

# Electrochemical reduction of nitrate to ammonia via direct proton transfer by a copperâ€“molecular solid catalyst

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Boosted Photoelectrochemical N <sub>2</sub> Reduction over Mo <sub>2</sub> C In Situ Coated with Graphitized Carbon. Langmuir, 2020, 36, 14802-14810.	3.5	20
2	Recycling fertilizer. Nature Energy, 2020, 5, 557-558.	39.5	18
3	Efficient nitrate-to-ammonia transformation through a direct eight-electron reduction. Science China Chemistry, 2020, 63, 1737-1739.	8.2	8
4	Emerging alternative for artificial ammonia synthesis through catalytic nitrate reduction. Journal of Materials Science and Technology, 2021, 77, 163-168.	10.7	66
5	Electrochemical synthesis of ammonia: Progress and challenges. Materials Today Physics, 2021, 16, 100310.	6.0	50
6	Understanding the Z-scheme heterojunction of BiVO <sub>4</sub> /PANI for photoelectrochemical nitrogen reduction. Chemical Communications, 2021, 57, 10568-10571.	4.1	35
7	Boosting NH <sub>3</sub> production from nitrate electroreduction <i>via</i> electronic structure engineering of Fe <sub>3</sub> C nanoflakes. Green Chemistry, 2021, 23, 7594-7608.	9.0	50
8	Reaction intermediate-mediated electrocatalyst synthesis favors specified facet and defect exposure for efficient nitrate→ammonia conversion. Energy and Environmental Science, 2021, 14, 4989-4997.	30.8	145
9	Atomic defects in pothole-rich two-dimensional copper nanoplates triggering enhanced electrocatalytic selective nitrate-to-ammonia transformation. Journal of Materials Chemistry A, 2021, 9, 16411-16417.	10.3	82
10	High-efficiency nitrate electroreduction to ammonia on electrodeposited cobalt→phosphorus alloy film. Chemical Communications, 2021, 57, 9720-9723.	4.1	58
11	Nitrate reduction to ammonium: from CuO defect engineering to waste NO <sub>x</sub> -to-NH <sub>3</sub> economic feasibility. Energy and Environmental Science, 2021, 14, 3588-3598.	30.8	161
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15	Back donation, intramolecular electron transfer and N→O bond scission targeting nitrogen oxyanion reduction: how can a metal complex assist?. Dalton Transactions, 2021, 50, 2149-2157.	3.3	1
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17	Material strategies in the electrochemical nitrate reduction reaction to ammonia production. Materials Chemistry Frontiers, 2021, 5, 6803-6823.	5.9	37
18	Copper confined in vesicle-like BCN cavities promotes electrochemical reduction of nitrate to ammonia in water. Journal of Materials Chemistry A, 2021, 9, 23675-23686.	10.3	42

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19	Electrocatalytic Nitrate Reduction for Sustainable Ammonia Production. <i>Joule</i> , 2021, 5, 290-294.	24.0	497
20	Metallic Co Nanoarray Catalyzes Selective $\text{NH}_3$ Production from Electrochemical Nitrate Reduction at Current Densities Exceeding $2 \text{ A cm}^{-2}$ . <i>Advanced Science</i> , 2021, 8, 2004523.	11.2	153
21	An Experimentally Verified LC-MS Protocol toward an Economical, Reliable, and Quantitative Isotopic Analysis in Nitrogen Reduction Reactions. <i>Small Methods</i> , 2021, 5, e2000694.	8.6	16
22	Rational design on photo(electro)catalysts for artificial nitrogen looping. <i>EcoMat</i> , 2021, 3, e12096.	11.9	8
23	Electrosynthesis of urea from nitrite and $\text{CO}_2$ over oxygen vacancy-rich ZnO porous nanosheets. <i>Cell Reports Physical Science</i> , 2021, 2, 100378.	5.6	95
24	Two-dimensional bimetallic coordination polymers as bifunctional evolved electrocatalysts for enhanced oxygen evolution reaction and urea oxidation reaction. <i>Journal of Energy Chemistry</i> , 2021, 63, 230-238.	12.9	29
25	From inert gas to fertilizer, fuel and fine chemicals: $\text{N}_2$ reduction and fixation. <i>Catalysis Today</i> , 2022, 387, 186-196.	4.4	4
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30	Electrocatalytic Nitrate Reduction on Oxide-Derived Silver with Tunable Selectivity to Nitrite and Ammonia. <i>ACS Catalysis</i> , 2021, 11, 8431-8442.	11.2	125
31	Emerging artificial nitrogen cycle processes through novel electrochemical and photochemical synthesis. <i>Materials Today</i> , 2021, 46, 212-233.	14.2	104
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40	Atomically dispersed Fe atoms anchored on S and N-codoped carbon for efficient electrochemical denitrification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	49
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44	Schottky Barrier-Induced Surface Electric Field Boosts Universal Reduction of NO <sub>x</sub> <sup>•</sup> in Water to Ammonia. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20711-20716.	13.8	68
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46	Schottky Barrier-Induced Surface Electric Field Boosts Universal Reduction of NO <sub>x</sub> <sup>•</sup> in Water to Ammonia. <i>Angewandte Chemie</i> , 2021, 133, 20879-20884.	2.0	12
47	Recent development of electrochemical nitrate reduction to ammonia: A mini review. <i>Electrochemistry Communications</i> , 2021, 129, 107094.	4.7	96
48	Precisely Controlled Synthesis of Hybrid Intermetallic-Metal Nanoparticles for Nitrate Electroreduction. <i>ACS Applied Materials &amp; Interfaces</i> , 0, .	8.0	13
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110	Regulating surface oxygen species on copper (I) oxides via plasma treatment for effective reduction of nitrate to ammonia. <i>Applied Catalysis B: Environmental</i> , 2022, 305, 121021.	20.2	98
111	Pd Nanocrystals Embedded in BC <sub>2</sub> N for Efficient Electrochemical Conversion of Nitrate to Ammonia. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
112	CO <sub>2</sub> bubble-assisted in-situ construction of mesoporous Co-doped Cu <sub>2</sub> (OH) <sub>2</sub> CO <sub>3</sub> nanosheets as advanced electrodes towards fast and highly efficient electrochemical reduction of nitrate to N <sub>2</sub> in wastewater. <i>Journal of Hazardous Materials</i> , 2022, 430, 128351.	12.4	14
113	In Situ Loading of Cu <sub>2</sub> O Active Sites on Island-like Copper for Efficient Electrochemical Reduction of Nitrate to Ammonia. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 6680-6688.	8.0	62
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120	Single-atom catalysts for thermal- and electro-catalytic hydrogenation reactions. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5743-5757.	10.3	22
121	Insight into Hydrogenation Selectivity of the Electrocatalytic Nitrate-to-Ammonia Reduction Reaction via Enhancing the Proton Transport. <i>ChemSusChem</i> , 2022, 15, .	6.8	9
122	Boosting nitrate electroreduction to ammonia on NbO <sub>x</sub> via constructing oxygen vacancies. <i>Green Chemistry</i> , 2022, 24, 1090-1095.	9.0	35
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125	New insight on electroreduction of nitrate to ammonia driven by oxygen vacancies-induced strong interface interactions. <i>Journal of Catalysis</i> , 2022, 406, 39-47.	6.2	29
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128	Pd nanocrystals embedded in BC <sub>2</sub> N for efficient electrochemical conversion of nitrate to ammonia. Applied Surface Science, 2022, 584, 152556.	6.1	18
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139	Efficient Ammonia Synthesis Via Electroreduction of Nitrite Using Single-Atom Ru-Doped Cu Nanowire Arrays. SSRN Electronic Journal, 0, , .	0.4	0
140	Co nanoparticle-decorated pomelo-peel-derived carbon enabled high-efficiency electrocatalytic nitrate reduction to ammonia. Chemical Communications, 2022, 58, 4259-4262.	4.1	40
141	Electroreduction of NO <sub>3</sub> <sup>-</sup> on tubular porous Ti electrodes. Catalysis Science and Technology, 2022, 12, 3281-3288.	4.1	8
142	Ambient ammonia production via electrocatalytic nitrate reduction catalyzed by flower-like CuCo <sub>2</sub> O <sub>4</sub> electrocatalyst. Inorganic Chemistry Frontiers, 0, , .	6.0	8
143	Exclusive Nitrate to Ammonia Conversion via Boron-Doped Carbon Dots Induced Surface Lewis Acid Sites. SSRN Electronic Journal, 0, , .	0.4	0
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146	A FeCo <sub>2</sub> O <sub>4</sub> nanowire array enabled electrochemical nitrate conversion to ammonia. Chemical Communications, 2022, 58, 4480-4483.	4.1	34
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