Xian-Tai Zhou

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Manganese porphyrin-mediated aerobic epoxidation of propylene with isoprene: A new strategy for simultaneously preparing propylene epoxide and isoprene monoxide. Chinese Chemical Letters, 2023, 34, 107658.	9.0	1
2	Hybrid method integrating machine learning and particle swarm optimization for smart chemical process operations. Frontiers of Chemical Science and Engineering, 2022, 16, 274-287.	4.4	19
3	Liquid-phase epoxidation of propylene with molecular oxygen by chloride manganese meso-tetraphenylporphyrins. Chinese Journal of Chemical Engineering, 2022, 48, 61-65.	3.5	1
4	TiO2 nanotube arrays sensitized by copper (II) porphyrins with efficient interfacial charge transfer for the photocatalytic degradation of 4-nitrophenol. Journal of Hazardous Materials, 2022, 422, 126869.	12.4	25
5	Oxygen Atom Transfer Mechanism for <scp>Vanadiumâ€Oxo</scp> Porphyrin Complexes Mediated Aerobic Olefin Epoxidation. Chinese Journal of Chemistry, 2022, 40, 115-122.	4.9	10
6	A metal-free hydroxyl functionalized quaternary phosphine type ionic liquid polymer for cycloaddition of CO ₂ and epoxides. Dalton Transactions, 2022, 51, 1303-1307.	3.3	10
7	Enhanced oxygen transfer over bifunctional Mo-based oxametallacycle catalyst for epoxidation of propylene. Journal of Colloid and Interface Science, 2022, 611, 564-577.	9.4	12
8	Progress in the application of metalloporphyrins compounds in catalytic oxidation reactions. Scientia Sinica Chimica, 2022, 52, 1224-1238.	0.4	1
9	Sustainable synthesis of multifunctional porous metalloporphyrin polymers for efficient carbon dioxide transformation under mild conditions. Chemical Engineering Science, 2021, 232, 116380.	3.8	26
10	Substrate specificity in the biomimetic catalytic aerobic oxidation of styrene and cyclohexanone by metalloporphyrins: kinetics and mechanistic study. Green Chemical Engineering, 2021, 2, 217-223.	6.3	4
11	Dynamic Covalent Bonds of Si-OR and Si-OSi Enabled A Stiff Polymer to Heal and Recycle at Room Temperature. Materials, 2021, 14, 2680.	2.9	5
12	Enhancement of the visible-light absorption and charge mobility in a zinc porphyrin polymer/g-C3N4 heterojunction for promoting the oxidative coupling of amines. Applied Catalysis B: Environmental, 2021, 285, 119863.	20.2	49
13	Enhanced selective removal of Pb(II) by modification low-cost bio-sorbent: Experiment and theoretical calculations. Journal of Cleaner Production, 2021, 316, 128372.	9.3	38
14	Efficient catalytic oxidation of primary benzylic C H bonds with molecular oxygen catalyzed by cobalt porphyrins and N-hydroxyphthalimide (NHPI) in supercritical carbon dioxide. Catalysis Communications, 2021, 159, 106353.	3.3	8
15	Mechanism and kinetics of the aerobic oxidation of benzyl alcohol to benzaldehyde catalyzed by cobalt porphyrin in a membrane microchannel reactor. Chemical Engineering Science, 2021, 245, 116847.	3.8	9
16	Efficient selective oxidation of alcohols to carbonyl compounds catalyzed by Ru-terpyridine complexes with molecular oxygen. Inorganic Chemistry Communication, 2020, 112, 107544.	3.9	9
17	Zinc porphyrin-based electron donor–acceptor-conjugated microporous polymer for the efficient photocatalytic oxidative coupling of amines under visible light. Applied Catalysis A: General, 2020, 590, 117352.	4.3	21
18	Tubular metal organic frameworks from the curvature of 2D-honeycombed metal coordination. Dalton Transactions, 2020, 49, 2403-2406.	3.3	3

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19	Hybridization of CuO with Bi ₂ MoO ₆ Nanosheets as a Surface Multifunctional Photocatalyst for Toluene Oxidation under Solar Irradiation. ACS Applied Materials & Interfaces, 2020, 12, 2259-2268.	8.0	50
20	Click-Based Porous Ionic Polymers with Intercalated High-Density Metalloporphyrin for Sustainable CO ₂ Transformation. Industrial & Engineering Chemistry Research, 2020, 59, 20269-20277.	3.7	26
21	Highly efficient mixed-metal spinel cobaltite electrocatalysts for the oxygen evolution reaction. Chinese Journal of Catalysis, 2020, 41, 1855-1863.	14.0	39
22	Highly Efficient Aerobic Oxidation of Cyclohexene Catalyzed by Iron(III) Porphyrins in Supercritical Carbon Dioxide. ECS Journal of Solid State Science and Technology, 2020, 9, 041014.	1.8	4
23	Biomimetic Aerobic Epoxidation of Alkenes Catalyzed by Cobalt Porphyrin under Ambient Conditions in the Presence of Sunflower Seeds Oil as a Co-Substrate. ACS Omega, 2020, 5, 4890-4899.	3.5	12
24	Efficient Selective Removal of Pb(II) by Using 6-Aminothiouracil-Modified Zr-Based Organic Frameworks: From Experiments to Mechanisms. ACS Applied Materials & Interfaces, 2020, 12, 7162-7178.	8.0	99
25	Cyclohexene Promoted Efficient Biomimetic Oxidation of Alcohols to Carbonyl Compounds Catalyzed by Manganese Porphyrin under Mild Conditions. Chinese Journal of Chemistry, 2020, 38, 458-464.	4.9	12
26	A Carbazolyl Porphyrinâ€Based Conjugated Microporous Polymer for Metalâ€Free Photocatalytic Aerobic Oxidation Reactions. ChemCatChem, 2020, 12, 3523-3529.	3.7	24
27	Acetylacetone as an oxygen activator to improve efficiency for aerobic oxidation of toluene and its derivatives by using cobalt <i>meso</i> -tetraphenylporphyrin. New Journal of Chemistry, 2020, 44, 10286-10291.	2.8	10
28	Cerium(IV) Sulfate as a Cocatalyst for Promoting the Direct Epoxidation of Propylene by Ruthenium Porphyrin with Molecular Oxygen. Industrial & Engineering Chemistry Research, 2020, 59, 19982-19988.	3.7	7
29	lonic Liquid-Modified Co/ZSM-5 Catalyzed the Aerobic Oxidation of Cyclohexane: Toward Improving the Activity and Selectivity. Industrial & Engineering Chemistry Research, 2019, 58, 19832-19838.	3.7	15
30	Preparation of cytochrome P450 enzyme-cobalt phosphate hybrid nano-flowers for oxidative coupling of benzylamine. Enzyme and Microbial Technology, 2019, 131, 109386.	3.2	15
31	Facile Synthesis of Metalloporphyrins-Ba2+ Composites as Recyclable and Efficient Catalysts for Olefins Epoxidation Reactions. Chemical Research in Chinese Universities, 2019, 35, 251-255.	2.6	2
32	lonic liquids modified cobalt/ZSM-5 as a highly efficient catalyst for enhancing the selectivity towards KA oil in the aerobic oxidation of cyclohexane. Open Chemistry, 2019, 17, 639-646.	1.9	8
33	Efficient and selective oxidation of alcohols to carbonyl compounds at room temperature by a ruthenium complex catalyst and hydrogen peroxide. New Journal of Chemistry, 2019, 43, 19415-19421.	2.8	7
34	A novel system comprising metalloporphyrins and cyclohexene for the biomimetic aerobic oxidation of toluene. Catalysis Communications, 2018, 109, 76-79.	3.3	23
35	Function-oriented ionic polymers having high-density active sites for sustainable carbon dioxide conversion. Journal of Materials Chemistry A, 2018, 6, 9172-9182.	10.3	91
36	Biâ€, Y odoped TiO2 for Carbon Dioxide Photocatalytic Reduction to Formic Acid under Visible Light Irradiation. Chinese Journal of Chemistry, 2018, 36, 538-544.	4.9	15

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37	Mechanistic Understanding towards the Role of Cyclohexene in Enhancing the Efficiency of Manganese Porphyrinâ€Catalyzed Aerobic Oxidation of Diphenylmethane. European Journal of Inorganic Chemistry, 2018, 2018, 2666-2674.	2.0	16
38	Imidazolium-based ionic liquid decorated zinc porphyrin catalyst for converting CO ₂ into five-membered heterocyclic molecules. Sustainable Energy and Fuels, 2018, 2, 125-132.	4.9	59
39	Metalloporphyrin Polymers with Intercalated Ionic Liquids for Synergistic CO ₂ Fixation via Cyclic Carbonate Production. ACS Sustainable Chemistry and Engineering, 2018, 6, 1074-1082.	6.7	115
40	Photocatalytic Properties and Mechanistic Insights into Visible Lightâ€Promoted Aerobic Oxidation of Sulfides to Sulfoxides via Tin Porphyrinâ€Based Porous Aromatic Frameworks. Advanced Synthesis and Catalysis, 2018, 360, 4402-4411.	4.3	67
41	Tannic Acid as a Polyphenol Materialâ€Assisted Synthesis of Cyclic Carbonates Using CO ₂ as a Feedstock: Kinetic Characteristic and Mechanism Studies. Chinese Journal of Chemistry, 2017, 35, 659-664.	4.9	20
42	Recyclable bifunctional aluminum salen catalyst for CO2 fixation: the efficient formation of five-membered heterocyclic compounds. Science China Chemistry, 2017, 60, 979-989.	8.2	29
43	Charged Metalloporphyrin Polymers for Cooperative Synthesis of Cyclic Carbonates from CO ₂ under Ambient Conditions. ChemSusChem, 2017, 10, 2534-2541.	6.8	122
44	Transformation of carbon dioxide into valuable chemicals over bifunctional metallosalen catalysts bearing quaternary phosphonium salts. Chinese Journal of Catalysis, 2017, 38, 736-744.	14.0	15
45	Promoting the aerobic Baeyer-Villiger oxidation of ketones over carboxylic multi-walled carbon nanotubes. Molecular Catalysis, 2017, 438, 152-158.	2.0	19
46	Cytochrome <scp>P450</scp> Enzymeâ€Copper Phosphate Hybrid Nanoâ€Flowers with Superior Catalytic Performances for Selective Oxidation of Sulfides. Chinese Journal of Chemistry, 2017, 35, 693-698.	4.9	21
47	Selfâ€assembled metalloporphyrins–inorganic hybrid flowers and their application to efficient epoxidation of olefins. Journal of Chemical Technology and Biotechnology, 2017, 92, 2594-2605.	3.2	12
48	Stateâ€ofâ€theâ€Art Aluminum Porphyrinâ€based Heterogeneous Catalysts for the Chemical Fixation of CO ₂ into Cyclic Carbonates at Ambient Conditions. ChemCatChem, 2017, 9, 767-773.	3.7	111
49	Metallosalenâ€Based Ionic Porous Polymers as Bifunctional Catalysts for the Conversion of CO ₂ into Valuable Chemicals. ChemSusChem, 2017, 10, 1526-1533.	6.8	77
50	Metalloporphyrin-mediated aerobic oxidation of hydrocarbons in cumene: Co-substrate specificity and mechanistic consideration. Molecular Catalysis, 2017, 440, 36-42.	2.0	23
51	Zinc phthalocyanine as an efficient catalyst for halogen-free synthesis of formamides from amines via carbon dioxide hydrosilylation under mild conditions. Chinese Journal of Catalysis, 2017, 38, 1382-1389.	14.0	10
52	Cooperative Catalytic Activation of Siâ^'H Bonds: CO ₂ â€Based Synthesis of Formamides from Amines and Hydrosilanes under Mild Conditions. ChemSusChem, 2017, 10, 1224-1232.	6.8	66
53	Recyclable Pd supported catalysts with low loading for efficient epoxidation of olefins at ambient conditions. Catalysis Communications, 2016, 83, 78-81.	3.3	14
54	Insight into the cocatalyst effect of 4A molecular sieve on Sn(II) porphyrin-catalyzed B–V oxidation of cyclohexanone. Catalysis Today, 2016, 264, 191-197.	4.4	29

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55	Direct aerobic liquid phase epoxidation of propylene catalyzed by Mn(<scp>iii</scp>) porphyrin under mild conditions: evidence for the existence of both peroxide and Mn(<scp>iv</scp>)-oxo species from in situ characterizations. RSC Advances, 2015, 5, 30014-30020.	3.6	27
56	Metal- and solvent-free synthesis of cyclic carbonates from epoxides and CO2 in the presence of graphite oxide and ionic liquid under mild conditions: A kinetic study. Carbon, 2015, 82, 1-11.	10.3	75
57	Highly efficient synthesis of cyclic carbonates from epoxides catalyzed by salen aluminum complexes with built-in "CO ₂ capture―capability under mild conditions. Green Chemistry, 2014, 16, 1496-1506.	9.0	125
58	New bi-functional zinc catalysts based on robust and easy-to-handle N-chelating ligands for the synthesis of cyclic carbonates from epoxides and CO ₂ under mild conditions. Green Chemistry, 2014, 16, 4179-4189.	9.0	88
59	Highly efficient selective oxidation of sulfides to sulfoxides by montmorillonite-immobilized metalloporphyrins in the presence of molecular oxygen. Catalysis Communications, 2014, 53, 29-32.	3.3	28
60	Enhanced catalytic activity and recyclability for oxidation of cinnamaldehyde catalysed by β-cyclodextrin cross-linked with chitosan. Supramolecular Chemistry, 2013, 25, 233-245.	1.2	15
61	Highly efficient oxidation of diphenylmethane to benzophenone employing a novel ruthenium catalyst with tert-butylhydroperoxide under mild conditions. Catalysis Communications, 2013, 37, 60-63.	3.3	6
62	Remarkable differences between benzaldehyde and isobutyraldehyde as coreductant in the performance towardÂthe iron(III) porphyrins-catalyzed aerobic Baeyer–Villiger oxidation of cyclohexanone, kinetic and mechanistic features. Tetrahedron, 2013, 69, 4241-4246.	1.9	30
63	Solvent-free selective oxidation of primary and secondary alcohols catalyzed by ruthenium-bis(benzimidazole)pyridinedicarboxylate complex using hydrogen peroxide as an oxidant. Tetrahedron Letters, 2013, 54, 3882-3885.	1.4	40
64	Kinetic and mechanism of the aqueous selective oxidation of sulfides to sulfoxides: insight into the cytochrome P450-like oxidative metabolic process. Journal of Porphyrins and Phthalocyanines, 2013, 17, 1104-1112.	0.8	7
65	Oxidative cleavage of CÂ=ÂC bond of cinnamaldehyde to benzaldehyde in the presence of β-cyclodextrin under mild conditions. Supramolecular Chemistry, 2012, 24, 247-254.	1.2	5
66	β-Cyclodextrin polymer promoted green synthesis of cinnamaldehyde to natural benzaldehyde in aqueous solution. Supramolecular Chemistry, 2012, 24, 379-384.	1.2	8
67	Mechanism into selective oxidation of cinnamaldehyde using β-cyclodextrin polymer as phase-transfer catalyst. Tetrahedron, 2012, 68, 5912-5919.	1.9	29
68	Cocatalytic effect of cobalt acetate on aerobic cyclohexene oxidation catalyzed by manganese porphyrin. Catalysis Communications, 2012, 27, 169-173.	3.3	24
69	Highly Efficient Oxidative Cleavage of Carbon arbon Double Bond over <i>meso</i> â€Tetraphenyl Cobalt Porphyrin Catalyst in the Presence of Molecular Oxygen. Chinese Journal of Chemistry, 2012, 30, 2103-2108.	4.9	23
70	Photocatalytic Degradation of Methyl Orange over Metalloporphyrins Supported on TiO2 Degussa P25. Molecules, 2012, 17, 1149-1158.	3.8	103
71	Manganese porphyrin immobilized on montmorillonite: a highly efficient and reusable catalyst for the aerobic epoxidation of olefins under ambient conditions. Journal of Porphyrins and Phthalocyanines, 2012, 16, 1032-1039.	0.8	15
72	Immobilization of β-Cyclodextrin as Insoluble β-Cyclodextrin Polymer and Its Catalytic Performance. Chinese Journal of Chemical Engineering, 2012, 20, 784-792.	3.5	22

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73	Cobalt Porphyrin Immobilized on Montmorillonite: A Highly Efficient and Reusable Catalyst for Aerobic Oxidation of Alcohols to Carbonyl Compounds. Chinese Journal of Catalysis, 2012, 33, 1906-1912.	14.0	18
74	Mimicking the environment of living organisms to achieve the oxidative coupling of amines to imines catalyzed by water-soluble metalloporphyrins. Tetrahedron Letters, 2012, 53, 3369-3373.	1.4	24
75	Advance in the Construction and Application of Cyclodextrin- Porphyrin Supramolecular System. Chinese Journal of Organic Chemistry, 2012, 32, 686.	1.3	4
76	Efficient Solvent-free Synthesis of Chloropropene Carbonate from the Coupling Reaction of CO2 and Epichlorohydrin Catalyzed by Magnesium Porphyrins as Chlorophyll-like Catalysts. Chinese Journal of Chemical Engineering, 2011, 19, 446-451.	3.5	22
77	Biomimetic models of nitric oxide synthase for the oxidation of oximes to carbonyl compounds catalyzed by water-soluble manganese porphyrins in aqueous solution. Journal of Porphyrins and Phthalocyanines, 2011, 15, 211-216.	0.8	4
78	Synthesis and cytotoxic evaluation of 1-carboxamide and 1-amino side chain substituted β-carbolines. European Journal of Medicinal Chemistry, 2010, 45, 5513-5519.	5.5	23
79	Highly efficient controllable oxidation of alcohols to aldehydes and acids with sodium periodate catalyzed by water-soluble metalloporphyrins as biomimetic catalyst. Bioorganic and Medicinal Chemistry, 2010, 18, 8144-8149.	3.0	30
80	Biomimetic kinetics and mechanism of cyclohexene epoxidation catalyzed by metalloporphyrins. Chemical Engineering Journal, 2010, 156, 411-417.	12.7	63
81	Styrene-hydroxyethyl methacrylate copolymer-supported porphyrinatomanganese(III) complexes: synthesis and catalytic cyclohexane hydroxylation with molecular oxygen. Transition Metal Chemistry, 2010, 35, 627-632.	1.4	7
82	Styrene–hydroxyethyl methacrylate copolymer microsphere immobilized porphyrinatomanganese(III) as a mild, reusable and highly efficient catalyst for epoxidation of cyclohexene with molecular oxygen. Journal of Molecular Catalysis A, 2010, 331, 29-34.	4.8	11
83	Green synthesis of natural benzaldehyde from cinnamon oil catalyzed byÂhydroxypropyl-β-cyclodextrin. Tetrahedron, 2010, 66, 9888-9893.	1.9	34
84	Highly efficient aerobic oxidation of oximes to carbonyl compounds catalyzed by metalloporphyrins in the presence of benzaldehyde. Tetrahedron Letters, 2010, 51, 613-617.	1.4	50
85	Efficient oxidative coupling of amines to imines catalyzed by manganese(III) meso-tetraphenylporphyrin chloride under ambient conditions. Catalysis Communications, 2010, 12, 202-206.	3.3	37
86	Remarkable enhancement of aerobic epoxidation reactivity for olefins catalyzed by μ-oxo-bisiron(III) porphyrins under ambient conditions. Tetrahedron Letters, 2009, 50, 6601-6605.	1.4	44
87	Aerobic oxidative cleavage of cinnamaldehyde to benzaldehyde catalyzed by metalloporphyrins under mild conditions. Catalysis Communications, 2009, 10, 828-832.	3.3	55
88	Baeyer-Villiger oxidation of ketones catalyzed by iron(III) <i>meso</i> -tetraphenylporphyrin chloride in the presence of molecular oxygen. Journal of Porphyrins and Phthalocyanines, 2008, 12, 94-100.	0.8	43
89	Enzymatic-like mediated olefins epoxidation by molecular oxygen under mild conditions. Tetrahedron Letters, 2007, 48, 2691-2695.	1.4	45
90	Highly efficient selective oxidation of alcohols to carbonyl compounds catalyzed by ruthenium (III) meso-tetraphenylporphyrin chloride in the presence of molecular oxygen. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 6364-6368.	2.2	72

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91	Selective oxidation of sulfides to sulfoxides catalyzed by ruthenium (III) meso-tetraphenylporphyrin chloride in the presence of molecular oxygen. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 4650-4653.	2.2	70
92	Nâ€hydroxyphthalimide Catalyzed Epoxidation of Inactive Aliphatic Olefins with Air at Room Temperature. Asian Journal of Organic Chemistry, 0, , .	2.7	0