

A Review of Electrocatalytic Reduction of Dinitrogen to Conditions

Advanced Energy Materials

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Recent advances in energy chemistry of precious-metal-free catalysts for oxygen electrocatalysis. Chinese Chemical Letters, 2018, 29, 1757-1767.	4.8	63
2	Direct chemical synthesis of ultrathin holey iron doped cobalt oxide nanosheets on nickel foam for oxygen evolution reaction. Nano Energy, 2018, 54, 238-250.	8.2	114
3	Electrochemical N ₂ fixation to NH ₃ under ambient conditions: Mo ₂ N nanorod as a highly efficient and selective catalyst. Chemical Communications, 2018, 54, 8474-8477.	2.2	287
4	Hierarchical Cobalt Phosphide Hollow Nanocages toward Electrocatalytic Ammonia Synthesis under Ambient Pressure and Room Temperature. Small Methods, 2018, 2, 1800204.	4.6	171
5	Unravelling the electrochemical mechanisms for nitrogen fixation on single transition metal atoms embedded in defective graphitic carbon nitride. Journal of Materials Chemistry A, 2018, 6, 21941-21948.	5.2	161
6	Highly Selective Electrochemical Reduction of Dinitrogen to Ammonia at Ambient Temperature and Pressure over Iron Oxide Catalysts. Chemistry - A European Journal, 2018, 24, 18494-18501.	1.7	129
7	Electronically Coupled SnO ₂ Quantum Dots and Graphene for Efficient Nitrogen Reduction Reaction. ACS Applied Materials & Interfaces, 2019, 11, 31806-31815.	4.0	163
8	Atomic-level insights in tuning defective structures for nitrogen photofixation over amorphous SnOCl nanosheets. Nano Energy, 2019, 65, 104003.	8.2	36
9	<i>In situ</i> nano Au triggered by a metal boron organic polymer: efficient electrochemical N ₂ fixation to NH ₃ under ambient conditions. Journal of Materials Chemistry A, 2019, 7, 20945-20951.	5.2	46
10	Composition-dependent electrochemical activity of Ag-based alloy nanotubes for efficient nitrogen reduction under ambient conditions. Electrochimica Acta, 2019, 321, 134691.	2.6	20
11	Photocatalytic ammonia synthesis: Recent progress and future. EnergyChem, 2019, 1, 100013.	10.1	204
12	Amorphous Sn/Crystalline SnS ₂ Nanosheets via In Situ Electrochemical Reduction Methodology for Highly Efficient Ambient N ₂ Fixation. Small, 2019, 15, e1902535.	5.2	80
13	Theoretical insights into nitrogen fixation on Ti ₂ C and Ti ₂ CO ₂ in a lithium-ion nitrogen battery. Journal of Materials Chemistry A, 2019, 7, 19950-19960.	5.2	21
14	Characterization techniques and analytical methods of carbon-based materials for energy applications. , 2019, , 63-88.		4
15	Carbonaceous materials for efficient electrocatalysis. , 2019, , 375-394.		2
16	Metal-Free B@g-CN: Visible/Infrared Light-Driven Single Atom Photocatalyst Enables Spontaneous Dinitrogen Reduction to Ammonia. Nano Letters, 2019, 19, 6391-6399.	4.5	236
17	Spinel LiMn ₂ O ₄ Nanofiber: An Efficient Electrocatalyst for N ₂ Reduction to NH ₃ under Ambient Conditions. Inorganic Chemistry, 2019, 58, 9597-9601.	1.9	90
18	Mild Ammonia Synthesis over Ba-Promoted Ru/MPC Catalysts: Effects of the Ba/Ru Ratio and the Mesoporous Structure. Catalysts, 2019, 9, 480.	1.6	19

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19	Efficient Photoelectrochemical Route for the Ambient Reduction of N ₂ to NH ₃ Based on Nanojunctions Assembled from MoS ₂ Nanosheets and TiO ₂ . ACS Applied Materials & Interfaces, 2019, 11, 28809-28817.	4.0	123
20	Size-Dependent Association of Cobalt Deuteride Cluster Anions Co ₃ D _n (<i>n</i> = 4) with Dinitrogen. Journal of the American Society for Mass Spectrometry, 2019, 30, 1956-1963.	1.2	20
21	Nitrogen-Doped NiO Nanosheet Array for Boosted Electrocatalytic N ₂ Reduction. ChemCatChem, 2019, 11, 4529-4536.	1.8	74
22	ZnO Quantum Dots Coupled with Graphene toward Electrocatalytic N ₂ Reduction: Experimental and DFT Investigations. Chemistry - A European Journal, 2019, 25, 11933-11939.	1.7	71
23	Biomimetic Nitrogen Fixation Catalyzed by Transition Metal Sulfide Surfaces in an Electrolytic Cell. ChemSusChem, 2019, 12, 4265-4273.	3.6	35
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26	Metal-organic framework-derived materials for electrochemical energy applications. EnergyChem, 2019, 1, 100001.	10.1	438
27	Doping strain induced bi-Ti ³⁺ pairs for efficient N ₂ activation and electrocatalytic fixation. Nature Communications, 2019, 10, 2877.	5.8	279
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29	High Efficiency Electrochemical Nitrogen Fixation Achieved with a Lower Pressure Reaction System by Changing the Chemical Equilibrium. Angewandte Chemie - International Edition, 2019, 58, 15541-15547.	7.2	164
30	Corrosion-Induced Cl-Doped Ultrathin Graphdiyne toward Electrocatalytic Nitrogen Reduction at Ambient Conditions. ACS Catalysis, 2019, 9, 10649-10655.	5.5	95
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32	High Efficiency Electrochemical Nitrogen Fixation Achieved with a Lower Pressure Reaction System by Changing the Chemical Equilibrium. Angewandte Chemie, 2019, 131, 15687-15693.	1.6	34
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35	Salt-Templated Construction of Ultrathin Cobalt Doped Iron Thiophosphite Nanosheets toward Electrochemical Ammonia Synthesis. Small, 2019, 15, e1903500.	5.2	57
36	New Mechanism for N ₂ Reduction: The Essential Role of Surface Hydrogenation. Journal of the American Chemical Society, 2019, 141, 18264-18270.	6.6	166

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37	Electrochemical Nitrogen Reduction Reaction Performance of Single-Boron Catalysts Tuned by MXene Substrates. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6984-6989.	2.1	120
38	N-Doped Porous Carbon Self-Generated on Nickel Oxide Nanosheets for Electrocatalytic N ₂ Fixation with a Faradaic Efficiency beyond 30%. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 18874-18883.	3.2	37
39	Operando Oxygen Vacancies for Enhanced Activity and Stability toward Nitrogen Photofixation. <i>Advanced Energy Materials</i> , 2019, 9, 1902319.	10.2	88
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41	Single molybdenum atom anchored on 2D Ti ₂ NO ₂ MXene as a promising electrocatalyst for N ₂ fixation. <i>Nanoscale</i> , 2019, 11, 18132-18141.	2.8	55
42	Electrocatalytic Ammonia Oxidation Mediated by a Polypyridyl Iron Catalyst. <i>ACS Catalysis</i> , 2019, 9, 10101-10108.	5.5	72
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48	CuO/Graphene Nanocomposite for Nitrogen Reduction Reaction. <i>ChemCatChem</i> , 2019, 11, 1441-1447.	1.8	95
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50	A boron-interstitial doped C ₂ N layer as a metal-free electrocatalyst for N ₂ fixation: a computational study. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2392-2399.	5.2	162
51	Low-Coordinated Gold Atoms Boost Electrochemical Nitrogen Reduction Reaction under Ambient Conditions. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 10214-10220.	3.2	37
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56	Oxygen vacancy-engineered Fe ₂ O ₃ nanocubes <i>via</i> a task-specific ionic liquid for electrocatalytic N ₂ fixation. <i>Chemical Communications</i> , 2019, 55, 7370-7373.	2.2	67
57	Electrocatalytic Nitrogen Reduction to Ammonia by Fe ₂ O ₃ Nanorod Array on Carbon Cloth. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 11754-11759.	3.2	77
58	Self-power electroreduction of N ₂ into NH ₃ by 3D printed triboelectric nanogenerators. <i>Materials Today</i> , 2019, 28, 17-24.	8.3	127
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70	Electrochemical N ₂ splitting at well-defined metal complexes. <i>Current Opinion in Electrochemistry</i> , 2019, 15, 97-101.	2.5	11
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92	Cu doping in CeO ₂ to form multiple oxygen vacancies for dramatically enhanced ambient N ₂ reduction performance. <i>Chemical Communications</i> , 2019, 55, 2952-2955.	2.2	138
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110	Visible-Light Bismuth Iron Molybdate Photocatalyst for Artificial Nitrogen Fixation. <i>Journal of the Electrochemical Society</i> , 2019, 166, H3091-H3096.	1.3	19
111	Computational Design of Single-Molybdenum Catalysts for the Nitrogen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2019, 123, 2347-2352.	1.5	63
112	Electrochemical Fabrication of Porous Au Film on Ni Foam for Nitrogen Reduction to Ammonia. <i>Small</i> , 2019, 15, e1804769.	5.2	132
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114	Defect Engineering Strategies for Nitrogen Reduction Reactions under Ambient Conditions. <i>Small Methods</i> , 2019, 3, 1800331.	4.6	199
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453	High temperature induced S vacancies in natural molybdenite for robust electrocatalytic nitrogen reduction. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 849-856.	5.0	16
454	Vacancy and N dopants facilitated Ti ³⁺ sites activity in 3D Ti ₃ -xC ₂ Ty MXene for electrochemical nitrogen fixation. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120482.	10.8	30
455	Main group metal elements for ambient-condition electrochemical nitrogen reduction. <i>Journal of Energy Chemistry</i> , 2021, 62, 51-70.	7.1	70
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459	Direct ammonia synthesis from the air via gliding arc plasma integrated with single atom electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 299, 120667.	10.8	55
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468	Recent Progress on Electrocatalytic Synthesis of Ammonia Under Ambient Conditions. <i>Acta Chimica Sinica</i> , 2021, 79, 146.	0.5	8
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