Unraveling fundamental active units in carbon nitride f reactions

Nature Communications

12, 320

DOI: 10.1038/s41467-020-20521-5

Citation Report

#	Article	IF	Citations
1	Integration of redox cocatalysts for artificial photosynthesis. Energy and Environmental Science, 2021, 14, 5260-5288.	15.6	105
2	Metal-doped carbon nitrides: synthesis, structure and applications. New Journal of Chemistry, 2021, 45, 11876-11892.	1.4	33
3	Ultrafast anisotropic exciton dynamics in a water-soluble ionic carbon nitride photocatalyst. Chemical Communications, 2021, 57, 10739-10742.	2.2	1
4	Graphitic C₂N₃: An Allotrope of g-C₃N₄ Containing Active Azide Pentagons as Metal-Free Photocatalyst for Abundant H₂ Bubble Evolution. ACS Nano, 2021, 15, 7208-7215.	7.3	60
5	Carbon Nitrideâ€Based Photoanode with Enhanced Photostability and Water Oxidation Kinetics. Advanced Functional Materials, 2021, 31, 2101724.	7.8	29
6	Harnessing the Potential of Graphitic Carbon Nitride for Optoelectronic Applications. Advanced Optical Materials, 2021, 9, 2100146.	3.6	22
7	Foamer-Derived Bulk Nitrogen Defects and Oxygen-Doped Porous Carbon Nitride with Greatly Extended Visible-Light Response and Efficient Photocatalytic Activity. ACS Applied Materials & Interfaces, 2021, 13, 23866-23876.	4.0	25
8	Clean light oriented ultrafast Pt/Bi2S3 nanoflakes for the photocatalytic destruction of gemifloxacin mesylate drug and methylene blue. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 414, 113288.	2.0	25
9	Enhanced peroxymonosulfate decomposition into OH and 1O2 for sulfamethoxazole degradation over Se doped g-C3N4 due to induced exfoliation and N vacancies formation. Separation and Purification Technology, 2021, 267, 118664.	3.9	24
10	Visible-light-driven ZnO/ZnS/MnO2 ternary nanocomposite catalyst: synthesis, characterization and photocatalytic degradation of methylene blue. Applied Nanoscience (Switzerland), 2021, 11, 2361-2370.	1.6	35
11	A Tourâ€Guide through Carbon Nitrideâ€Land: Structureâ€and Dimensionalityâ€Dependent Properties for Photo(Electro)Chemical Energy Conversion and Storage. Advanced Energy Materials, 2022, 12, 2101078.	10.2	81
12	First-principles study of S-doped point defects with different charge states in monolayer g-C3N4. Applied Surface Science, 2021, 554, 149601.	3.1	19
13	Enhanced Hydroxylation of Benzene to Phenol with Hydrogen Peroxide over g-C₃N₄ Quantum Dots-Modified Fe-SBA-15 Catalysts: Synergistic Effect Among Fe Species, g-C₃N₄ QDs, and Porous Structure. Industrial & Engineering Chemistry Research, 2021, 60, 13876-13885.	1.8	7
14	PtSe₂/Pt Heterointerface with Reduced Coordination for Boosted Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2021, 60, 23388-23393.	7.2	153
15	Visible light triggered exfoliation of COF micro/nanomotors for efficient photocatalysis. Green Energy and Environment, 2023, 8, 567-578.	4.7	23
16	PtSe₂/Pt Heterointerface with Reduced Coordination for Boosted Hydrogen Evolution Reaction. Angewandte Chemie, 2021, 133, 23576-23581.	1.6	33
17	Single-Atom Fe-N4 sites promote the triplet-energy transfer process of g-C3N4 for the photooxidation. Journal of Catalysis, 2021, 404, 89-95.	3.1	26
18	Origin of sonocatalytic activity of fluorescent carbon dots. Carbon, 2021, 184, 102-108.	5.4	16

#	Article	IF	Citations
19	Stabilizing plasma-induced highly nitrogen-deficient g-C3N4 by heteroatom-refilling for excellent lithium-ion battery anodes. Chemical Engineering Journal, 2022, 427, 131032.	6.6	38
20	Fabrication of 0D/2D TiO2 Nanodots/g-C3N4 S-scheme heterojunction photocatalyst for efficient photocatalytic overall water splitting. Applied Surface Science, 2022, 571, 151287.	3.1	69
21	A review on bismuth oxyhalide based materials for photocatalysis. Nanoscale Advances, 2021, 3, 3353-3372.	2.2	82
22	Synergistic Modulation of the Separation of Photoâ€Generated Carriers via Engineering of Dual Atomic Sites for Promoting Photocatalytic Performance. Advanced Materials, 2021, 33, e2105904.	11.1	117
23	TPPH/g-C₃N₄ Nanohybrids Constructed with Surfactant-Assisted Co-Assembly for Photocatalytic Hydrogen Generation. Nano, 2021, 16, .	0.5	0
24	Facile Preparation of Carbon Nitride-ZnO Hybrid Adsorbent for CO2 Capture: The Significant Role of Amine Source to Metal Oxide Ratio. Catalysts, 2021, 11, 1253.	1.6	3
25	Enhanced Light-driven CO2 Reduction on Metal-free Rich Terminal Oxygen-defects Carbon Nitride Nanosheets. Journal of Colloid and Interface Science, 2021, 608, 2505-2505.	5.0	4
26	Engineering carbon nitride with cyanide groups for efficient photocatalytic alcohol oxidation and H2O2 production-Utilization of photogenerated electrons and holes. Applied Surface Science, 2022, 573, 151506.	3.1	10
27	Highly efficient activation of peroxymonosulfate by MOF-derived CoP/CoOx heterostructured nanoparticles for the degradation of tetracycline. Chemical Engineering Journal, 2022, 430, 132816.	6.6	21
28	Nitrogen defects/boron dopants engineered tubular carbon nitride for efficient tetracycline hydrochloride photodegradation and hydrogen evolution. Applied Catalysis B: Environmental, 2022, 303, 120932.	10.8	127
29	A nano heterostructure with step-accelerated system toward optimized photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2021, 47, 1656-1656.	3.8	4
30	Nanostructure Engineering via Intramolecular Construction of Carbon Nitride as Efficient Photocatalyst for CO2 Reduction. Nanomaterials, 2021, 11, 3245.	1.9	30
31	CuBi2O4/BiOBr composites promoted PMS activation for the degradation of tetracycline: S-scheme mechanism boosted Cu2+/Cu+ cycle. Chemical Engineering Journal, 2022, 431, 134054.	6.6	117
32	Unraveling the dual defect sites in graphite carbon nitride for ultra-high photocatalytic H₂O₂ evolution. Energy and Environmental Science, 2022, 15, 830-842.	15.6	308
33	Charge Trapping in Terminal States in Polymeric Carbon Nitride for Photocatalytic Reduction Reaction. Journal of Physical Chemistry C, 2022, 126, 2430-2436.	1.5	5
34	Sulphur vacancies-VS2@C3N4 drived by in situ supramolecular self-assembly for synergistic photocatalytic degradation of real wastewater and H2 production: Vacancies taming interfacial compact heterojunction and carriers transfer. Chemical Engineering Journal, 2022, 433, 134505.	6.6	45
35	Steered polymorphic nanodomains in TiO₂ to boost visible-light photocatalytic oxidation. RSC Advances, 2022, 12, 9660-9670.	1.7	1
36	The influence of synthesis conditions on the visible-light triggered photocatalytic activity of g-C3N4/TiO2 composites used in AOPs. Journal of Environmental Chemical Engineering, 2022, 10, 107656.	3.3	15

#	Article	IF	Citations
37	Linker functionalized poly(heptazine imide) as charge channel and activation site for enhancing photocatalytic nitrogen fixation in pure water. Applied Catalysis B: Environmental, 2022, 311, 121370.	10.8	33
38	N-doped carbon dots decorated 3D g-C3N4 for visible-light driven peroxydisulfate activation: Insights of non-radical route induced by Na+ doping. Applied Catalysis B: Environmental, 2022, 310, 121304.	10.8	53
39	Atomically Dispersed Cu Nanozyme with Intensive Ascorbate Peroxidase Mimic Activity Capable of Alleviating ROSâ€Mediated Oxidation Damage. Advanced Science, 2022, 9, e2103977.	5.6	38
40	Tailoring g-C3N4 with Lanthanum and Cobalt Oxides for Enhanced Photoelectrochemical and Photocatalytic Activity. Catalysts, 2022, 12, 15.	1.6	9
41	Internal Chemiluminescence Light-Driven Photocatalysis. ACS Applied Materials & Interfaces, 2021, 13, 60471-60477.	4.0	10
42	Simple preparation of copper-doped 2D BiOBr nanosheets for efficiently enhanced chemical adsorption and elimination of tetracycline. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 646, 128965.	2.3	10
43	Micro-tailored g-C3N4 enables Ru single-atom loading for efficient photocatalytic H2 evolution. Applied Surface Science, 2022, 596, 153471.	3.1	14
44	In situ Growth of Graphitic Carbon Nitride on Multiwalled Carbon Nanotubes for Interfacial Thermal Management. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, , 129232.	2.3	1
45	Synthesis of two-dimensional ultrathin photocatalytic materials towards a more sustainable environment. Green Chemistry, 2022, 24, 4728-4741.	4.6	13
46	Shearing bridge bonds in carbon nitride vesicles with enhanced hot carrier utilization for photocatalytic hydrogen production. Catalysis Science and Technology, 2022, 12, 4193-4200.	2.1	24
47	Coordination Chemistry Engineered Polymeric Carbon Nitride Photoanode with Ultralow Onset Potential for Water Splitting. Angewandte Chemie - International Edition, 2022, 61, .	7.2	16
48	Coordination Chemistry Engineered Polymeric Carbon Nitride Photoanode with Ultralow Onset Potential for Water Splitting. Angewandte Chemie, 0, , .	1.6	2
49	Nanoscale 2D g-C3N4 decorating 3D hierarchical architecture LDH for artificial photosynthesis and mechanism insight. Chemical Engineering Journal, 2022, 448, 137338.	6.6	15
50	Multi-regulation of charge separation and band structure by a novel O-doped g-C3N4 nanosheets homojunction for enhanced photodegradation performance. Journal of Alloys and Compounds, 2022, 918, 165793.	2.8	10
51	Laser direct writing derived robust carbon nitride films with efficient photonâ€toâ€electron conversion for multifunctional photoelectrical applications. , 2022, 4, 1228-1241.		6
52	Photocatalytic CO2 Reduction Coupled with Alcohol Oxidation over Porous Carbon Nitride. Catalysts, 2022, 12, 672.	1.6	14
53	Edge- and bridge-engineering-mediated exciton dissociation and charge separation in carbon nitride to boost photocatalytic H₂ evolution integrated with selective amine oxidation. Journal of Materials Chemistry A, 2022, 10, 16448-16456.	5.2	22
54	Elucidating Orbital Delocalization Effects on Boosting Electrochemiluminescence Efficiency of Carbon Nitrides. Advanced Optical Materials, 2022, 10, .	3.6	24

#	Article	IF	Citations
55	In Situ Monitoring Charge Transfer on Topotactic Epitaxial Heterointerface for Tetracycline Degradation at the Single-Particle Level. ACS Catalysis, 2022, 12, 9114-9124.	5.5	17
56	Donor-acceptor anchoring nanoarchitectonics in polymeric carbon nitride for rapid charge transfer and enhanced visible-light photocatalytic hydrogen evolution reaction. Carbon, 2022, 197, 378-388.	5.4	11
57	Graphitic carbon nitride colloid as one photoinitiator for two-step polymerization. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 650, 129615.	2.3	7
58	Defect-rich ultrathin poly-heptazine-imide-framework nanosheets with alkali-ion doping for photocatalytic solar hydrogen and selective benzylamine oxidation. Nano Research, 2022, 15, 8760-8770.	5.8	7
59	Extended Conjugation Tuning Carbon Nitride for Nonâ€sacrificial H₂O₂Photosynthesis and Hypoxic Tumor Therapy**. Angewandte Chemie - International Edition, 2022, 61, .	7.2	47
60	Extended Conjugation Refining Carbon Nitride for Nonâ€sacrificial H2O2 Photosynthesis and Hypoxic Tumor Therapy. Angewandte Chemie, 0, , .	1.6	2
61	Constructing porous carbon nitride nanosheets for efficient visible-light-responsive photocatalytic hydrogen evolution. Journal of Colloid and Interface Science, 2022, 628, 214-221.	5.0	8
62	Potassium-doped carbon nitride: Highly efficient photoredox catalyst for selective oxygen reduction and arylboronic acid hydroxylation. Journal of Catalysis, 2022, 414, 64-75.	3.1	9
63	Fast charge separation and transfer strategy in polymeric carbon nitride for efficient photocatalytic H2 evolution: Coupling surface Schottky junctions and interlayer charge transfer channels. Nano Energy, 2022, 103, 107767.	8.2	33
64	Unravelling the synergy of Eu dopant and surface oxygen vacancies confined in bimetallic oxide for peroxymonosulfate activation. Chemical Engineering Journal, 2023, 452, 139192.	6.6	2
65	Photoelectrochemical alcohols oxidation over polymeric carbon nitride photoanodes with simultaneous H₂ production. Journal of Materials Chemistry A, 2022, 10, 16585-16594.	5.2	13
66	Zinc ferrite-graphitic carbon nitride nanohybrid for photo-catalysis of the antibiotic ciprofloxacin. Catalysis Science and Technology, 2022, 12, 6518-6526.	2.1	6
67	Metalâ€Free Photocatalysts for Conversion of H₂O into Hydrogen Peroxide. ChemSusChem, 2022, 15, .	3.6	10
68	Recent Advances in g-C₃N₄-Based Donorâ€“Acceptor Photocatalysts for Photocatalytic Hydrogen Evolution: An Exquisite Molecular Structure Engineering. , 2022, 4, 2166-2186.		25
69	Solar-Driven Photocatalytic Films: Synthesis Approaches, Factors Affecting Environmental Activity, and Characterization Features. Topics in Current Chemistry, 2022, 380, .	3.0	10
70	Nanoscale hetero-interfaces for electrocatalytic and photocatalytic water splitting. Science and Technology of Advanced Materials, 2022, 23, 587-616.	2.8	4
71	A study on singlet oxygen generation for tetracycline degradation via modulating the size of Î±-Fe2O3 nanoparticle anchored on g-C3N4 nanotube photocatalyst. Nano Research, 2023, 16, 2236-2244.	5.8	8
72	Chlorine-mediated synthesis of self-exfoliated and wavy-structured graphitic carbon nitride nanosheets for enhanced photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2023, 48, 3893-3900.	3.8	2

#	Article	IF	Citations
73	Advanced nanomaterials for highly efficient CO₂ photoreduction and photocatalytic hydrogen evolution. Science and Technology of Advanced Materials, 2022, 23, 866-894.	2.8	7
74	Advancing n-Ï€* electron transition of carbon nitride via distorted structure and nitrogen heterocycle for efficient photodegradation: Performance, mechanism and toxicity insight. Journal of Colloid and Interface Science, 2023, 632, 285-298.	5.0	41
75	Bottom-to-Up synthesis of functional carbon nitride polymer: Design principles, controlled synthesis and applications. European Polymer Journal, 2023, 182, 111734.	2.6	7
76	Framework structure engineering of polymeric carbon nitrides and its recent applications. Progress in Materials Science, 2023, 133, 101056.	16.0	23
77	Multifunctional semiconducting carbon nitrides enabling sequential fluorescent sensing of telomerase activity and internal self-checking. Sensors and Actuators B: Chemical, 2023, 378, 133170.	4.0	2
78	Visible-light-driven nanoscale zero-valent iron loaded rGO/g-C3N4 for fluoroquinolone antibiotics degradation in water. Frontiers in Environmental Science, 0, 10, .	1.5	4
79	Charge Separation between Pt Co-catalysts and Plasmonic Au in Ptâ€“Au/C₃N₄ Photocatalysts. Journal of Physical Chemistry Letters, 2022, 13, 11982-11989.	2.1	3
80	Study on decolorization of methylene blue with a kind of electrolytic active water. Textile Reseach Journal, 2023, 93, 2531-2544.	1.1	1
81	Excitedâ€state nonadiabatic dynamics simulations on the heptazine and adenine in a water environment: A mini review. Journal of the Chinese Chemical Society, 2023, 70, 195-208.	0.8	1
82	Defectâ€Induced Activity Enhancement of Selfâ€Exfoliated Carbon Nitrides for Solar Hydrogen Evolution. ChemCatChem, 2023, 15, .	1.8	2
83	Codoping g-C3N4 with boron and graphene quantum dots: Enhancement of charge transfer for ultrasensitive and selective photoelectrochemical detection of dopamine. Biosensors and Bioelectronics, 2023, 224, 115050.	5.3	15
84	Synthesis of ultrathin porous g-C3N4 nanofilm via template-free method for photocatalytic degradation of tetracycline. Journal of Alloys and Compounds, 2023, 939, 168738.	2.8	12
85	Graphene oxide modulated dual S-scheme ultrathin heterojunctions with iron phthalocyanine and phase-mixed bismuth molybdate as wide visible-light catalysts. Environmental Science: Nano, 2023, 10, 922-932.	2.2	7
86	Donor-acceptor engineered g-C3N4 enabling peroxymonosulfate photocatalytic conversion to 1O2 with nearly 100% selectivity. Journal of Hazardous Materials, 2023, 448, 130869.	6.5	22
87	Recent advances on g-C₃N₄-based Z-scheme photocatalysts for organic pollutant removal. Catalysis Science and Technology, 2023, 13, 2877-2898.	2.1	10
88	Band structure engineering of a polyimide photocatalyst towards enhanced water splitting. Energy Advances, 2023, 2, 556-564.	1.4	2
89	Benzotriazole-based structure in porous organic polymer enhancing O2 activation for high-efficient degradation of tetracycline under visible light. Chemical Engineering Journal, 2023, 460, 141810.	6.6	4
90	Facile fabrication of graphitic carbon nitride by solvothermal method with hierarchical structure and high visible light photocatalytic activity. Journal of the Taiwan Institute of Chemical Engineers, 2023, 145, 104773.	2.7	8

#	Article	IF	Citations
91	A regenerable Cu2O/BiOBr S-scheme heterojunction photocatalysts for efficient photocatalytic degradation of mixed organic pollutants. Separation and Purification Technology, 2023, 313, 123447.	3.9	25
92	Step scheme Fe2O3/S doped g-C3N4 heterojunction photocatalysts for photo-fenton norfloxacin and tetracycline degradation. Materials Science in Semiconductor Processing, 2023, 160, 107423.	1.9	8
93	Assembly of a novel Fe2TiO5-impregnated donor-Ï€-acceptor conjugated carbon nitride for highly efficient solar water splitting. Sustainable Materials and Technologies, 2023, 36, e00594.	1.7	4
94	Simultaneous polarization engineering and selectivity regulation achieved using polymeric carbon nitride for promoting NOx photo-oxidation. Applied Catalysis B: Environmental, 2023, 330, 122582.	10.8	5
95	Fabrication and immobilization of heteropoly acids (HPAs) and hexadecyl trimethyl ammonium bromide (CTAB) co-modified ternary zinc indium sulfide (ZnIn2S4): Capture photogenerated electrons and pollutant molecules by co-photocatalyst for enhancing the photocatalytic ability. Applied Surface Science, 2023, 624, 157105.	3.1	1
96	Nanoarchitecture Manipulation by Polycondensation on KCl Crystals toward Crystalline Lamellar Carbon Nitride for Efficient H₂O₂ Photoproduction. ACS Applied Materials & Interfaces, 2023, 15, 8232-8240.	4.0	14
97	Mechanical pressure-induced Ï€-electron delocalization of carbon nitride for boosting photocatalytic water splitting. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 439, 114626.	2.0	1
98	The Precision Defect Engineering with Nonmetallic Element Refilling Strategy in gâ€C₃N₄ for Enhanced Photocatalytic Hydrogen Production. Small, 2023, 19, .	5.2	24
99	Highly-efficient photocatalytic hydrogen evolution triggered by spatial confinement effects over co-crystal templated boron-doped carbon nitride hollow nanotubes. Journal of Materials Chemistry A, 2023, 11, 7584-7595.	5.2	16
100	Dual defect sites of nitrogen vacancy and cyano group synergistically boost the activation of oxygen molecules for efficient photocatalytic decontamination. Chemical Engineering Journal, 2023, 462, 142291.	6.6	15
101	Superhydrophilic 2D Carbon Nitrides Prepared by Direct Chemical Vapor Deposition. Small Science, 2023, 3, .	5.8	1
102	Improving CO2 photoconversion with ionic liquid and Co single atoms. Nature Communications, 2023, 14, .	5.8	31
103	Nanostructured Carbon Nitride for Continuous-Flow Trifluoromethylation of (Hetero)arenes. ACS Sustainable Chemistry and Engineering, 2023, 11, 5284-5292.	3.2	4
104	Highly Efficient Wavelength-Resolved Electrochemiluminescence of Carbon Nitride Films for Ultrasensitive Multiplex MicroRNA Detection. Analytical Chemistry, 2023, 95, 6620-6628.	3.2	11
105	Unraveling the dual defect effects in C3N5 for piezo-photocatalytic degradation and H2O2 generation. Applied Catalysis B: Environmental, 2023, 332, 122752.	10.8	29
122	Recent progress of graphitic carbon nitride films and their application in photoelectrochemical water splitting. Sustainable Energy and Fuels, 0, , .	2.5	0
126	Multifunctional carbon nitride nanoarchitectures for catalysis. Chemical Society Reviews, 2023, 52, 7602-7664.	18.7	9