

Qinghai Cai

List of Publications by Year in descending order

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236925

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76
docs citations

76
times ranked

2663
citing authors

#	ARTICLE	IF	CITATIONS
1	Single transition metal atom embedded into a MoS ₂ nanosheet as a promising catalyst for electrochemical ammonia synthesis. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9248-9255.	2.8	165
2	Coordination tunes the activity and selectivity of the nitrogen reduction reaction on single-atom iron catalysts: a computational study. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1240-1251.	10.3	135
3	Nitrogen electroreduction performance of transition metal dimers embedded into N-doped graphene: a theoretical prediction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4533-4543.	10.3	124
4	CO ₂ electroreduction performance of a single transition metal atom supported on porphyrin-like graphene: a computational study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 23113-23121.	2.8	117
5	Pyrrolic-nitrogen doped graphene: a metal-free electrocatalyst with high efficiency and selectivity for the reduction of carbon dioxide to formic acid: a computational study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5491-5498.	2.8	114
6	Removal of methylene blue from coloured effluents by adsorption onto SBA-15. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 616-619.	3.2	96
7	Highly selective oxidation of benzyl alcohol to benzaldehyde with hydrogen peroxide by biphasic catalysis. <i>Chemical Engineering Journal</i> , 2010, 162, 738-742.	12.7	82
8	Computational screening for high-activity MoS ₂ monolayer-based catalysts for the oxygen reduction reaction via substitutional doping with transition metal. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9842-9851.	10.3	81
9	Studies on synthesis of dimethyl carbonate from methanol and carbon dioxide. <i>Catalysis Communications</i> , 2009, 10, 605-609.	3.3	79
10	Single Ir atom anchored in pyrrolic-N ₄ doped graphene as a promising bifunctional electrocatalyst for the ORR/OER: a computational study. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 1005-1013.	9.4	78
11	Precursor template synthesis of three-dimensional mesoporous ZnO hierarchical structures and their photocatalytic properties. <i>CrystEngComm</i> , 2010, 12, 2166.	2.6	67
12	Electrochemical activation of carbon dioxide for synthesis of dimethyl carbonate in an ionic liquid. <i>Electrochimica Acta</i> , 2009, 54, 2912-2915.	5.2	61
13	Iron-chloride ionic liquid immobilized on SBA-15 for solvent-free oxidation of benzyl alcohol to benzaldehyde with H ₂ O ₂ . <i>Chemical Engineering Science</i> , 2015, 137, 268-275.	3.8	53
14	Solvent-free oxidation of toluene in an ionic liquid with H ₂ O ₂ as oxidant. <i>Chemical Engineering Journal</i> , 2013, 225, 266-270.	12.7	45
15	A functionalized basic ionic liquid for synthesis of dimethyl carbonate from methanol and CO ₂ . <i>Fuel Processing Technology</i> , 2013, 115, 233-237.	7.2	38
16	Synthesis of Dimethyl Carbonate from Methanol and Carbon dioxide using Potassium Methoxide as Catalyst under Mild Conditions. <i>Catalysis Letters</i> , 2005, 103, 225-228.	2.6	36
17	How to make inert boron nitride nanosheets active for the immobilization of polysulfides for lithium-sulfur batteries: a computational study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 18208-18216.	2.8	35
18	Tunable dimerization of <i>l</i> -methylstyrene catalyzed by acidic ionic liquids. <i>Applied Catalysis A: General</i> , 2005, 279, 139-143.	4.3	34

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19	Selective synthesis of dimethyl carbonate from urea and methanol over Fe ₂ O ₃ /HMCM-49. <i>Catalysis Science and Technology</i> , 2012, 2, 305-309.	4.1	34
20	One-Pot Synthesis of Dimethyl Carbonate from Methanol, Propylene Oxide and Carbon Dioxide Over Supported Choline hydroxide/MgO. <i>Catalysis Letters</i> , 2009, 128, 459-464.	2.6	33
21	SiC ₂ siligraphene as a promising anchoring material for lithium-sulfur batteries: a computational study. <i>Applied Surface Science</i> , 2018, 440, 889-896.	6.1	32
22	Electrochemical conversion of CO ₂ into dimethyl carbonate in a functionalized ionic liquid. <i>Journal of CO₂ Utilization</i> , 2013, 3-4, 98-101.	6.8	30
23	Enhanced catalytic activity of MXene for nitrogen electroreduction reaction by carbon doping. <i>Journal of Colloid and Interface Science</i> , 2021, 588, 1-8.	9.4	29
24	Selective solvent-free oxidation of toluene to benzaldehyde over zeolite supported iron. <i>Catalysis Communications</i> , 2013, 39, 115-118.	3.3	28
25	Two-dimensional IrN ₂ monolayer: An efficient bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. <i>Journal of Colloid and Interface Science</i> , 2021, 600, 711-718.	9.4	27
26	Tuning single metal atoms anchored on graphdiyne for highly efficient and selective nitrate electroreduction to ammonia under aqueous environments: A computational study. <i>Applied Surface Science</i> , 2022, 592, 153213.	6.1	27
27	Efficient electrochemical reduction of CO to C ₂ products on the transition metal and boron co-doped black phosphorene. <i>Chinese Chemical Letters</i> , 2022, 33, 2183-2187.	9.0	26
28	Electrochemical Conversion of Methanol and Carbon Dioxide to Dimethyl Carbonate at Graphite-Pt Electrode System. <i>Journal of the Electrochemical Society</i> , 2012, 159, E183-E186.	2.9	25
29	Hydroxyl-functionalized ionic liquid for activation and conversion of CO ₂ and methanol into dimethyl carbonate. <i>Journal of CO₂ Utilization</i> , 2015, 12, 49-53.	6.8	25
30	Two-dimensional iron-tetracyanoquinodimethane (Fe-TCNQ) monolayer: an efficient electrocatalyst for the oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 72952-72958.	3.6	22
31	Electrochemical synthesis of dimethyl carbonate from methanol, CO ₂ and propylene oxide in an ionic liquid. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 1413-1417.	3.2	19
32	Highly selective oxidation of styrene to benzaldehyde over Fe ₃ O ₄ using H ₂ O ₂ aqueous solution as oxidant. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2018, 125, 743-756.	1.7	18
33	Highly selective synthesis of propylene glycol ether from methanol and propylene oxide catalyzed by basic ionic liquid. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 105-108.	3.2	17
34	Reclamation of acid pickling waste: A facile route for preparation of single-phase Fe ₃ O ₄ nanoparticle. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 381, 401-404.	2.3	17
35	A novel strategy for conversion of methanol and CO ₂ into dimethoxymethane in a basic ionic liquid. <i>Journal of Molecular Catalysis A</i> , 2016, 421, 117-121.	4.8	17
36	Comparison of PAH content, potential risk in vegetation, and bare soil near Daqing oil well and evaluating the effects of soil properties on PAHs. <i>Environmental Science and Pollution Research</i> , 2019, 26, 25071-25083.	5.3	17

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37	VOx molecular level grafted g-C3N4 for highly selective oxidation of methanol to dimethoxymethane. <i>Molecular Catalysis</i> , 2019, 469, 48-56.	2.0	17
38	Supported Cu ₃ clusters on graphitic carbon nitride as an efficient catalyst for CO electroreduction to propene. <i>Journal of Materials Chemistry A</i> , 2022, 10, 14460-14469.	10.3	17
39	Synthesis, Structure and Properties of (H ₂ NCH ₂ CH ₂ NH ₃) ₃ [(VO) ₆ [B ₁₀ O ₁₆ (OH) ₆] ₂]·11H ₂ O. <i>Journal of Chemical Crystallography</i> , 2008, 38, 321-325.	1.1	15
40	An organic polymer-grafted ionic liquid as a catalyst for the cycloaddition of CO ₂ to epoxides. <i>New Journal of Chemistry</i> , 2017, 41, 387-392.	2.8	15
41	Nano metal oxides as efficient catalysts for selective synthesis of 1-methoxy-2-propanol from methanol and propylene oxide. <i>RSC Advances</i> , 2018, 8, 4478-4482.	3.6	15
42	Size-dependent electrocatalytic activity of ORR/OER on palladium nanoclusters anchored on defective MoS ₂ monolayers. <i>New Journal of Chemistry</i> , 2020, 44, 16135-16143.	2.8	15
43	A metallic Cu ₂ N monolayer with planar tetracoordinated nitrogen as a promising catalyst for CO ₂ electroreduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1560-1568.	10.3	13
44	Effect of acidic and red-ox sites over modified ZSM-5 surface on selectivity in oxidation of toluene. <i>Molecular Catalysis</i> , 2017, 442, 20-26.	2.0	12
45	Single transition metal atoms anchored on a C ₂ N monolayer as efficient catalysts for hydrazine electrooxidation. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 16691-16700.	2.8	12
46	A Simple Polyoxometallate for Selective Oxidation of Benzyl Alcohol to Benzaldehyde with Hydrogen Peroxide. <i>Chinese Journal of Chemistry</i> , 2012, 30, 433-437.	4.9	11
47	Pyridine derivative/graphene nanoribbon composites as molecularly tunable heterogeneous electrocatalysts for the oxygen reduction reaction. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5040-5047.	2.8	11
48	Highly selective oxidation of methanol to dimethoxymethane over SO ₄ ²⁻ /V ₂ O ₅ ·ZrO ₂ . <i>New Journal of Chemistry</i> , 2017, 41, 8370-8376.	2.8	11
49	Tunable oxidation of styrene to benzaldehyde and benzoic acid over Co/ZSM-5. <i>New Journal of Chemistry</i> , 2021, 45, 18192-18201.	2.8	11
50	Environmentally benign alcoholysis of urea and disubstituted urea to alkyl carbamates over alkali-treated zeolites. <i>Microporous and Mesoporous Materials</i> , 2017, 248, 108-114.	4.4	10
51	Highly Selective Oxidation of Styrene Over FeCl ₃ -Imidazolium Ionic Liquid Grafted SBA-15. <i>Catalysis Letters</i> , 2019, 149, 2994-2999.	2.6	10
52	An atom-economic reaction for synthesis of 1-phenoxy-2-propanol over Al ₂ O ₃ /MgO. <i>Applied Catalysis A: General</i> , 2011, 408, 125-129.	4.3	9
53	Photodegradation of naphthalene over Fe ₃ O ₄ under visible light irradiation. <i>Royal Society Open Science</i> , 2019, 6, 181779.	2.4	9
54	Copper vanadate nanowires on g-C ₃ N ₄ toward highly selective oxidation of methanol to dimethoxymethane. <i>Applied Surface Science</i> , 2021, 548, 149180.	6.1	9

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55	Reclamation of Acid Pickling Waste: Preparation of Nano Fe_2O_3 and Its Catalytic Performance. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 20085-20091.	3.7	8
56	Selective oxidation of methanol to dimethoxymethane over iron and vanadate modified phosphotungstate. <i>Applied Surface Science</i> , 2022, 574, 151516.	6.1	8
57	$\text{Fe}_3\text{O}_4/\text{g-C}_3\text{N}_4\text{-CeO}_x$ fabricated by in situ-reduction towards solvent-free oxidation of styrene to benzaldehyde. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 616, 126309.	4.7	7
58	Boosting nitrogen reduction on single Mo atom by tuning its coordination environment. <i>Sustainable Energy and Fuels</i> , 2021, 5, 6488-6497.	4.9	7
59	Ionic Liquid Dispersed Ti/SBA-15 for Double-Bond Cleavage Oxidation of α -Methylstyrene into Acetophenone. <i>Catalysis Letters</i> , 2019, 149, 3491-3500.	2.6	6
60	$\text{SO}_4^{2-}/\text{Fe}/\text{V}/\text{ZrO}_2$ Composite for Selective Oxidation of Styrene to Benzaldehyde in H_2O_2 Aqueous Solution. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 4411-4418.	3.7	6
61	Tunable synthesis of propylene glycol ether from methanol and propylene oxide under ambient pressure. <i>Kinetics and Catalysis</i> , 2011, 52, 386-390.	1.0	5
62	Deoxygenation Reaction in Room Temperature Ionic Liquids under Mild Conditions. <i>Chinese Journal of Chemistry</i> , 2011, 29, 1846-1850.	4.9	5
63	DFT-based study on the mechanisms of the oxygen reduction reaction on $\text{Co}(\text{acetylacetonate})_2$ supported by N-doped graphene nanoribbon. <i>RSC Advances</i> , 2016, 6, 79662-79667.	3.6	5
64	An Efficient Route for Electrooxidation of Methanol to Dimethoxymethane Using Ionic Liquid as Electrolyte. <i>Journal of the Electrochemical Society</i> , 2017, 164, H5074-H5077.	2.9	5
65	Catalytic oxidation of styrene and its reaction mechanism consideration over bimetal modified phosphotungstates. <i>Molecular Catalysis</i> , 2021, 515, 111940.	2.0	5
66	An efficient strategy for formation of C-N bond by benzyl chloride over nano Fe_2O_3 . <i>Molecular Catalysis</i> , 2017, 431, 27-31.	2.0	4
67	Vacancy-induced high activity of MoS_2 monolayers for CO electroreduction: a computational study. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4932-4943.	4.9	4
68	A Magnetically Separable Catalyst for Synthesis of α -Phenoxypropanol Via Atom-economic Reaction. <i>Journal of the Chinese Chemical Society</i> , 2014, 61, 1084-1088.	1.4	3
69	$\text{VO}_x\text{-MoO}_y$ single molecular layer modified graphitic carbon nitride polymer for enhanced selective styrene oxidation. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, , .	5.8	3
70	A Pt_3 cluster anchored on a C_2N monolayer as an efficient catalyst for electrochemical reduction of nitrobenzene to aniline: a computational study. <i>New Journal of Chemistry</i> , 2021, 45, 21270-21277.	2.8	3
71	A Composite $\text{Fe}/\text{g-C}_3\text{N}_4$ for Liquid-Phase Selective Oxidation of Methanol with O_2 Oxidant. <i>Catalysis Letters</i> , 2021, 151, 909-919.	2.6	2
72	Ionothermal synthesis and structural characterization of $[\text{Cu}(\text{C}_4\text{H}_6\text{N}_2)_4]\text{Br}_2$ and $[\text{Ni}(\text{C}_4\text{H}_6\text{N}_2)_4]\text{Br}_2$. <i>Journal of Chemical Sciences</i> , 2015, 127, 1261-1265.	1.5	1

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73	Mixed Oxides FeVO _x for Selective Oxidation of Octanol to Octanal under Solvent-free Condition. Journal of the Chinese Chemical Society, 2015, 62, 722-727.	1.4	1
74	Ionothermal Synthesis in an Ionic Liquid and Crystal Structure of [C ₄ H ₁₂ N ₂] [CoCl ₄]. Journal of Chemical Research, 2016, 40, 475-477.	1.3	1
75	Iron and molybdenum modified phosphotungstates towards selective oxidation of styrene to benzaldehyde. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 642, 128736.	4.7	1