Junling Lu

List of Publications by Year
in descending order

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115 papers	12,605 citations	22153 59 h-index	24258 110 g-index
120 all docs	120 docs citations	120 times ranked	13090 citing authors

#	Article	IF	Citations
1	Ultra-thin nickel oxide overcoating of noble metal catalysts for directing selective hydrogenation of nitriles to secondary amines. Catalysis Today, 2023, 410, 253-263.	4.4	3
2	Inverse single-site Fe1(OH)X/Pt(111) model catalyst for preferential oxidation of CO in H2. Nano Research, 2022, 15, 709-715.	10.4	9
3	Tuning the Interaction between Ruthenium Single Atoms and the Second Coordination Sphere for Efficient Nitrogen Photofixation. Advanced Functional Materials, 2022, 32, .	14.9	22
4	Atomic Lego Catalysts Synthesized by Atomic Layer Deposition. Accounts of Materials Research, 2022, 3, 358-368.	11.7	28
5	Tuning the Interaction between Ruthenium Single Atoms and the Second Coordination Sphere for Efficient Nitrogen Photofixation (Adv. Funct. Mater. 12/2022). Advanced Functional Materials, 2022, 32, .	14.9	0
6	In Situ Spectroscopic Characterization and Theoretical Calculations Identify Partially Reduced ZnO_{1â^'x}/Cu Interfaces for Methanol Synthesis from CO₂. Angewandte Chemie, 2022, 134, .	2.0	6
7	In Situ Spectroscopic Characterization and Theoretical Calculations Identify Partially Reduced ZnO_{1â^'x}/Cu Interfaces for Methanol Synthesis from CO₂. Angewandte Chemie - International Edition, 2022, 61, .	13.8	34
8	Waterproof surface passivation of K₂GeF₆:Mn⁴⁺ by a dense Al₂O₃ layer via atomic layer deposition. Journal of Materials Chemistry C, 2022, 10, 9867-9874.	5.5	8
9	Integration of Pd nanoparticles with engineered pore walls in MOFs for enhanced catalysis. CheM, 2021, 7, 686-698.	11.7	146
10	A Perspective on New Opportunities in Atom-by-Atom Synthesis of Heterogeneous Catalysts Using Atomic Layer Deposition. Catalysis Letters, 2021, 151, 1535-1545.	2.6	30
11	Synergistic construction of bifunctional and stable Pt/HZSM-5-based catalysts for efficient catalytic cracking of n-butane. Nanoscale, 2021, 13, 5103-5114.	5.6	14
12	Size-dependent strong metalâ€“support interaction in Pd/ZnO catalysts for hydrogenation of CO₂to methanol. Catalysis Science and Technology, 2021, 11, 4398-4405.	4.1	19
13	Effects of the morphology and heteroatom doping of CeO₂ support on the hydrogenation activity of Pt single-atoms. Catalysis Science and Technology, 2021, 11, 2844-2851.	4.1	23
14	Sulfur stabilizing metal nanoclusters on carbon at high temperatures. Nature Communications, 2021, 12, 3135.	12.8	104
15	Single-Atom Catalysts Designed and Prepared by the Atomic Layer Deposition Technique. ACS Catalysis, 2021, 11, 7018-7059.	11.2	106
16	Integration of Bimetallic Electronic Synergy with Oxide Site Isolation Improves the Selective Hydrogenation of Acetylene. Angewandte Chemie - International Edition, 2021, 60, 19324-19330.	13.8	50
17	Zeroâ€Valent Palladium Singleâ€Atoms Catalysts Confined in Black Phosphorus for Efficient Semiâ€Hydrogenation. Advanced Materials, 2021, 33, e2008471.	21.0	55
18	Synergizing metalâ€“support interactions and spatial confinement boosts dynamics of atomic nickel for hydrogenations. Nature Nanotechnology, 2021, 16, 1141-1149.	31.5	165

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19	Integration of Bimetallic Electronic Synergy with Oxide Site Isolation Improves the Selective Hydrogenation of Acetylene. Angewandte Chemie, 2021, 133, 19473-19479.	2.0	3
20	Support-Induced unusual size dependence of Pd catalysts in chemoselective hydrogenation of para-chloronitrobenzene. Journal of Catalysis, 2021, 400, 173-183.	6.2	32
21	Exploring the phase transformation in ZnO/Cu(111) model catalysts in CO2 hydrogenation. Journal of Energy Chemistry, 2021, 60, 150-155.	12.9	16
22	Interfacial Proton Transfer for Hydrogen Evolution at the Sub-Nanometric Platinum/Electrolyte Interface. ACS Applied Materials & Interfaces, 2021, 13, 47252-47261.	8.0	4
23	Bimetallic monolayer catalyst breaks the activityâ€“selectivity trade-off on metal particle size for efficient chemoselective hydrogenations. Nature Catalysis, 2021, 4, 840-849.	34.4	102
24	Boosting Activity and Stability of Metal Single-Atom Catalysts via Regulation of Coordination Number and Local Composition. Journal of the American Chemical Society, 2021, 143, 18854-18858.	13.7	93
25	Synthesis of Quasiâ€Bilayer Subnano Metalâ€Oxide Interfacial Cluster Catalysts for Advanced Catalysis. Small, 2020, 16, e2005571.	10.0	10
26	A Review on Particle Size Effect in <scp>Metalâ€Catalyzed</scp> Heterogeneous Reactions. Chinese Journal of Chemistry, 2020, 38, 1422-1444.	4.9	69
27	Accelerating Chemo- and Regioselective Hydrogenation of Alkynes over Bimetallic Nanoparticles in a Metalâ€“Organic Framework. ACS Catalysis, 2020, 10, 7753-7762.	11.2	80
28	Uncovering near-free platinum single-atom dynamics during electrochemical hydrogen evolution reaction. Nature Communications, 2020, 11, 1029.	12.8	379
29	Copper Catalysts in Semihydrogenation of Acetylene: From Single Atoms to Nanoparticles. ACS Catalysis, 2020, 10, 3495-3504.	11.2	115
30	Atomic-scale engineering of metalâ€“oxide interfaces for advanced catalysis using atomic layer deposition. Catalysis Science and Technology, 2020, 10, 2695-2710.	4.1	25
31	Tuning the Photoresponse of Nanoâ€Heterojunction: Pressureâ€Induced Inverse Photoconductance in Functionalized WO₃ Nanocuboids. Advanced Science, 2019, 6, 1901132.	11.2	28
32	Tailoring of the Proximity of Platinum Single Atoms on CeO₂ Using Phosphorus Boosts the Hydrogenation Activity. ACS Catalysis, 2019, 9, 8404-8412.	11.2	95
33	Quasi Pd1Ni single-atom surface alloy catalyst enables hydrogenation of nitriles to secondary amines. Nature Communications, 2019, 10, 4998.	12.8	90
34	Highly Active and Stable Metal Single-Atom Catalysts Achieved by Strong Electronic Metalâ€“Support Interactions. Journal of the American Chemical Society, 2019, 141, 14515-14519.	13.7	455
35	Atomically dispersed iron hydroxide anchored on Pt for preferential oxidation of CO in H2. Nature, 2019, 565, 631-635.	27.8	423
36	Atomically dispersed platinum supported on curved carbon supports for efficient electrocatalytic hydrogen evolution. Nature Energy, 2019, 4, 512-518.	39.5	756

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37	Insight of the stability and activity of platinum single atoms on ceria. Nano Research, 2019, 12, 1401-1409.	10.4	121
38	Precise Tailoring of Ir-FeO_x Interfaces for Improved Catalytic Performance in Preferential Oxidation of Carbon Monoxide in Hydrogen. Journal of Physical Chemistry C, 2019, 123, 29262-29270.	3.1	17
39	Disentangling the size-dependent geometric and electronic effects of palladium nanocatalysts beyond selectivity. Science Advances, 2019, 5, eaat6413.	10.3	187
40	The mechanistic effect over the substrate in a square type atomic layer deposition reactor. International Journal of Modern Physics B, 2019, 33, 1940018.	2.0	5
41	Toward Understanding of the Support Effect on Pd₁ Single-Atom-Catalyzed Hydrogenation Reactions. Journal of Physical Chemistry C, 2019, 123, 7922-7930.	3.1	63
42	Using Pd as a Cocatalyst on GaNâ€“ZnO Solid Solution for Visible-Light-Driven Overall Water Splitting. Catalysis Letters, 2018, 148, 933-939.	2.6	26
43	Pressure-induced structural and semiconductor-semiconductor transitions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">g</mml:mi><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub><mml:mi	3.2	20
44	Understanding the underlying mechanism of improved selectivity in pd1 single-atom catalyzed hydrogenation reaction. Journal of Catalysis, 2018, 366, 70-79.	6.2	70
45	Atomic Layer Deposition: A Gas Phase Route to Bottom-up Precise Synthesis of Heterogeneous Catalyst. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2018, 34, 1334-1357.	4.9	26
46	Singlet Oxygen-Engaged Selective Photo-Oxidation over Pt Nanocrystals/Porphyrinic MOF: The Roles of Photothermal Effect and Pt Electronic State. Journal of the American Chemical Society, 2017, 139, 2035-2044.	13.7	616
47	Enhancing both selectivity and coking-resistance of a single-atom Pd1/C3N4 catalyst for acetylene hydrogenation. Nano Research, 2017, 10, 1302-1312.	10.4	220
48	Pressure-induced structural evaluation and insulator-metal transition in the mixed spinel ferrite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">Z</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mrow><mml:mn>0.2</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">g</mml:mi><mml:mrow><mml:mn>0.8</mml:mn></mml:mrow></mml:msub><mml:mi	3.2	21
49	Metalâ€“Organic Frameworkâ€Templated Catalyst: Synergy in Multiple Sites for Catalytic CO₂ Fixation. ChemSusChem, 2017, 10, 1898-1903.	6.8	91
50	Water-Mediated Marsâ€“Van Krevelen Mechanism for CO Oxidation on Ceria-Supported Single-Atom Pt₁ Catalyst. ACS Catalysis, 2017, 7, 887-891.	11.2	407
51	Coating Pd/Al 2 O 3 catalysts with FeO x enhances both activity and selectivity in 1,3-butadiene hydrogenation. Chinese Journal of Catalysis, 2017, 38, 1581-1587.	14.0	16
52	Bottom-up precise synthesis of stable platinum dimers on graphene. Nature Communications, 2017, 8, 1070.	12.8	466
53	Acidic alumina overcoating on platinum nanoparticles: Close metalâ€“acid proximity enhances bifunctionality for glycerol hydrogenolysis. Chinese Journal of Catalysis, 2017, 38, 1237-1244.	14.0	18
54	Atomicâ€Level Insight into Optimizing the Hydrogen Evolution Pathway over a Co₁â€N₄ Singleâ€Site Photocatalyst. Angewandte Chemie, 2017, 129, 12359-12364.	2.0	36

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55	Atomicâ€Level Insight into Optimizing the Hydrogen Evolution Pathway over a Co₁â€N₄ Singleâ€Site Photocatalyst. Angewandte Chemie - International Edition, 2017, 56, 12191-12196.	13.8	269
56	Boosting selective oxidation of cyclohexane over a metalâ€“organic framework by hydrophobicity engineering of pore walls. Chemical Communications, 2017, 53, 10026-10029.	4.1	71
57	Size-dependent catalytic activity over carbon-supported palladium nanoparticles in dehydrogenation of formic acid. Journal of Catalysis, 2017, 352, 371-381.	6.2	132
58	FeOx Coating on Pd/C Catalyst by Atomic Layer Deposition Enhances the Catalytic Activity in Dehydrogenation of Formic Acid. Chinese Journal of Chemical Physics, 2017, 30, 319-324.	1.3	3
59	Well-Defined Nanostructures for Catalysis by Atomic Layer Deposition. Studies in Surface Science and Catalysis, 2017, 177, 643-676.	1.5	9
60	Sub-nanometer-thick Al2O3 Overcoat Remarkably Enhancing Thermal Stability of Supported Gold Catalysts. Chinese Journal of Chemical Physics, 2016, 29, 571-577.	1.3	2
61	Atomic layer depositionâ€”Sequential self-limiting surface reactions for advanced catalyst â€œbottom-upâ€• synthesis. Surface Science Reports, 2016, 71, 410-472.	7.2	252
62	Revisiting the Au Particle Size Effect on TiO₂-Coated Au/TiO₂ Catalysts in CO Oxidation Reaction. Journal of Physical Chemistry C, 2016, 120, 9174-9183.	3.1	76
63	Activating Edge Sites on Pd Catalysts for Selective Hydrogenation of Acetylene via Selective Ga₂O₃ Decoration. ACS Catalysis, 2016, 6, 3700-3707.	11.2	97
64	Covalently Connected Carbon Nanostructures for Current Collectors in Both the Cathode and Anode of Liâ€“S Batteries. Advanced Materials, 2016, 28, 9094-9102.	21.0	184
65	Atomic layer deposition on Pd nanocrystals for forming Pd-TiO 2 interface toward enhanced CO oxidation. Progress in Natural Science: Materials International, 2016, 26, 289-294.	4.4	18
66	Carbon Nanostructures: Covalently Connected Carbon Nanostructures for Current Collectors in Both the Cathode and Anode of Liâ€“S Batteries (Adv. Mater. 41/2016). Advanced Materials, 2016, 28, 9016-9016.	21.0	5
67	Core-shell Si@TiO2 nanosphere anode by atomic layer deposition for Li-ion batteries. Journal of Power Sources, 2016, 308, 75-82.	7.8	93
68	Precisely Applying TiO₂ Overcoat on Supported Au Catalysts Using Atomic Layer Deposition for Understanding the Reaction Mechanism and Improved Activity in CO Oxidation. Journal of Physical Chemistry C, 2016, 120, 478-486.	3.1	66
69	Boosting Photocatalytic Water Splitting: Interfacial Charge Polarization in Atomically Controlled Coreâ€“Shell Cocatalysts. Angewandte Chemie - International Edition, 2015, 54, 14810-14814.	13.8	131
70	Synthesis of palladium nanoparticles on TiO₂(110) using a beta-diketonate precursor. Physical Chemistry Chemical Physics, 2015, 17, 6470-6477.	2.8	7
71	Atomic-scale cation dynamics in a monolayer VO_X/Î±-Fe₂O₃ catalyst. RSC Advances, 2015, 5, 103834-103840.	3.6	22
72	Precisely-controlled synthesis of Au@Pd coreâ€“shell bimetallic catalyst via atomic layer deposition for selective oxidation of benzyl alcohol. Journal of Catalysis, 2015, 324, 59-68.	6.2	133

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73	Polar Group and Defect Engineering in a Metalâ€“Organic Framework: Synergistic Promotion of Carbon Dioxide Sorption and Conversion. ChemSusChem, 2015, 8, 878-885.	6.8	193
74	Low Temperature ABC-Type Ru Atomic Layer Deposition through Consecutive Dissociative Chemisorption, Combustion, and Reduction Steps. Chemistry of Materials, 2015, 27, 4950-4956.	6.7	32
75	Multifunctional PdAg@MIL-101 for One-Pot Cascade Reactions: Combination of Hostâ€“Guest Cooperation and Bimetallic Synergy in Catalysis. ACS Catalysis, 2015, 5, 2062-2069.	11.2	363
76	Precisely Controlled Porous Alumina Overcoating on Pd Catalyst by Atomic Layer Deposition: Enhanced Selectivity and Durability in Hydrogenation of 1,3-Butadiene. ACS Catalysis, 2015, 5, 2735-2739.	11.2	79
77	Conversion of a metalâ€“organic framework to N-doped porous carbon incorporating Co and CoO nanoparticles: direct oxidation of alcohols to esters. Chemical Communications, 2015, 51, 8292-8295.	4.1	191
78	Single-Atom Pd₁/Graphene Catalyst Achieved by Atomic Layer Deposition: Remarkable Performance in Selective Hydrogenation of 1,3-Butadiene. Journal of the American Chemical Society, 2015, 137, 10484-10487.	13.7	905
79	Redox-driven atomic-scale changes in mixed catalysts: VOX/WOX/Î±-TiO2 (110). RSC Advances, 2014, 4, 64608-64616.	3.6	7
80	In situ XANES study of methanol decomposition and partial oxidation to syn-gas over supported Pt catalyst on SrTiO3 nanocubes. Catalysis Today, 2014, 237, 71-79.	4.4	16
81	Toward atomically-precise synthesis of supported bimetallic nanoparticles using atomic layer deposition. Nature Communications, 2014, 5, 3264.	12.8	181
82	First-Principles Predictions and in Situ Experimental Validation of Alumina Atomic Layer Deposition on Metal Surfaces. Chemistry of Materials, 2014, 26, 6752-6761.	6.7	68
83	Hollow Metalâ€“Organic Framework Nanospheres via Emulsion-Based Interfacial Synthesis and Their Application in Size-Selective Catalysis. ACS Applied Materials & Interfaces, 2014, 6, 18163-18171.	8.0	159
84	Effects of Chlorine in Titanium Oxide on Palladium Atomic Layer Deposition. Journal of Physical Chemistry C, 2014, 118, 22611-22619.	3.1	24
85	Palladium Nanoparticle Formation on TiO₂(110) by Thermal Decomposition of Palladium(II) Hexafluoroacetylacetonate. ACS Applied Materials & Interfaces, 2014, 6, 14702-14711.	8.0	42
86	Adsorbate-Induced Structural Changes in 1â€“3 nm Platinum Nanoparticles. Journal of the American Chemical Society, 2014, 136, 9320-9326.	13.7	69
87	Epitaxial Stabilization of Face Selective Catalysts. Topics in Catalysis, 2013, 56, 1829-1834.	2.8	20
88	Oxidative dehydrogenation of ethane over alumina-supported Pd catalysts. Effect of alumina overlayer. Journal of Catalysis, 2013, 297, 289-295.	6.2	25
89	Synthesis of Na-Stabilized Nonporous t-ZrO₂ Supports and Pt/t-ZrO₂ Catalysts and Application to Water-Gas-Shift Reaction. ACS Catalysis, 2013, 3, 61-73.	11.2	63
90	Synthesis and Stabilization of Supported Metal Catalysts by Atomic Layer Deposition. Accounts of Chemical Research, 2013, 46, 1806-1815.	15.6	271

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91	Resolving Precursor Deligation, Surface Species Evolution, and Nanoparticle Nucleation during Palladium Atomic Layer Deposition. Journal of Physical Chemistry C, 2013, 117, 11141-11148.	3.1	30
92	Catalysts Transform While Molecules React: An Atomic-Scale View. Journal of Physical Chemistry Letters, 2013, 4, 285-291.	4.6	19
93	Stabilization of Copper Catalysts for Liquidâ€Phase Reactions by Atomic Layer Deposition. Angewandte Chemie - International Edition, 2013, 52, 13808-13812.	13.8	162
94	RÃ¼cktitelbild: Stabilization of Copper Catalysts for Liquid-Phase Reactions by Atomic Layer Deposition (Angew. Chem. 51/2013). Angewandte Chemie, 2013, 125, 14068-14068.	2.0	1
95	Porous Alumina Protective Coatings on Palladium Nanoparticles by Self-Poisoned Atomic Layer Deposition. Chemistry of Materials, 2012, 24, 2047-2055.	6.7	110
96	Shape-selective sieving layers on an oxide catalyst surface. Nature Chemistry, 2012, 4, 1030-1036.	13.6	110
97	Synthesis of Ptâ€“Pd Coreâ€“Shell Nanostructures by Atomic Layer Deposition: Application in Propane Oxidative Dehydrogenation to Propylene. Chemistry of Materials, 2012, 24, 3525-3533.	6.7	104
98	Effect of Reactor Materials on the Properties of Titanium Oxide Nanotubes. ACS Catalysis, 2012, 2, 45-49.	11.2	62
99	Atomic Layer Deposition of Noble Metals â€“ New Developments in Nanostructured Catalysts. , 2012, , .		4
100	Coking- and Sintering-Resistant Palladium Catalysts Achieved Through Atomic Layer Deposition. Science, 2012, 335, 1205-1208.	12.6	707
101	Displacement of Hexanol by the Hexanoic Acid Overoxidation Product in Alcohol Oxidation on a Model Supported Palladium Nanoparticle Catalyst. Journal of the American Chemical Society, 2011, 133, 17816-17823.	13.7	35
102	Alumina Over-coating on Pd Nanoparticle Catalysts by Atomic Layer Deposition: Enhanced Stability and Reactivity. Catalysis Letters, 2011, 141, 512-517.	2.6	159
103	Lowâ€Temperature ABCâ€Type Atomic Layer Deposition: Synthesis of Highly Uniform Ultrafine Supported Metal Nanoparticles. Angewandte Chemie - International Edition, 2010, 49, 2547-2551.	13.8	85
104	Nano/Subnanometer Pd Nanoparticles on Oxide Supports Synthesized by AB-type and Low-Temperature ABC-type Atomic Layer Deposition: Growth and Morphology. Langmuir, 2010, 26, 16486-16495.	3.5	73
105	Surface Acidity and Properties of TiO₂/SiO₂ Catalysts Prepared by Atomic Layer Deposition: UVâ^'visible Diffuse Reflectance, DRIFTS, and Visible Raman Spectroscopy Studies. Journal of Physical Chemistry C, 2009, 113, 12412-12418.	3.1	82
106	STRUCTURE, THERMAL STABILITY, AND CO ADSORPTION PROPERTIES OF PD NANOPARTICLES SUPPORTED ON AN ULTRA-THIN SiO₂ FILM. Surface Review and Letters, 2007, 14, 927-934.	1.1	7
107	Gold supported on well-ordered ceria films: nucleation, growth and morphology in CO oxidation reaction. Catalysis Letters, 2007, 114, 8-16.	2.6	106
108	Manipulation and four-probe analysis of nanowires in UHV by application of four tunneling microscope tips: a new method for the investigation of electrical transport through nanowires. Surface and Interface Analysis, 2006, 38, 1096-1102.	1.8	11

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109	Interplay between theory and experiment in the quest for silica with reduced dimensionality grown on a Mo(112) surface. Chemical Physics Letters, 2006, 424, 115-119.	2.6	27
110	Low temperature CO induced growth of Pd supported on a monolayer silica film. Surface Science, 2006, 600, L153-L157.	1.9	18
111	Formation of one-dimensional crystalline silica on a metal substrate. Surface Science, 2006, 600, L164-L168.	1.9	19
112	Morphology and defect structure of the CeO2(111) films grown on Ru(0001) as studied by scanning tunneling microscopy. Surface Science, 2006, 600, 5004-5010.	1.9	159
113	Vanadium oxide surfaces and supported vanadium oxide nanoparticles. Topics in Catalysis, 2006, 38, 117-125.	2.8	80
114	Selective Analysis of Molecular States by Functionalized Scanning Tunneling Microscopy Tips. Physical Review Letters, 2006, 96, 156102.	7.8	44
115	Four-probe scanning tunnelling microscope with atomic resolution for electrical and electro-optical property measurements of nanosystems. Chinese Physics B, 2005, 14, 1536-1543.	1.3	27