Zhenzhen Yang

List of Publications by Year
in descending order

106 papers	6,762 citations	53660 45 h-index	64668 79 g-index
114 all docs	114 docs citations	114 times ranked	6328 citing authors

#	Article	IF	Citations
1	Carbon dioxide utilization with Câ€"N bond formation: carbon dioxide capture and subsequent conversion. Energy and Environmental Science, 2012, 5, 6602.	15.6	446
2	CO2 chemistry: task-specific ionic liquids for CO2 capture/activation and subsequent conversion. RSC Advances, 2011, 1, 545.	1.7	335
3	Lewis Basic Ionic Liquidsâ€Catalyzed Conversion of Carbon Dioxide to Cyclic Carbonates. Advanced Synthesis and Catalysis, 2010, 352, 2233-2240.	2.1	252
4	A Protic Ionic Liquid Catalyzes CO₂ Conversion at Atmospheric Pressure and Room Temperature: Synthesis of Quinazolineâ€2,4(1<i>H</i>,3<i>H</i>)â€diones. Angewandte Chemie - International Edition, 2014, 53, 5922-5925.	7.2	213
5	Hierarchically Mesoporous <i>o</i>â€Hydroxyazobenzene Polymers: Synthesis and Their Applications in CO₂ Capture and Conversion. Angewandte Chemie - International Edition, 2016, 55, 9685-9689.	7.2	208
6	High-Entropy Perovskite Fluorides: A New Platform for Oxygen Evolution Catalysis. Journal of the American Chemical Society, 2020, 142, 4550-4554.	6.6	208
7	Equimolar CO₂ Capture by Nâ€Substituted Amino Acid Salts and Subsequent Conversion. Angewandte Chemie - International Edition, 2012, 51, 11306-11310.	7.2	206
8	CO2 capture and activation by superbase/polyethylene glycol and its subsequent conversion. Energy and Environmental Science, 2011, 4, 3971.	15.6	205
9	Highly efficient conversion of carbon dioxide catalyzed by polyethylene glycol-functionalized basic ionic liquids. Green Chemistry, 2012, 14, 519.	4.6	186
10	Imidazolium-Based Ionic Liquids Catalyzed Formylation of Amines Using Carbon Dioxide and Phenylsilane at Room Temperature. ACS Catalysis, 2015, 5, 4989-4993.	5.5	173
11	Eosinâ€…Yâ€Functionalized Conjugated Organic Polymers for Visibleâ€Lightâ€Driven CO₂ Reduction with H₂O to CO with High Efficiency. Angewandte Chemie - International Edition, 2019, 58, 632-636.	7.2	162
12	Transformation Strategy for Highly Crystalline Covalent Triazine Frameworks: From Staggered AB to Eclipsed AA Stacking. Journal of the American Chemical Society, 2020, 142, 6856-6860.	6.6	136
13	Lewis basic ionic liquids-catalyzed synthesis of 5-aryl-2-oxazolidinones from aziridines and CO2 under solvent-free conditions. Green Chemistry, 2010, 12, 1850.	4.6	126
14	Metalated Mesoporous Poly(triphenylphosphine) with Azo Functionality: Efficient Catalysts for CO₂ Conversion. ACS Catalysis, 2016, 6, 1268-1273.	5.5	122
15	Mesoporous nitrogen-doped carbons with high nitrogen contents and ultrahigh surface areas: synthesis and applications in catalysis. Green Chemistry, 2016, 18, 1976-1982.	4.6	120
16	Iron-catalyzed selective oxidation of sulfides to sulfoxides with the polyethylene glycol/O₂system. Green Chemistry, 2012, 14, 130-135.	4.6	113
17	In situ hydrogenation of captured CO2 to formate with polyethyleneimine and Rh/monophosphine system. Green Chemistry, 2013, 15, 2825.	4.6	112
18	Entropyâ€Driven Mechanochemical Synthesis of Polymetallic Zeolitic Imidazolate Frameworks for CO₂ Fixation. Angewandte Chemie - International Edition, 2019, 58, 5018-5022.	7.2	107

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19	Ionic Liquid-Catalyzed Câ€“S Bond Construction using CO₂ as a C1 Building Block under Mild Conditions: A Metal-Free Route to Synthesis of Benzothiazoles. ACS Catalysis, 2015, 5, 6648-6652.	5.5	105
20	Visible-Light-Driven Photoreduction of CO₂ to CH₄ over N,O,P-Containing Covalent Organic Polymer Submicrospheres. ACS Catalysis, 2018, 8, 4576-4581.	5.5	99
21	Methylation of C(sp³)â€“H/C(sp²)â€“H Bonds with Methanol Catalyzed by Cobalt System. Organic Letters, 2017, 19, 5228-5231.	2.4	94
22	Task-specific ionic liquid and CO₂-cocatalysed efficient hydration of propargylic alcohols to Î±-hydroxy ketones. Chemical Science, 2015, 6, 2297-2301.	3.7	93
23	Fluoro-functionalized polymeric ionic liquids: highly efficient catalysts for CO₂cycloaddition to cyclic carbonates under mild conditions. Green Chemistry, 2014, 16, 3724.	4.6	92
24	Two-in-one: construction of hydroxyl and imidazolium-bifunctionalized ionic networks in one-pot toward synergistic catalytic CO₂fixation. Chemical Communications, 2020, 56, 3309-3312.	2.2	92
25	Azoleâ€Anionâ€Based Aprotic Ionic Liquids: Functional Solvents for Atmospheric CO₂ Transformation into Various Heterocyclic Compounds. Chemistry - an Asian Journal, 2016, 11, 2735-2740.	1.7	91
26	Efficient Cobaltâ€Catalyzed Methylation of Amines Using Methanol. Advanced Synthesis and Catalysis, 2017, 359, 4278-4283.	2.1	90
27	B(C₆F₅)₃-catalyzed methylation of amines using CO₂ as a C1 building block. Green Chemistry, 2015, 17, 4189-4193.	4.6	89
28	Protic onium salts-catalyzed synthesis of 5-aryl-2-oxazolidinones from aziridines and CO2 under mild conditions. Green Chemistry, 2011, 13, 2351.	4.6	87
29	Mechanochemical synthesis of pillar[5]quinone derived multi-microporous organic polymers for radioactive organic iodide capture and storage. Nature Communications, 2020, 11, 1086.	5.8	87
30	Photoinduced Strong Metalâ€“Support Interaction for Enhanced Catalysis. Journal of the American Chemical Society, 2021, 143, 8521-8526.	6.6	85
31	Azo-functionalized microporous organic polymers: synthesis and applications in CO₂ capture and conversion. Chemical Communications, 2015, 51, 11576-11579.	2.2	83
32	Highly mesoporous carbons derived from biomass feedstocks templated with eutectic salt ZnCl₂/KCl. Journal of Materials Chemistry A, 2014, 2, 19324-19329.	5.2	80
33	Enhanced Oxygen Activation Achieved by Robust Single Chromium Atom-Derived Catalysts in Aerobic Oxidative Desulfurization. ACS Catalysis, 2022, 12, 8623-8631.	5.5	78
34	Experimental and theoretical studies on imidazolium ionic liquid-promoted conversion of fructose to 5-hydroxymethylfurfural. Green Chemistry, 2012, 14, 2752.	4.6	77
35	Surpassing Robeson Upper Limit for CO2/N2 Separation with Fluorinated Carbon Molecular Sieve Membranes. CheM, 2020, 6, 631-645.	5.8	73
36	An ultrastable heterostructured oxide catalyst based on high-entropy materials: A new strategy toward catalyst stabilization via synergistic interfacial interaction. Applied Catalysis B: Environmental, 2020, 276, 119155.	10.8	72

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37	Highly efficient SO2 absorption/activation and subsequent utilization by polyethylene glycol-functionalized Lewis basic ionic liquids. Physical Chemistry Chemical Physics, 2012, 14, 15832.	1.3	66
38	Highly Efficient SO₂Absorption and Its Subsequent Utilization by Weak Base/Polyethylene Glycol Binary System. Environmental Science & Technology, 2013, 47, 1598-1605.	4.6	64
39	Hierarchically Mesoporous <i>o</i>â€Hydroxyazobenzene Polymers: Synthesis and Their Applications in CO₂ Capture and Conversion. Angewandte Chemie, 2016, 128, 9837-9841.	1.6	61
40	Construction of a Nanoporous Highly Crystalline Hexagonal Boron Nitride from an Amorphous Precursor for Catalytic Dehydrogenation. Angewandte Chemie - International Edition, 2019, 58, 10626-10630.	7.2	55
41	An Efficient and General Method for Formylation of Aryl Bromides with CO₂ and Poly(methylhydrosiloxane). Chemistry - A European Journal, 2016, 22, 1097-1102.	1.7	54
42	Heteropolyanion-based ionic liquids catalysed conversion of cellulose into formic acid without any additives. Green Chemistry, 2014, 16, 4931-4935.	4.6	53
43	Mesoporous zirconium phosphonates as efficient catalysts for chemical CO₂ fixation. Green Chemistry, 2015, 17, 795-798.	4.6	49
44	Influence of fluorination on CO₂adsorption in materials derived from fluorinated covalent triazine framework precursors. Journal of Materials Chemistry A, 2019, 7, 17277-17282.	5.2	47
45	Fluoro-functionalized polymeric N-heterocyclic carbene-zinc complexes: efficient catalyst for formylation and methylation of amines with CO₂ as a C1-building block. RSC Advances, 2015, 5, 19613-19619.	1.7	46
46	Cuâ˘'Ni Bimetallic Hydroxide Catalyst for Efficient Electrochemical Conversion of 5â€Hydroxymethylfurfural to 2,5â€Furandicarboxylic Acid. ChemElectroChem, 2019, 6, 5797-5801.	1.7	45
47	N-Doped porous carbon nanotubes: synthesis and application in catalysis. Chemical Communications, 2017, 53, 929-932.	2.2	43
48	A rose bengal-functionalized porous organic polymer for carboxylative cyclization of propargyl alcohols with CO₂. Chemical Communications, 2019, 55, 12475-12478.	2.2	43
49	Sinter-Resistant Nanoparticle Catalysts Achieved by 2D Boron Nitride-Based Strong Metalâ€"Support Interactions: A New Twist on an Old Story. ACS Central Science, 2020, 6, 1617-1627.	5.3	42
50	Coordination effect-regulated CO₂capture with an alkali metal onium salts/crown ether system. Green Chemistry, 2014, 16, 253-258.	4.6	39
51	Rhodium-Catalyzed Formylation of Aryl Halides with CO₂ and H₂. Organic Letters, 2018, 20, 5130-5134.	2.4	37
52	Magnetic base catalysts for the chemical fixation of carbon dioxide to quinazoline-2,4(1H,3H)-diones. RSC Advances, 2014, 4, 28941-28946.	1.7	36
53	Atmospheric CO₂ promoted synthesis of N-containing heterocycles over B(C₆F₅)₃ catalyst. New Journal of Chemistry, 2016, 40, 8282-8287.	1.4	36
54	Highly Perfluorinated Covalent Triazine Frameworks Derived from a Lowâ€Temperature Ionothermal Approach Towards Enhanced CO₂ Electroreduction. Angewandte Chemie - International Edition, 2021, 60, 25688-25694.	7.2	36

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55	Topotactic Synthesis of Phosphabenzeneâ€Functionalized Porous Organic Polymers: Efficient Ligands in CO₂Conversion. Angewandte Chemie - International Edition, 2019, 58, 13763-13767.	7.2	32
56	Co-catalyzed Hydrogenation of Levulinic Acid to Î³-Valerolactone under Atmospheric Pressure. ACS Sustainable Chemistry and Engineering, 2019, 7, 18236-18241.	3.2	32
57	Ambient Temperature Graphitization Based on Mechanochemical Synthesis. Angewandte Chemie - International Edition, 2020, 59, 21935-21939.	7.2	32
58	Surpassing the Organic Cathode Performance for Lithium-Ion Batteries with Robust Fluorinated Covalent Quinazoline Networks. ACS Energy Letters, 2021, 6, 41-51.	8.8	32
59	Synthesis of metalloporphyrin-based conjugated microporous polymer spheres directed by bipyridine-type ligands. Chemical Communications, 2015, 51, 7352-7355.	2.2	30
60	Pyridine-functionalized organic porous polymers: applications in efficient CO₂ adsorption and conversion. New Journal of Chemistry, 2017, 41, 2869-2872.	1.4	29
61	A benzoquinone-derived porous hydrophenazine framework for efficient and reversible iodine capture. Chemical Communications, 2018, 54, 12706-12709.	2.2	28
62	Mesoporous imine-based organic polymer: catalyst-free synthesis in water and application in CO₂ conversion. Chemical Communications, 2018, 54, 7633-7636.	2.2	28
63	Entropyâ€Driven Mechanochemical Synthesis of Polymetallic Zeolitic Imidazolate Frameworks for CO₂ Fixation. Angewandte Chemie, 2019, 131, 5072-5076.	1.6	27
64	Benzene Ring Knitting Achieved by Ambientâ€Temperature Dehalogenation via Mechanochemical Ullmannâ€Type Reductive Coupling. Advanced Materials, 2021, 33, e2008685.	11.1	27
65	Visible-light-driven photoreduction of CO₂ to CO over porous nitrogen-deficient carbon nitride nanotubes. Catalysis Science and Technology, 2019, 9, 2485-2492.	2.1	26
66	Perovskite Oxideâ€“Halide Solid Solutions: A Platform for Electrocatalysts. Angewandte Chemie - International Edition, 2021, 60, 9953-9958.	7.2	26
67	Proline-Catalyzed Synthesis of 5-Aryl-2-oxazolidinones from Carbon Dioxide and Aziridines Under Solvent-Free Conditions. Synthetic Communications, 2012, 42, 62-74.	1.1	25
68	Reductive cleavage of inert aryl Câ€“O bonds to produce arenes. Chemical Communications, 2015, 51, 12212-12215.	2.2	25
69	Alkaline salt-promoted construction of hydrophilic and nitrogen deficient graphitic carbon nitride with highly improved photocatalytic efficiency. Journal of Materials Chemistry A, 2021, 9, 4700-4706.	5.2	23
70	From Highly Purified Boron Nitride to Boron Nitrideâ€Based Heterostructures: An Inorganic Precursorâ€Based Strategy. Advanced Functional Materials, 2019, 29, 1906284.	7.8	22
71	NaZSM-5-catalyzed dimethyl carbonate synthesis via the transesterification of ethylene carbonate with methanol. Canadian Journal of Chemistry, 2011, 89, 544-548.	0.6	20
72	<i>In situ</i> Acidic Carbon Dioxide/Ethanol System for Selective Oxybromination of Aromatic Ethers Catalyzed by Copper Chloride. Advanced Synthesis and Catalysis, 2011, 353, 3187-3195.	2.1	20

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73	Fabrication of Ionic Covalent Triazine Framework-Linked Membranes via a Facile Solâ€“Gel Approach. Chemistry of Materials, 2021, 33, 3386-3393.	3.2	20
74	CsF-promoted carboxylation of aryl(hetaryl) terminal alkynes with atmospheric CO₂ at room temperature. New Journal of Chemistry, 2017, 41, 9250-9255.	1.4	19
75	Eosinâ€…Yâ€Functionalized Conjugated Organic Polymers for Visibleâ€Lightâ€Driven CO₂ Reduction with H₂O to CO with High Efficiency. Angewandte Chemie, 2019, 131, 642-646.	1.6	19
76	Ethanol-mediated <i>N</i>-formylation of amines with CO₂/H₂ over cobalt catalysts. New Journal of Chemistry, 2018, 42, 13933-13937.	1.4	19
77	Nitrogen-doped microporous carbon materials with uniform pore diameters: Design and applications in CO2 and H2 adsorption. Microporous and Mesoporous Materials, 2020, 296, 109992.	2.2	19
78	What Fluorine Can Do in CO₂ Chemistry: Applications from Homogeneous to Heterogeneous Systems. ChemSusChem, 2020, 13, 6182-6200.	3.6	18
79	Role of Catalytic Materials on Conversion of Sulfur Species for Room Temperature Sodiumâ€“Sulfur Battery. Energy and Environmental Materials, 2022, 5, 693-710.	7.3	18
80	Graphitic Azaâ€Fused Ï€â€Conjugated Networks: Construction, Engineering, and Taskâ€Specific Applications. Advanced Materials, 2022, 34, e2107947.	11.1	17
81	Defect-Regulated Frustrated-Lewis-Pair Behavior of Boron Nitride in Ambient Pressure Hydrogen Activation. Journal of the American Chemical Society, 2022, 144, 10688-10693.	6.6	17
82	Reductive Coupling of CO₂, Primary Amine, and Aldehyde at Room Temperature: A Versatile Approach to Unsymmetrically <i>N</i>,<i>N</i>â€Disubstituted Formamides. Chemistry - A European Journal, 2017, 23, 9721-9725.	1.7	16
83	Cobalt-Catalyzed Synthesis of Unsymmetrically <i>N</i>,<i>N</i>-Disubstituted Formamides via Reductive Coupling of Primary Amines and Aldehydes with CO₂ and H₂. Organic Letters, 2018, 20, 6622-6626.	2.4	16
84	Ionic liquid/H₂O-mediated synthesis of mesoporous organic polymers and their application in methylation of amines. Chemical Communications, 2017, 53, 5962-5965.	2.2	15
85	Sequential protocol for C(sp)â€“H carboxylation with CO2: KOtBu-catalyzed C(sp)â€“H silylation and KOtBu-mediated carboxylation. Science China Chemistry, 2018, 61, 449-456.	4.2	15
86	Ultrasound-driven fabrication of high-entropy alloy nanocatalysts promoted by alcoholic ionic liquids. Nano Research, 2022, 15, 4792-4798.	5.8	13
87	<i>De novo</i>fabrication of multi-heteroatom-doped carbonaceous materials<i>via</i>an<i>in situ</i>doping strategy. Journal of Materials Chemistry A, 2020, 8, 4740-4746.	5.2	11
88	Electrochemically induced crystallization of amorphous materials in molten MgCl₂: boron nitride and hard carbon. Chemical Communications, 2020, 56, 2783-2786.	2.2	10
89	Hydrogenâ€Bondingâ€Mediated Synthesis of Atomically Thin TiO₂ Films with Exposed (001) Facets and Applications in Fast Lithium Insertion/Extraction. Chemistry - A European Journal, 2015, 21, 14608-14613.	1.7	9
90	Polyureas derived from CO₂ and diamines: highly efficient catalysts for Câ€“H arylation of benzene. New Journal of Chemistry, 2017, 41, 51-55.	1.4	9

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91	A succinct strategy for construction of nanoporous ionic organic networks from a pyrylium intermediate. Chemical Communications, 2019, 55, 13450-13453.	2.2	9
92	Photosensitive Hyper-Cross-Linked Polymers Derived from Three-Dimensional Ringlike Arenes: Promising Catalysts for Singlet-Oxygen Generation. ACS Sustainable Chemistry and Engineering, 2020, 8, 16320-16326.	3.2	9
93	CO₂ Chemisorption Behavior of Coordinationâ€Derived Phenolate Sorbents. ChemSusChem, 2021, 14, 2854-2859.	3.6	9
94	Mechanochemistryâ€Driven Construction of Azaâ€fused Ï€â€Conjugated Networks Toward Enhanced Energy Storage. Advanced Functional Materials, 2022, 32, .	7.8	9
95	Synthesis of chemicals using CO2 as a building block under mild conditions. Current Opinion in Green and Sustainable Chemistry, 2016, 1, 13-17.	3.2	8
96	Green synthesis of mesoporous MnNbO_x oxide by a liquid induced self-assembly strategy for low-temperature removal of NO_x. Chemical Communications, 2019, 55, 15073-15076.	2.2	8
97	Facile benzene reduction promoted by a synergistically coupled Cuâ€"Coâ€"Ce ternary mixed oxide. Chemical Science, 2020, 11, 5766-5771.	3.7	8
98	Mechanochemically Assisted Synthesis of High-Entropy Layer-Structured Dittmarite Analogues. ACS Applied Energy Materials, 2022, 5, 3290-3297.	2.5	8
99	Construction of a Nanoporous Highly Crystalline Hexagonal Boron Nitride from an Amorphous Precursor for Catalytic Dehydrogenation. Angewandte Chemie, 2019, 131, 10736-10740.	1.6	7
100	Benchmark CO2 separation achieved by highly fluorinated nanoporous molecular sieve membranes from nonporous precursor via in situ cross-linking. Journal of Membrane Science, 2021, 638, 119698.	4.1	6
101	Topotactic Synthesis of Phosphabenzeneâ€Functionalized Porous Organic Polymers: Efficient Ligands in CO 2 Conversion. Angewandte Chemie, 2019, 131, 13901-13905.	1.6	3
102	Ambient Temperature Graphitization Based on Mechanochemical Synthesis. Angewandte Chemie, 2020, 132, 22119-22123.	1.6	3
103	Perovskite Oxideâ€"Halide Solid Solutions: A Platform for Electrocatalysts. Angewandte Chemie, 2021, 133, 10041-10046.	1.6	3
104	CO 2 Chemisorption Behavior of Coordinationâ€Derived Phenolate Sorbents. ChemSusChem, 2021, 14, 2784-2784.	3.6	2
105	Highly Perfluorinated Covalent Triazine Frameworks Derived fromÂa Lowâ€Temperature IonothermalÂApproach Towards EnhancedÂCO2 Electroreduction. Angewandte Chemie, 2021, 133, 25892.	1.6	2
106	RÃ¼cktitelbild: Hierarchically Mesoporous <i>o</i>â€Hydroxyazobenzene Polymers: Synthesis and Their Applications in CO₂ Capture and Conversion (Angew. Chem. 33/2016). Angewandte Chemie, 2016, 128, 9948-9948.	1.6	1