Mahdi M Abu-Omar

List of Publications by Year
in descending order

191 papers	13,452 citations	18482 62 h-index	24258 110 g-index
196 all docs	196 docs citations	196 times ranked	11567 citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation Rates of Plastics in the Environment. ACS Sustainable Chemistry and Engineering, 2020, 8, 3494-3511.	6.7	1,463
2	Reaction Mechanisms of Mononuclear Non-Heme Iron Oxygenases. Chemical Reviews, 2005, 105, 2227-2252.	47.7	521
3	Advances in 5-hydroxymethylfurfural production from biomass in biphasic solvents. Green Chemistry, 2014, 16, 24-38.	9.0	470
4	Guidelines for performing lignin-first biorefining. Energy and Environmental Science, 2021, 14, 262-292.	30.8	416
5	Polyethylene upcycling to long-chain alkylaromatics by tandem hydrogenolysis/aromatization. Science, 2020, 370, 437-441.	12.6	378
6	A synergistic biorefinery based on catalytic conversion of lignin prior to cellulose starting from lignocellulosic biomass. Green Chemistry, 2015, 17, 1492-1499.	9.0	370
7	Conversion of carbohydrates and lignocellulosic biomass into 5-hydroxymethylfurfural using AlCl₃Â·6H₂O catalyst in a biphasic solvent system. Green Chemistry, 2012, 14, 509-513.	9.0	298
8	Cleavage and hydrodeoxygenation (HDO) of Câ€“O bonds relevant to lignin conversion using Pd/Zn synergistic catalysis. Chemical Science, 2013, 4, 806-813.	7.4	294
9	Upgrading Furfurals to Drop-in Biofuels: An Overview. ACS Sustainable Chemistry and Engineering, 2015, 3, 1263-1277.	6.7	259
10	Recyclable and Malleable Epoxy Thermoset Bearing Aromatic Imine Bonds. Macromolecules, 2018, 51, 9816-9824.	4.8	241
11	Direct conversion of cellulose and lignocellulosic biomass into chemicals and biofuel with metal chloride catalysts. Journal of Catalysis, 2012, 288, 8-15.	6.2	232
12	Total Utilization of Miscanthus Biomass, Lignin and Carbohydrates, Using Earth Abundant Nickel Catalyst. ACS Sustainable Chemistry and Engineering, 2016, 4, 2316-2322.	6.7	182
13	Porphyrin-based porous organic polymer-supported iron(III) catalyst for efficient aerobic oxidation of 5-hydroxymethyl-furfural into 2,5-furandicarboxylic acid. Journal of Catalysis, 2013, 299, 316-320.	6.2	179
14	Rhenium oxo complexes in catalytic oxidations. Catalysis Today, 2000, 55, 317-363.	4.4	174
15	Synthesis of Furfural from Xylose, Xylan, and Biomass Using AlCl₃â‹…6â€‰H₂O in Biphasic Media via Xylose Isomerization to Xylulose. ChemSusChem, 2012, 5, 405-410.	6.8	172
16	Hydrogen Production from Hydrolytic Oxidation of Organosilanes Using a Cationic Oxorhenium Catalyst. Journal of the American Chemical Society, 2005, 127, 11938-11939.	13.7	165
17	H₂-Driven Deoxygenation of Epoxides and Diols to Alkenes Catalyzed by Methyltrioxorhenium. Inorganic Chemistry, 2009, 48, 9998-10000.	4.0	152
18	Zincâ€Assisted Hydrodeoxygenation of Biomassâ€Derived 5â€Hydroxymethylfurfural to 2,5â€Dimethylfuran. ChemSusChem, 2014, 7, 3095-3101.	6.8	152

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19	Methyltrioxorhenium-catalyzed epoxidations in ionic liquids. Chemical Communications, 2000, , 1165-1166.	4.1	138
20	Aerobic oxidation of 5-hydroxylmethylfurfural with homogeneous and nanoparticulate catalysts. Catalysis Science and Technology, 2012, 2, 79-81.	4.1	136
21	Renewable Epoxy Networks Derived from Lignin-Based Monomers: Effect of Cross-Linking Density. ACS Sustainable Chemistry and Engineering, 2016, 4, 6082-6089.	6.7	133
22	Heteropolyacid catalyzed conversion of fructose, sucrose, and inulin to 5-ethoxymethylfurfural, a liquid biofuel candidate. Applied Energy, 2012, 99, 80-84.	10.1	131
23	Mechanism of Catalytic Aziridination with Manganese Corrole:Â The Often Postulated High-Valent Mn(V) Imido Is Not the Group Transfer Reagent. Journal of the American Chemical Society, 2006, 128, 16971-16979.	13.7	129
24	Lignin depolymerization over Ni/C catalyst in methanol, a continuation: effect of substrate and catalyst loading. Catalysis Science and Technology, 2015, 5, 3242-3245.	4.1	129
25	Deactivation of Methylrhenium Trioxideâ^'Peroxide Catalysts by Diverse and Competing Pathways. Journal of the American Chemical Society, 1996, 118, 4966-4974.	13.7	124
26	Properties of Photogenerated Tryptophan and Tyrosyl Radicals in Structurally Characterized Proteins Containing Rhenium(I) Tricarbonyl Diimines. Journal of the American Chemical Society, 2001, 123, 3181-3182.	13.7	123
27	Multi-electron Activation of Dioxygen on Zirconium(IV) to Give an Unprecedented Bisperoxo Complex. Journal of the American Chemical Society, 2007, 129, 12400-12401.	13.7	121
28	Selective Conversion of Biomass Hemicellulose to Furfural Using Maleic Acid with Microwave Heating. Energy & Fuels, 2012, 26, 1298-1304.	5.1	121
29	Kinetics and Mechanisms of Catalytic Oxygen Atom Transfer with Oxorhenium(V) Oxazoline Complexes. Inorganic Chemistry, 2001, 40, 2185-2192.	4.0	119
30	Mechanistic investigation of the Zn/Pd/C catalyzed cleavage and hydrodeoxygenation of lignin. Green Chemistry, 2016, 18, 2399-2405.	9.0	119
31	Synthesis of Renewable Thermoset Polymers through Successive Lignin Modification Using Lignin-Derived Phenols. ACS Sustainable Chemistry and Engineering, 2017, 5, 5059-5066.	6.7	119
32	Rheniumâ€Catalyzed Transfer Hydrogenation and Deoxygenation of Biomassâ€Derived Polyols to Small and Useful Organics. ChemSusChem, 2012, 5, 1401-1404.	6.8	115
33	Biobased Epoxy Nanocomposites Derived from Lignin-Based Monomers. Biomacromolecules, 2015, 16, 2025-2031.	5.4	114
34	Mechanism for Reduction Catalysis by Metal Oxo:â€‰ Hydrosilation of Organic Carbonyl Groups Catalyzed by a Rhenium(V) Oxo Complex. Journal of the American Chemical Society, 2005, 127, 15374-15375.	13.7	113
35	Maleic acid and aluminum chloride catalyzed conversion of glucose to 5-(hydroxymethyl) furfural and levulinic acid in aqueous media. Green Chemistry, 2016, 18, 5219-5229.	9.0	110
36	Oxidations of ER3 (E = P, As, or Sb) by Hydrogen Peroxide: Methylrhenium Trioxide as Catalyst. Journal of the American Chemical Society, 1995, 117, 272-280.	13.7	108

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37	Efficient Solid Acid Catalyst Containing Lewis and BrÃ¸nsted Acid Sites for the Production of Furfurals. ChemSusChem, 2014, 7, 2342-2350.	6.8	106
38	Mechanistic Insight into Hydrosilylation Reactions Catalyzed by High Valent Reâ‹®X (X = O, NAr, or N) Complexes:Â The Silane (SiH) Does Not Add across the Metalâ^'Ligand Multiple Bond. Journal of the American Chemical Society, 2007, 129, 5180-5187.	13.7	103
39	Current Technologies, Economics, and Perspectives for 2,5â€Dimethylfuran Production from Biomassâ€Derived Intermediates. ChemSusChem, 2015, 8, 1133-1142.	6.8	101
40	High-valent iron and manganese complexes of corrole and porphyrin in atom transfer and dioxygen evolving catalysis. Dalton Transactions, 2011, 40, 3435.	3.3	96
41	Lignin extraction and catalytic upgrading from genetically modified poplar. Green Chemistry, 2018, 20, 745-753.	9.0	96
42	A facile strategy to achieve fully bio-based epoxy thermosets from eugenol. Green Chemistry, 2019, 21, 4475-4488.	9.0	95
43	High-Performance Liquid Chromatography/High-Resolution Multiple Stage Tandem Mass Spectrometry Using Negative-Ion-Mode Hydroxide-Doped Electrospray Ionization for the Characterization of Lignin Degradation Products. Analytical Chemistry, 2012, 84, 6000-6007.	6.5	94
44	Multielectron Atom Transfer Reactions of Perchlorate and Other Substrates Catalyzed by Rhenium Oxazoline and Thiazoline Complexes:Â Reaction Kinetics, Mechanisms, and Density Functional Theory Calculations. Inorganic Chemistry, 2004, 43, 4036-4050.	4.0	92
45	Oxygen-Transfer Reactions of Methylrhenium Oxides. Inorganic Chemistry, 1996, 35, 7751-7757.	4.0	89
46	Comparative kinetic investigations in ionic liquids using the MTO/peroxide system. Journal of Molecular Catalysis A, 2002, 187, 215-225.	4.8	88
47	Hydrogen Atom Transfer Reactions of Imido Manganese(V) Corrole:â€‰ One Reaction with Two Mechanistic Pathways. Journal of the American Chemical Society, 2007, 129, 11505-11511.	13.7	85
48	Isolation and characterization of cellulose and Î±-cellulose from date palm biomass waste. Heliyon, 2019, 5, e02937.	3.2	84
49	Renewable Thermoplastics Based on Lignin-Derived Polyphenols. Macromolecules, 2017, 50, 3573-3581.	4.8	82
50	Catechol-Mediated Glycidylation toward Epoxy Vitrimers/Polymers with Tunable Properties. Macromolecules, 2019, 52, 3646-3654.	4.8	82
51	High-Valent Imido Complexes of Manganese and Chromium Corroles. Inorganic Chemistry, 2005, 44, 3700-3708.	4.0	81
52	Mechanism of and exquisite selectivity for Oâ€"O bond formation by the heme-dependent chlorite dismutase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15654-15659.	7.1	80
53	Solvent-Free Methods for Making Acetals Derived from Glycerol and Furfural and Their Use as a Biodiesel Fuel Component. ACS Catalysis, 2012, 2, 2524-2530.	11.2	80
54	Catalytic Upgrading of 5â€Hydroxymethylfurfural to Dropâ€in Biofuels by Solid Base and Bifunctional Metalâ€"Acid Catalysts. ChemSusChem, 2015, 8, 4022-4029.	6.8	79

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55	Renewable Epoxy Thermosets from Fully Lignin-Derived Triphenols. ACS Sustainable Chemistry and Engineering, 2018, 6, 7600-7608.	6.7	79
56	Hydroxyl Radical is the Active Species in Photochemical DNA Strand Scission by Bis(peroxo)vanadium(V) Phenanthroline. Inorganic Chemistry, 2004, 43, 8447-8455.	4.0	78
57	Catalytic Hydrosilylation of Carbonyl Compounds with Cationic Oxorhenium(V) Salen. Organometallics, 2006, 25, 4920-4923.	2.3	76
58	Kinetics and Mechanisms of Methyl Vinyl Ketone Hydroalkoxylation Catalyzed by Palladium(II) Complexes. Organometallics, 2001, 20, 4403-4412.	2.3	74
59	Mechanism of MTO-Catalyzed Deoxydehydration of Diols to Alkenes Using Sacrificial Alcohols. Organometallics, 2013, 32, 3210-3219.	2.3	69
60	Structural Comparison of Bacterial and Human Iron-dependent Phenylalanine Hydroxylases: Similar Fold, Different Stability and Reaction Rates. Journal of Molecular Biology, 2002, 320, 645-661.	4.2	68
61	The effect of hydrochloric acid on the conversion of glucose to 5-hydroxymethylfurfural in AlCl3â€“H2O/THF biphasic medium. Journal of Molecular Catalysis A, 2013, 376, 98-102.	4.8	65
62	Renewable thermoset polymers based on lignin and carbohydrate derived monomers. Green Chemistry, 2018, 20, 1131-1138.	9.0	65
63	Engineering Li/Na selectivity in 12-Crown-4â€“functionalized polymer membranes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	65
64	Titanium hydrogenphosphate: An efficient dual acidic catalyst for 5-hydroxymethylfurfural (HMF) production. Applied Catalysis A: General, 2014, 486, 42-48.	4.3	64
65	From Furfural to Fuel: Synthesis of Furoins by Organocatalysis and their Hydrodeoxygenation by Cascade Catalysis. ChemSusChem, 2014, 7, 2742-2747.	6.8	63
66	Zwitterionic Ring-Opening Polymerization: Models for Kinetics of Cyclic Poly(caprolactone) Synthesis. Macromolecules, 2014, 47, 2955-2963.	4.8	63
67	Molecular Rhenium(V) Oxotransferases:Â Oxidation of Thiols to Disulfides with Sulfoxides. The Case of Substrate-Inhibited Catalysis. Inorganic Chemistry, 1998, 37, 4979-4985.	4.0	59
68	Kinetics of MTO-Catalyzed Olefin Epoxidation in Ambient Temperature Ionic Liquids: UV/Vis and 2H NMR Study MTO= methyltrioxorhenium.. Chemistry - A European Journal, 2002, 8, 3053.	3.3	57
69	Atomic-Level Structure Characterization of Biomass Pre- and Post-Lignin Treatment by Dynamic Nuclear Polarization-Enhanced Solid-State NMR. Journal of Physical Chemistry A, 2017, 121, 623-630.	2.5	57
70	Valence Tautomerization of High-Valent Manganese(V)-Oxo Corrole Induced by Protonation of the Oxo Ligand. Journal of the American Chemical Society, 2015, 137, 14481-14487.	13.7	56
71	Hydrogenolysis of Organosolv Lignin in Ethanol/Isopropanol Media without Added Transition-Metal Catalyst. ACS Sustainable Chemistry and Engineering, 2020, 8, 1023-1030.	6.7	55
72	Facile Abstraction of Successive Oxygen Atoms from Perchlorate Ions by Methylrhenium Dioxide. Inorganic Chemistry, 1995, 34, 6239-6240.	4.0	54

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73	Synthesis of Cationic Oxorhenium Salen Complexes via Î¼-Oxo Abstraction and Their Activity in Catalytic Reductions. Inorganic Chemistry, 2006, 45, 2385-2387.	4.0	54
74	Structureâˆ'Activity Correlation in Titanium Single-Site Olefin Polymerization Catalysts Containing Mixed Cyclopentadienyl/Aryloxide Ligation. Journal of the American Chemical Society, 2007, 129, 3776-3777.	13.7	51
75	Oxidations of Cyclic Î²-Diketones Catalyzed by Methylrhenium Trioxide. Organometallics, 1996, 15, 3543-3549.	2.3	50
76	Oxo and Imido Complexes of Rhenium and Molybdenum in Catalytic Reductions. Current Organic Chemistry, 2008, 12, 1185-1198.	1.6	50
77	High-Valent Chromiumâ€“Oxo Complex Acting as an Efficient Catalyst Precursor for Selective Two-Electron Reduction of Dioxygen by a Ferrocene Derivative. Inorganic Chemistry, 2014, 53, 7780-7788.	4.0	49
78	Diverse Pathways of Activation and Deactivation of Half-Sandwich Aryloxide Titanium Polymerization Catalysts. Organometallics, 2006, 25, 214-220.	2.3	48
79	Dehydrocoupling of Organosilanes with a Dinuclear Nickel Hydride Catalyst and Isolation of a Nickel Silyl Complex. Organometallics, 2010, 29, 6527-6533.	2.3	47
80	Characterization of model compounds of processed lignin and the lignome by using atmospheric pressure ionization tandem mass spectrometry. Fuel, 2012, 95, 634-641.	6.4	47
81	Formaldehyde-Free Method for Incorporating Lignin into Epoxy Thermosets. ACS Sustainable Chemistry and Engineering, 2018, 6, 10628-10636.	6.7	47
82	Mechanistic Detail Revealed via Comprehensive Kinetic Modeling of [<i>rac</i>-C₂H₄(1-indenyl)₂ZrMe₂]-Catalyzed 1-Hexene Polymerization. Journal of the American Chemical Society, 2010, 132, 558-566.	13.7	46
83	Speciation and kinetic study of iron promoted sugar conversion to 5-hydroxymethylfurfural (HMF) and levulinic acid (LA). Organic Chemistry Frontiers, 2015, 2, 1388-1396.	4.5	46
84	Kinetics and Mechanistic Studies of Anticarcinogenic Bisperoxovanadium(V) Compounds:Â Ligand Substitution Reactions at Physiological pH and Relevance to DNA Interactions. Inorganic Chemistry, 2003, 42, 7967-7977.	4.0	44
85	Swift oxo transfer reactions of perchlorate and other substrates catalyzed by rhenium oxazoline and thiazoline complexesElectronic supplementary information (ESI) available: colour versions of Figs. 3 and 4. See http://www.rsc.org/suppdata/cc/b3/b300189j/. Chemical Communications, 2003, , 2102.	4.1	42
86	An Efficient Method for the Preparation of Oxo Molybdenum Salalen Complexes and Their Unusual Use as Hydrosilylation Catalysts. Inorganic Chemistry, 2009, 48, 11290-11296.	4.0	41
87	Synthesis, Characterization, and Reactivity of Palladium(II) Salen and Oxazoline Complexes. Inorganic Chemistry, 1999, 38, 4510-4514.	4.0	38
88	Synthesis of Enantiopure Oxorhenium(V) and Arylimidorhenium(V) â€œ3 + 2â€•Schiff Base Complexes. X-ray Diffraction, Cyclic Voltammetry, UVâˆ'Vis, and Circular Dichroism Characterizations. Inorganic Chemistry, 2001, 40, 6767-6773.	4.0	38
89	Synthesis of Cationic Rhenium(VII) Oxo Imido Complexes and Their Tunability Towards Oxygen Atom Transfer. Journal of the American Chemical Society, 2007, 129, 1167-1178.	13.7	38
90	Concerted Dismutation of Chlorite Ion: Water-Soluble Iron-Porphyrins As First Generation Model Complexes for Chlorite Dismutase. Inorganic Chemistry, 2009, 48, 2260-2268.	4.0	38

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91	Effects of Pendant Ligand Binding Affinity on Chain Transfer for 1-Hexene Polymerization Catalyzed by Single-Site Zirconium Amine Bis-Phenolate Complexes. Journal of the American Chemical Society, 2013, 135, 6280-6288.	13.7	38
92	Order of substrate binding in bacterial phenylalanine hydroxylase and its mechanistic implication for pterin-dependent oxygenases. Journal of Biological Inorganic Chemistry, 2003, 8, 121-128.	2.6	37
93	Overcoming cellulose recalcitrance in woody biomass for the lignin-first biorefinery. Biotechnology for Biofuels, 2019, 12, 171.	6.2	37
94	Fluorescent Probes of the Molecular Environment within Mesostructured Silica/Surfactant Composites under High Pressure. Nano Letters, 2001, 1, 27-31.	9.1	36
95	The reaction of activated esters with epoxides for self-curable, highly flexible, A₂B₂- and A₃B₃-type epoxy compounds. Polymer Chemistry, 2019, 10, 3983-3995.	3.9	35
96	Chemical Upcycling of Polyethylene to Value-Added Î±,Ï‰-Divinyl-Functionalized Oligomers. ACS Sustainable Chemistry and Engineering, 2021, 9, 13926-13936.	6.7	34
97	Bioinspired Dismutation of Chlorite to Dioxygen and Chloride Catalyzed by a Waterâ€Soluble Iron Porphyrin. Angewandte Chemie - International Edition, 2008, 47, 7697-7700.	13.8	33
98	A Solvent-Free Method for Making Dioxolane and Dioxane from the Biorenewables Glycerol and Furfural Catalyzed by Oxorhenium(V) Oxazoline. Inorganic Chemistry, 2010, 49, 4741-4743.	4.0	33
99	Catalytic Two-Electron Reduction of Dioxygen by Ferrocene Derivatives with Manganese(V) Corroles. Inorganic Chemistry, 2015, 54, 4285-4291.	4.0	33
100	One-pot hydrodeoxygenation (HDO) of lignin monomers to C9 hydrocarbons co-catalysed by Ru/C and Nb₂O₅. Green Chemistry, 2020, 22, 7406-7416.	9.0	33
101	Materials Based on Technical Bulk Lignin. ACS Sustainable Chemistry and Engineering, 2021, 9, 1477-1493.	6.7	32
102	Carbon Dioxide Reduction to Silyl-Protected Methanol Catalyzed by an Oxorhenium Pincer PNN Complex. Organometallics, 2017, 36, 1688-1691.	2.3	30
103	On the Mechanism of the Reaction of Organic Azides with Transition Metals: Evidence for Triplet Nitrene Capture. Angewandte Chemie - International Edition, 2005, 44, 6203-6207.	13.8	29
104	Cationic oxorhenium chiral salen complexes for asymmetric hydrosilylation and kinetic resolution of alcohols. Inorganica Chimica Acta, 2008, 361, 3184-3192.	2.4	28
105	Manganese(III) Corrole-Oxidant Adduct as the Active Intermediate in Catalytic Hydrogen Atom Transfer. Inorganic Chemistry, 2008, 47, 10718-10722.	4.0	26
106	Chlorite Dismutation to Chlorine Dioxide Catalyzed by a Waterâ€Soluble Manganese Porphyrin. Angewandte Chemie - International Edition, 2011, 50, 699-702.	13.8	26
107	Non-Heme Manganese Catalysts for On-Demand Production of Chlorine Dioxide in Water and Under Mild Conditions. Journal of the American Chemical Society, 2014, 136, 3680-3686.	13.7	26
108	Configuration Control in the Synthesis of Homo- and Heteroleptic Bis(oxazolinylphenolato/thiazolinylphenolato) Chelate Ligand Complexes of Oxorhenium(V): Isomer Effect on Ancillary Ligand Exchange Dynamics and Implications for Perchlorate Reduction Catalysis. Inorganic Chemistry, 2016, 55, 2597-2611.	4.0	26

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109	Deoxydehydration of Biomass-Derived Polyols with a Reusable Unsupported Rhenium Nanoparticles Catalyst. ACS Sustainable Chemistry and Engineering, 2019, 7, 11438-11447.	6.7	26
110	Quantitative Effects of Ion Pairing and Sterics on Chain Propagation Kinetics for 1-Hexene Polymerization Catalyzed by Mixed Cpâ€²/ArO Complexes. Organometallics, 2008, 27, 5504-5520.	2.3	25
111	New vanadium oxazoline catalysts for epoxidation of allylic alcohols. Tetrahedron Letters, 1999, 40, 8313-8316.	1.4	24
112	Advanced Paramagnetic Resonance Studies on Manganese and Iron Corroles with a Formal d⁴ Electron Count. Inorganic Chemistry, 2020, 59, 1075-1090.	4.0	24
113	Mechanistic Insights into Chromium-Catalyzed Ethylene Trimerization. ACS Catalysis, 2018, 8, 6810-6819.	11.2	23
114	Synthesis and Characterization of Cu₃(Sb_{1â€"<i>x</i>}As_{<i>x</i>})S₄ Semiconducting Nanocrystal Alloys with Tunable Properties for Optoelectronic Device Applications. Chemistry of Materials, 2017, 29, 573-578.	6.7	22
115	Carbonâ€"Oxygen Bond Forming Reductive Elimination from Cycloplatinated(IV) Complexes. Organometallics, 2018, 37, 87-98.	2.3	22
116	Synthesis and Characterization of Copper Arsenic Sulfide Nanocrystals from Earth Abundant Elements for Solar Energy Conversion. Chemistry of Materials, 2015, 27, 2290-2293.	6.7	21
117	Degradation of Thermal-Mechanically Stable Epoxy Thermosets, Recycling of Carbon Fiber, and Reapplication of the Degraded Products. ACS Sustainable Chemistry and Engineering, 2021, 9, 5304-5314.	6.7	21
118	Excited-State Distortions Determined from Structured Luminescence of Nitridorhenium(V) Complexes. Inorganic Chemistry, 2002, 41, 1755-1760.	4.0	20
119	Structureâ€"Activity Correlation for Relative Chain Initiation to Propagation Rates in Single-Site Olefin Polymerization Catalysis. Organometallics, 2012, 31, 602-618.	2.3	20
120	Kinetic Modeling of 1-Hexene Polymerization Catalyzed by Zr(<i>t</i>Bu-ON^{NMe₂}O)Bn₂/B(C₆F₅)₃. Macromolecules, 2012, 45, 4978-4988.	4.8	20
121	A Heterogeneous Pt-ReO_{<i>x</i>}/C Catalyst for Making Renewable Adipates in One Step from Sugar Acids. ACS Catalysis, 2021, 11, 95-109.	11.2	20
122	EPR and UVâˆ'Vis Studies of the Nitric Oxide Adducts of Bacterial Phenylalanine Hydroxylase:Â Effects of Cofactor and Substrate on the Iron Environment. Inorganic Chemistry, 2006, 45, 4277-4283.	4.0	19
123	Computational Investigation of the Concerted Dismutation of Chlorite Ion by Water-Soluble Iron Porphyrins. Inorganic Chemistry, 2011, 50, 7928-7930.	4.0	19
124	Recycling Waste Polycarbonate to Bisphenol A-Based Oligoesters as Epoxy-Curing Agents, and Degrading Epoxy Thermosets and Carbon Fiber Composites into Useful Chemicals. ACS Sustainable Chemistry and Engineering, 2022, 10, 2429-2440.	6.7	19
125	Posttranslational Hydroxylation of Human Phenylalanine Hydroxylase Is a Novel Example of Enzyme Self-Repair within the Second Coordination Sphere of Catalytic Iron. Journal of the American Chemical Society, 2003, 125, 4710-4711.	13.7	18
126	The mechanism of mediated oxidation of carboxylates with ferrocene as redox catalyst in absence of grafting effects. An experimental and theoretical approach. Electrochimica Acta, 2014, 136, 542-549.	5.2	18

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127	Quantitative Comparative Kinetics of 1-Hexene Polymerization across Group IV Bis-Phenolate Catalysts. ACS Catalysis, 2016, 6, 5138-5145.	11.2	18
128	Effect of temperature, pH, and metals on the stability and activity of phenylalanine hydroxylase from Chromobacterium violaceum. Journal of Inorganic Biochemistry, 2005, 99, 771-775.	3.5	17
129	Solution-based synthesis and characterization of earth abundant Cu₃(As,Sb)Se₄ nanocrystal alloys: towards scalable room-temperature thermoelectric devices. Journal of Materials Chemistry A, 2016, 4, 2198-2204.	10.3	17
130	Observation of Inductive Effects That Cause a Change in the Rate-Determining Step for the Conversion of Rhenium Azides to Imido Complexes. Inorganic Chemistry, 2011, 50, 10505-10514.	4.0	16
131	Effective and Catalytic Reduction of Perchlorate by Atom Transferâ€"Reaction Kinetics and Mechanisms. Comments on Inorganic Chemistry, 2003, 24, 15-37.	5.2	15
132	Mild, Selective Sulfoxidation with Molybdenum(VI) <i>cis</i>-Dioxo Catalysts. ACS Omega, 2017, 2, 1778-1785.	3.5	15
133	Synthesis and Properties of Quinoxaline-Containing Benzoxazines and Polybenzoxazines. ACS Omega, 2019, 4, 9092-9101.	3.5	15
134	Organosolv Fractionation of Walnut Shell Biomass to Isolate Lignocellulosic Components for Chemical Upgrading of Lignin to Aromatics. ACS Omega, 2021, 6, 8142-8150.	3.5	15
135	Comparison of Selected Zirconium and Hafnium Amine Bis(phenolate) Catalysts for 1-Hexene Polymerization. Organometallics, 2013, 32, 4862-4867.	2.3	14
136	Synthesis and Electrochemical Reactivity of Molybdenum Dicarbonyl Supported by a Redox-Active Î±-Diimine Ligand. Inorganic Chemistry, 2013, 52, 5457-5463.	4.0	14
137	Selective Degenerative Benzyl Group Transfer in Olefin Polymerization. ACS Catalysis, 2014, 4, 1162-1170.	11.2	14
138	In-situ cleaning of heavy metal contaminated plastic water pipes using a biomass derived ligand. Journal of Environmental Chemical Engineering, 2017, 5, 3622-3631.	6.7	14
139	Mechanistic Insights into Concerted Câ€"C Reductive Elimination from Homoleptic Uranium Alkyls. Organometallics, 2017, 36, 3491-3497.	2.3	13
140	Full atom-efficiency transformation of wasted polycarbonates into epoxy thermosets and the catalyst-free degradation of the thermosets for environmental sustainability. Green Chemistry, 2020, 22, 4683-4696.	9.0	13
141	Origins of Lithium/Sodium Reverse Permeability Selectivity in 12-Crown-4-Functionalized Polymer Membranes. ACS Macro Letters, 2021, 10, 1167-1173.	4.8	13
142	Effects of Electronic Perturbations on 1-Hexene Polymerization Catalyzed by Zirconium Amine Bisphenolate Complexes. ACS Catalysis, 2014, 4, 2186-2190.	11.2	12
143	Identification of the Phenol Functionality in Deprotonated Monomeric and Dimeric Lignin Degradation Products via Tandem Mass Spectrometry Based on Ionâ€"Molecule Reactions with Diethylmethoxyborane. Journal of the American Society for Mass Spectrometry, 2016, 27, 1813-1823.	2.8	12
144	Initial Products and Reaction Mechanisms for Fast Pyrolysis of Synthetic Gâ€Lignin Oligomers with Î²â€Oâ€4 Linkages via Onâ€Line Mass Spectrometry and Quantum Chemical Calculations. ChemistrySelect, 2017, 2, 7185-7193.	1.5	12

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