11	Bi metal prevents the deactivation of oxygen vacancies in Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> for stable and efficient photocatalytic NO abatement. <i>Applied Catalysis B: Environmental</i> , 2020, 264, 118545.	20.6	197
12	Steering the interlayer energy barrier and charge flow via bioriented transportation channels in g-C <sub>3</sub> N <sub>4</sub> : Enhanced photocatalysis and reaction mechanism. <i>Journal of Catalysis</i> , 2017, 352, 351-360.	6.4	173
13	Facet-dependent interfacial charge separation and transfer in plasmonic photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2018, 226, 269-277.	20.6	166
14	Probing ring-opening pathways for efficient photocatalytic toluene decomposition. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3366-3374.	10.4	166
15	Directional electron delivery via a vertical channel between g-C <sub>3</sub> N <sub>4</sub> layers promotes photocatalytic efficiency. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9358-9364.	10.4	159
16	Promoting ring-opening efficiency for suppressing toxic intermediates during photocatalytic toluene degradation via surface oxygen vacancies. <i>Science Bulletin</i> , 2019, 64, 669-678.	9.1	159
17	Transformation pathway and toxic intermediates inhibition of photocatalytic NO removal on designed Bi metal@defective Bi <sub>2</sub> O <sub>2</sub> SiO <sub>3</sub> . <i>Applied Catalysis B: Environmental</i> , 2019, 241, 187-195.	20.6	158
18	Tailoring the rate-determining step in photocatalysis via localized excess electrons for efficient and safe air cleaning. <i>Applied Catalysis B: Environmental</i> , 2018, 239, 187-195.	20.6	145

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19	Reactant activation and photocatalysis mechanisms on Bi-metal@Bi <sub>2</sub> GeO <sub>5</sub> with oxygen vacancies: A combined experimental and theoretical investigation. <i>Chemical Engineering Journal</i> , 2019, 370, 1366-1375.	12.9	141
20	Enhancing ROS generation and suppressing toxic intermediate production in photocatalytic NO oxidation on O/Ba co-functionalized amorphous carbon nitride. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 938-946.	20.6	134
21	The activation of reactants and intermediates promotes the selective photocatalytic NO conversion on electron-localized Sr-intercalated g-C <sub>3</sub> N <sub>4</sub> . <i>Applied Catalysis B: Environmental</i> , 2018, 232, 69-76.	20.6	125
22	Synergistic effects of crystal structure and oxygen vacancy on Bi <sub>2</sub> O <sub>3</sub> polymorphs: intermediates activation, photocatalytic reaction efficiency, and conversion pathway. <i>Science Bulletin</i> , 2020, 65, 467-476.	9.1	108
23	Directional electron delivery and enhanced reactants activation enable efficient photocatalytic air purification on amorphous carbon nitride co-functionalized with O/La. <i>Applied Catalysis B: Environmental</i> , 2019, 242, 19-30.	20.6	103
24	Unraveling the mechanism of binary channel reactions in photocatalytic formaldehyde decomposition for promoted mineralization. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118130.	20.6	99
25	Synergistic Photocatalytic Decomposition of a Volatile Organic Compound Mixture: High Efficiency, Reaction Mechanism, and Long-Term Stability. <i>ACS Catalysis</i> , 2020, 10, 7230-7239.	11.5	98
26	Cu supported on polymeric carbon nitride for selective CO <sub>2</sub> reduction into CH <sub>4</sub> : a combined kinetics and thermodynamics investigation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17014-17021.	10.4	90
27	The pivotal roles of spatially separated charge localization centers on the molecules activation and photocatalysis mechanism. <i>Applied Catalysis B: Environmental</i> , 2020, 262, 118251.	20.6	89
28	The importance of intermediates ring-opening in preventing photocatalyst deactivation during toluene decomposition. <i>Applied Catalysis B: Environmental</i> , 2020, 272, 118977.	20.6	84
29	Mechanisms of Interfacial Charge Transfer and Photocatalytic NO Oxidation on BiOBr/SnO <sub>2</sub> p-n Heterojunctions. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43741-43749.	8.2	77
30	Bi quantum dots implanted 2D C-doped BiOCl nanosheets: Enhanced visible light photocatalysis efficiency and reaction pathway. <i>Chinese Journal of Catalysis</i> , 2020, 41, 1430-1438.	14.3	77
31	Ba-vacancy induces semiconductor-like photocatalysis on insulator BaSO <sub>4</sub> . <i>Applied Catalysis B: Environmental</i> , 2019, 253, 293-299.	20.6	72
32	Tuning the reaction pathway of photocatalytic NO oxidation process to control the secondary pollution on monodisperse Au nanoparticles@g-C <sub>3</sub> N <sub>4</sub> . <i>Chemical Engineering Journal</i> , 2019, 378, 122184.	12.9	68
33	Tailoring Active Sites via Synergy between Graphitic and Pyridinic N for Enhanced Catalytic Efficiency of a Carbocatalyst. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 19861-19869.	8.2	62
34	Light-Induced Generation and Regeneration of Oxygen Vacancies in BiSbO <sub>4</sub> for Sustainable Visible Light Photocatalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 47984-47991.	8.2	61
35	Subnanometric alkaline-earth oxide clusters for sustainable nitrate to ammonia photosynthesis. <i>Nature Communications</i> , 2022, 13, 1098.	13.1	60
36	Nature-inspired CaCO <sub>3</sub> loading TiO <sub>2</sub> composites for efficient and durable photocatalytic mineralization of gaseous toluene. <i>Science Bulletin</i> , 2020, 65, 1626-1634.	9.1	59

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37	Single-Atom Ru-Implanted Metal-Organic Framework/MnO <sub>2</sub> for the Highly Selective Oxidation of NO <sub>x</sub> by Plasma Activation. ACS Catalysis, 2020, 10, 10185-10196.	11.5	58
38	Unveiling the unconventional roles of methyl number on the ring-opening barrier in photocatalytic decomposition of benzene, toluene and o-xylene. Applied Catalysis B: Environmental, 2020, 278, 119318.	20.6	57
39	Enhanced CO <sub>2</sub> capture on graphene via N, S dual-doping. Applied Surface Science, 2017, 399, 420-425.	6.2	53
40	Ultrathin Two-Dimensional Bi-Based photocatalysts: Synthetic strategies, surface defects, and reaction mechanisms. Chemical Engineering Journal, 2021, 417, 129305.	12.9	52
41	In situ loading of MoO <sub>3</sub> clusters on ultrathin Bi <sub>2</sub> MoO <sub>6</sub> nanosheets for synergistically enhanced photocatalytic NO abatement. Applied Catalysis B: Environmental, 2021, 292, 120159.	20.6	51
42	The high selectivity for benzoic acid formation on Ca <sub>2</sub> Sb <sub>2</sub> O <sub>7</sub> enables efficient and stable toluene mineralization. Applied Catalysis B: Environmental, 2020, 271, 118948.	20.6	48
43	Surface Lattice Oxygen Activation on Sr <sub>2</sub> Sb <sub>2</sub> O <sub>7</sub> Enhances the Photocatalytic Mineralization of Toluene: from Reactant Activation, Intermediate Conversion to Product Desorption. ACS Applied Materials & Interfaces, 2021, 13, 5153-5164.	8.2	46
44	Three-Coordinate Oxygen Vacancies: Whole Visible-Spectrum Absorption, Efficient Charge Separation, and Surface Site Activation for Robust CO <sub>2</sub> Photoreduction. Angewandte Chemie, 2019, 131, 3920-3924.	2.0	45
45	Interfacial activation of reactants and intermediates on CaSO <sub>4</sub> insulator-based heterostructure for efficient photocatalytic NO removal. Chemical Engineering Journal, 2020, 390, 124609.	12.9	39
46	Graphene oxide mediated co-generation of C-doping and oxygen defects in Bi <sub>2</sub> WO <sub>6</sub> nanosheets: a combined DRIFTS and DFT investigation. Nanoscale, 2019, 11, 20562-20570.	5.7	37
47	Selective breakage of C-H bonds in the key oxidation intermediates of gaseous formaldehyde on self-doped CaSn(OH) <sub>6</sub> cubes for safe and efficient photocatalysis. Applied Catalysis B: Environmental, 2020, 277, 119214.	20.6	35
48	Promoted reactants activation and charge separation leading to efficient photocatalytic activity on phosphate/potassium co-functionalized carbon nitride. Chinese Chemical Letters, 2019, 30, 875-880.	9.1	34
49	SrTiO <sub>3</sub> /BiOI heterostructure: Interfacial charge separation, enhanced photocatalytic activity, and reaction mechanism. Chinese Journal of Catalysis, 2020, 41, 710-718.	14.3	32
50	Photochemical Transformation Pathways of Nitrates from Photocatalytic NO <sub>x</sub> Oxidation: Implications for Controlling Secondary Pollutants. Environmental Science and Technology Letters, 2021, 8, 873-877.	8.8	32
51	Enhanced Photocatalytic VOCs Mineralization via Special Ga-O-H Charge Transfer Channel in $\delta$ -Ga <sub>2</sub> O <sub>3</sub> /MgAl-LDH Heterojunction. ACS ES&T Engineering, 2021, 1, 501-511.	7.7	32
52	Optimizing the Electronic Structure of BiOBr Nanosheets via Combined Ba Doping and Oxygen Vacancies for Promoted Photocatalysis. Journal of Physical Chemistry C, 2021, 125, 8597-8605.	3.2	31
53	Efficient photocatalytic toluene degradation over heterojunction of GQDs@BiOCl ultrathin nanosheets with selective benzoic acid activation. Journal of Hazardous Materials, 2021, 420, 126577.	12.6	30
54	Promote the activation and ring opening of intermediates for stable photocatalytic toluene degradation over Zn-Ti-LDH. Journal of Colloid and Interface Science, 2022, 606, 1435-1444.	9.6	29

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55	An atomic insight into BiOBr/La <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> n heterojunctions: interfacial charge transfer pathway and photocatalysis mechanism. <i>Catalysis Science and Technology</i> , 2020, 10, 826-834.	4.2	28
56	Photocatalytic reaction mechanisms at a gas/solid interface for typical air pollutant decomposition. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20184-20210.	10.4	28
57	Porous Mn-doped Co <sub>3</sub> O <sub>4</sub> nanosheets: Gas sensing performance and interfacial mechanism investigation with In situ DRIFTS. <i>Sensors and Actuators B: Chemical</i> , 2022, 353, 131155.	8.0	27
58	Enhanced plasmonic photocatalytic disinfection on noble-metal-free bismuth nanospheres/graphene nanocomposites. <i>Catalysis Science and Technology</i> , 2018, 8, 4600-4603.	4.2	24
59	Promote reactants activation and key intermediates formation for facilitated toluene photodecomposition via Ba active sites construction. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120489.	20.6	23
60	Identification of deactivation-resistant origin of In(OH) <sub>3</sub> for efficient and durable photodegradation of benzene, toluene and their mixtures. <i>Journal of Hazardous Materials</i> , 2021, 416, 126208.	12.6	21
61	Controlling the secondary pollutant on B-doped g-C <sub>3</sub> N <sub>4</sub> during photocatalytic NO removal: a combined DRIFTS and DFT investigation. <i>Catalysis Science and Technology</i> , 2019, 9, 4531-4537.	4.2	20
62	High-surface energy enables efficient and stable photocatalytic toluene degradation via the suppression of intermediate byproducts. <i>Catalysis Science and Technology</i> , 2019, 9, 2952-2959.	4.2	20
63	Quantifying the activation energies of ROS-induced NO <sub>x</sub> conversion: Suppressed toxic intermediates generation and clarified reaction mechanism. <i>Chemical Engineering Journal</i> , 2019, 375, 122026.	12.9	19
64	Generation and transformation of ROS on g-C <sub>3</sub> N <sub>4</sub> for efficient photocatalytic NO removal: A combined in situ DRIFTS and DFT investigation. <i>Chinese Journal of Catalysis</i> , 2018, 39, 1695-1703.	14.3	18
65	Optimizing the Gas/Solid Photocatalytic Reactions for Air Purification. <i>ACS ES&amp;T Engineering</i> , 2022, 2, 1103-1115.	7.7	18
66	Promotion mechanism of pyridine N-doped carbocatalyst for SO <sub>2</sub> oxidation. <i>RSC Advances</i> , 2016, 6, 86316-86323.	3.7	17
67	Chemical Discrimination of Benzene Series and Molecular Recognition of the Sensing Process over Ti-Doped Co <sub>3</sub> O <sub>4</sub> . <i>ACS Sensors</i> , 2022, 7, 1757-1765.	8.1	17
68	Light-induced secondary hydroxyl defects in Sr <sub>1-x</sub> Sn(OH) <sub>6</sub> enable sustained and efficient photocatalytic toluene mineralization. <i>Chemical Engineering Journal</i> , 2022, 427, 131764.	12.9	15
69	OH/Na co-functionalized carbon nitride: directional charge transfer and enhanced photocatalytic oxidation ability. <i>Catalysis Science and Technology</i> , 2020, 10, 529-535.	4.2	13
70	Self-doped Br in Bi <sub>5</sub> O <sub>7</sub> Br ultrathin nanotubes: Efficient photocatalytic NO purification and mechanism investigation. <i>Chinese Chemical Letters</i> , 2022, 33, 3161-3166.	9.1	13
71	Promotion mechanism of OH group intercalation for NO <sub>x</sub> purification on BiOI photocatalyst. <i>Nanoscale</i> , 2021, 13, 20601-20608.	5.7	10
72	Enhanced Reactant Activation and Transformation for Efficient Photocatalytic Acetone Degradation on SnO <sub>2</sub> via Hf Doping. <i>Advanced Sustainable Systems</i> , 2021, 5, 2100115.	5.4	8

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73	Unraveling the Unique Role of Methyl Position on the Ring-Opening Barrier in Photocatalytic Decomposition of Xylene Isomers. ACS Catalysis, 2022, 12, 8363-8371.	11.5	8
74	Alkali/alkaline-earth metal intercalated g-C <sub>3</sub> N <sub>4</sub> induced charge redistribution and optimized photocatalysis: status and challenges. JPhys Energy, 2021, 3, 032008.	5.4	7