

Joseph Wood

List of Publications by Year in descending order

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121
papers

4,746
citations

76326

40
h-index

114465

63
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125
all docs

125
docs citations

125
times ranked

4930
citing authors

#	ARTICLE	IF	CITATIONS
1	Methanolysis of Poly(lactic Acid) Using Catalyst Mixtures and the Kinetics of Methyl Lactate Production. <i>Polymers</i> , 2022, 14, 1763.	4.5	3
2	Mild-Temperature hydrodeoxygenation of vanillin a typical bio-oil model compound to Creosol a potential future biofuel. <i>Catalysis Today</i> , 2021, 379, 70-79.	4.4	18
3	3D printed re-entrant cavity resonator for complex permittivity measurement of crude oils. <i>Sensors and Actuators A: Physical</i> , 2021, 317, 112477.	4.1	8
4	In-situ microwave-assisted catalytic upgrading of heavy oil: Experimental validation and effect of catalyst pore structure on activity. <i>Chemical Engineering Journal</i> , 2021, 413, 127420.	12.7	21
5	Synergistic Dual Catalytic System and Kinetics for the Alcoholysis of Poly(Lactic Acid). <i>Processes</i> , 2021, 9, 921.	2.8	7
6	Comparative Study on the Hydrogenation of Naphthalene over Both Al ₂ O ₃ -Supported Pd and NiMo Catalysts against a Novel LDH-Derived Ni-MMO-Supported Mo Catalyst. <i>ACS Omega</i> , 2021, 6, 20053-20067.	3.5	9
7	Inductive Heating Assisted-Catalytic Dehydrogenation of Tetralin as a Hydrogen Source for Downhole Catalytic Upgrading of Heavy Oil. <i>Topics in Catalysis</i> , 2020, 63, 268-280.	2.8	10
8	Kinetics of Alkyl Lactate Formation from the Alcoholysis of Poly(Lactic Acid). <i>Processes</i> , 2020, 8, 738.	2.8	13
9	Maximizing paraffin to olefin ratio employing simulated nitrogen-rich syngas via Fischer-Tropsch process over Co ₃ O ₄ /SiO ₂ catalysts. <i>Fuel Processing Technology</i> , 2020, 208, 106477.	7.2	15
10	Ethyl Lactate Production from the Catalytic Depolymerisation of Post-consumer Poly(lactic acid). <i>Journal of Polymers and the Environment</i> , 2020, 28, 2956-2964.	5.0	14
11	Chemical Degradation of End-of-Life Poly(lactic acid) into Methyl Lactate by a Zn(II) Complex. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 11149-11156.	3.7	43
12	Organocatalysis for versatile polymer degradation. <i>Green Chemistry</i> , 2020, 22, 3721-3726.	9.0	67
13	A parametric study of process design and cycle configurations for pre-combustion PSA applied to NGCC power plants. <i>Chemical Engineering Research and Design</i> , 2020, 160, 141-153.	5.6	5
14	Hydrogenation and Dehydrogenation of Tetralin and Naphthalene to Explore Heavy Oil Upgrading Using NiMo/Al ₂ O ₃ and CoMo/Al ₂ O ₃ Catalysts Heated with Steel Balls via Induction. <i>Catalysts</i> , 2020, 10, 497.	3.5	15
15	Kinetics of Methyl Lactate Formation from the Transesterification of Polylactic Acid Catalyzed by Zn(II) Complexes. <i>ACS Omega</i> , 2020, 5, 5556-5564.	3.5	23
16	Recycling of Bioplastics: Routes and Benefits. <i>Journal of Polymers and the Environment</i> , 2020, 28, 2551-2571.	5.0	180
17	Tetralin and Decalin H-Donor Effect on Catalytic Upgrading of Heavy Oil Inductively Heated with Steel Balls. <i>Catalysts</i> , 2020, 10, 393.	3.5	18
18	Kinetics of Vanillin Hydrodeoxygenation Reaction in an Organic Solvent Using a Pd/C Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 15162-15172.	3.7	16

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19	Reaction Kinetics of Vanillin Hydrodeoxygenation in Acidic and Nonacidic Environments Using Bimetallic PdRh/Al ₂ O ₃ Catalyst. Energy & Fuels, 2019, 33, 11712-11723.	5.1	7
20	Zinc Complexes for PLA Formation and Chemical Recycling: Towards a Circular Economy. ChemSusChem, 2019, 12, 5233-5238.	6.8	53
21	Modelling and parameter estimation of breakthrough curves for amine-modified activated carbons under pre-combustion carbon capture conditions. Fuel, 2019, 253, 1130-1139.	6.4	14
22	Kinetics of Hydrogenation of Acetic Acid over Supported Platinum Catalyst. Energy & Fuels, 2019, 33, 5551-5560.	5.1	9
23	Catalytic Hydrogenation of Short Chain Carboxylic Acids Typical of Model Compound Found in Bio-Oils. Industrial & Engineering Chemistry Research, 2019, 58, 7998-8008.	3.7	12
24	A Mechanistic Study of Layered-Double Hydroxide (LDH)-Derived Nickel-Enriched Mixed Oxide (Ni-MMO) in Ultradispersed Catalytic Pyrolysis of Heavy Oil and Related Petroleum Coke Formation. Energy & Fuels, 2019, 33, 10820-10832.	5.1	12
25	Poly(lactic acid) Degradation into Methyl Lactate Catalyzed by a Well-Defined Zn(II) Complex. ACS Catalysis, 2019, 9, 409-416.	11.2	99
26	Impact of Oil Composition on Microwave Heating Behavior of Heavy Oils. Energy & Fuels, 2018, 32, 1592-1599.	5.1	21
27	Biorefining of platinum group metals from model waste solutions into catalytically active bimetallic nanoparticles. Microbial Biotechnology, 2018, 11, 359-368.	4.2	12
28	Catalytic performance of Ni-Cu/Al ₂ O ₃ for effective syngas production by methanol steam reforming. Fuel, 2018, 232, 672-683.	6.4	85
29	Microwave synthesis of carbon onions in fractal aggregates using heavy oil as a precursor. Carbon, 2018, 138, 427-435.	10.3	13
30	In Situ Catalytic Upgrading of Heavy Crude with CAPRI: Influence of Hydrogen on Catalyst Pore Plugging and Deactivation due to Coke. Energies, 2018, 11, 636.	3.1	26
31	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. Fuel, 2017, 209, 449-456.	6.4	31
32	Metallic bionanocatalysts: potential applications as green catalysts and energy materials. Microbial Biotechnology, 2017, 10, 1171-1180.	4.2	20
33	A novel biorefinery: Biorecovery of precious metals from spent automotive catalyst leachates into new catalysts effective in metal reduction and in the hydrogenation of 2-pentyne. Minerals Engineering, 2017, 113, 102-108.	4.3	24
34	In situ catalytic upgrading of heavy oil using a pelletized Ni-Mo/Al ₂ O ₃ catalyst in the THAI process. Journal of Petroleum Science and Engineering, 2017, 156, 958-965.	4.2	26
35	Laboratory investigation of CAPRI catalytic THAI-add-on process for heavy oil production and in situ upgrading. Journal of Analytical and Applied Pyrolysis, 2017, 128, 18-26.	5.5	17
36	In-situ catalytic upgrading of heavy oil using dispersed bionanoparticles supported on gram-positive and gram-negative bacteria. Applied Catalysis B: Environmental, 2017, 203, 807-819.	20.2	54

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37	Three-phase catalytic reactors for hydrogenation and oxidation reactions. ChemistrySelect, 2016, 1, .	1.5	1
38	Selective hydrogenation using palladium bioinorganic catalyst. Applied Catalysis B: Environmental, 2016, 199, 108-122.	20.2	36
39	Comparison of the effects of dispersed noble metal (Pd) biomass supported catalysts with typical hydrogenation (Pd/C, Pd/Al ₂ O ₃) and hydrotreatment catalysts (CoMo/Al ₂ O ₃) for in-situ heavy oil upgrading with Toe-to-Heel Air Injection (THAI). Fuel, 2016, 180, 367-376.	6.4	24
40	Upgrading of heavy oil by dispersed biogenic magnetite catalysts. Fuel, 2016, 185, 442-448.	6.4	35
41	Fructose dehydration to 5HMF in a green self-catalysed DES composed of N,N-diethylethanolammonium chloride and p-toluenesulfonic acid monohydrate (p-TSA). Comptes Rendus Chimie, 2016, 19, 450-456.	0.5	13
42	6. Three-phase catalytic reactors for hydrogenation and oxidation reactions. , 2015, , 220-282.		0
43	Accelerated degradation of Polyetheretherketone (PEEK) composite materials for recycling applications. Polymer Degradation and Stability, 2015, 112, 52-62.	5.8	54
44	Counting carbon fibres by electrical resistance measurement. Composites Part A: Applied Science and Manufacturing, 2015, 68, 276-281.	7.6	5
45	Characterization of pore coking in catalyst for thermal down-hole upgrading of heavy oil. Chemical Engineering Science, 2015, 131, 138-145.	3.8	10
46	Effect of cyclohexane as hydrogen-donor in ultradispersed catalytic upgrading of heavy oil. Fuel Processing Technology, 2015, 138, 724-733.	7.2	50
47	Carbon Dioxide Separation from Nitrogen/Hydrogen Mixtures over Activated Carbon Beads: Adsorption Isotherms and Breakthrough Studies. Energy & Fuels, 2015, 29, 3796-3807.	5.1	27
48	Characterization of intracellular palladium nanoparticles synthesized by Desulfovibrio desulfuricans and Bacillus benzeovorans. Journal of Nanoparticle Research, 2015, 17, 264.	1.9	61
49	A comparative study of fixed-bed and dispersed catalytic upgrading of heavy crude oil using-CAPRI. Chemical Engineering Journal, 2015, 282, 213-223.	12.7	63
50	Effectiveness of Different Transition Metal Dispersed Catalysts for In Situ Heavy Oil Upgrading. Industrial & Engineering Chemistry Research, 2015, 54, 10645-10655.	3.7	73
51	Optimization of Heavy Oil Upgrading Using Dispersed Nanoparticulate Iron Oxide as a Catalyst. Energy & Fuels, 2015, 29, 6306-6316.	5.1	59
52	Dehydration of methanol to light olefins upon zeolite/alumina catalysts: Effect of reaction conditions, catalyst support and zeolite modification. Chemical Engineering Research and Design, 2015, 93, 541-553.	5.6	45
53	Catalytic activity of biomass-supported Pd nanoparticles: Influence of the biological component in catalytic efficacy and potential application in "green"™ synthesis of fine chemicals and pharmaceuticals. Applied Catalysis B: Environmental, 2014, 147, 651-665.	20.2	86
54	Downhole Heavy Crude Oil Upgrading Using CAPRI: Effect of Steam upon Upgrading and Coke Formation. Energy & Fuels, 2014, 28, 1811-1819.	5.1	37

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55	A facile acidic choline chloride-p-TSA DES-catalysed dehydration of fructose to 5-hydroxymethylfurfural. RSC Advances, 2014, 4, 39359-39364.	3.6	58
56	Steam gasification of rapeseed, wood, sewage sludge and miscanthus biochars for the production of a hydrogen-rich syngas. Biomass and Bioenergy, 2014, 69, 276-286.	5.7	94
57	Tri-reforming of methane over Ni@SiO ₂ catalyst. International Journal of Hydrogen Energy, 2014, 39, 12578-12585.	7.1	118
58	Down-hole heavy crude oil upgrading by CAPRI: Effect of hydrogen and methane gases upon upgrading and coke formation. Fuel, 2014, 119, 226-235.	6.4	79
59	Optimization of Coke Resistant Catalyst for Thermal Down-hole Upgrading. , 2014, , .		0
60	Semi-hydrogenation of alkynes at single crystal, nanoparticle and biogenic nanoparticle surfaces: the role of defects in Lindlar-type catalysts and the origin of their selectivity. Faraday Discussions, 2013, 162, 57.	3.2	42
61	Characterization and activity test of commercial Ni/Al ₂ O ₃ , Cu/ZnO/Al ₂ O ₃ and prepared Ni-Cu/Al ₂ O ₃ catalysts for hydrogen production from methane and methanol fuels. International Journal of Hydrogen Energy, 2013, 38, 1664-1675.	7.1	79
62	Nickel-silica core-shell catalyst for methane reforming. International Journal of Hydrogen Energy, 2013, 38, 14531-14541.	7.1	89
63	Photocatalytic performance of Li ^x Ag _x VMoO ₆ (0 ≤ x ≤ 1/2) compounds. Chemical Engineering Journal, 2013, 234, 327-337.	12.7	8
64	Preparation and CO ₂ adsorption of diamine modified montmorillonite via exfoliation grafting route. Chemical Engineering Journal, 2013, 215-216, 699-708.	12.7	74
65	Investigation of the problems with using gas adsorption to probe catalyst pore structure evolution during coking. Journal of Colloid and Interface Science, 2013, 393, 234-240.	9.4	4
66	Optimization of the CAPRI Process for Heavy Oil Upgrading: Effect of Hydrogen and Guard Bed. Industrial & Engineering Chemistry Research, 2013, 52, 15394-15406.	3.7	63
67	Microbial synthesis of core/shell gold/palladium nanoparticles for applications in green chemistry. Journal of the Royal Society Interface, 2012, 9, 1705-1712.	3.4	95
68	Effect of supercritical conditions upon catalyst deactivation in the hydrogenation of naphthalene. Chemical Engineering Journal, 2012, 207-208, 133-141.	12.7	9
69	Improving Selectivity in 2-Butyne-1,4-diol Hydrogenation using Biogenic Pt Catalysts. ACS Catalysis, 2012, 2, 504-511.	11.2	48
70	Characterization of Ni-Cu-based catalysts for multi-fuel steam reformer. International Journal of Low-Carbon Technologies, 2012, 7, 55-59.	2.6	10
71	Materials challenges for the development of solid sorbents for post-combustion carbon capture. Journal of Materials Chemistry, 2012, 22, 2815-2823.	6.7	255
72	Modified zeolite catalyst for selective dialkylation of naphthalene. Chemical Engineering Journal, 2012, 207-208, 329-341.	12.7	13

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73	Selective Hydrogenation of 1-Heptyne in a Mini Trickle Bed Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 8815-8825.	3.7	17
74	Use of <i>Desulfovibrio</i> and <i>Escherichia coli</i> Pd-nanocatalysts in reduction of Cr(VI) and hydrogenolytic dehalogenation of polychlorinated biphenyls and used transformer oil. <i>Journal of Chemical Technology and Biotechnology</i> , 2012, 87, 1430-1435.	3.2	24
75	Preparation and CO ₂ adsorption of amine modified layered double hydroxide via anionic surfactant-mediated route. <i>Chemical Engineering Journal</i> , 2012, 181-182, 267-275.	12.7	20
76	Preparation and CO ₂ adsorption of amine modified Mg-Al LDH via exfoliation route. <i>Chemical Engineering Science</i> , 2012, 68, 424-431.	3.8	76
77	Determination of the location of coke in catalysts by a novel NMR-based, liquid-porosimetry approach. <i>Journal of Colloid and Interface Science</i> , 2012, 381, 164-170.	9.4	1
78	Deactivation during 1-Hexene Isomerization over Zeolite Y and ZSM5 Catalysts under Supercritical Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 7161-7171.	3.7	8
79	Experimental Optimization of Catalytic Process In Situ for Heavy-Oil and Bitumen Upgrading. <i>Journal of Canadian Petroleum Technology</i> , 2011, 50, 33-47.	2.3	54
80	Determination of the Spatial Location of Coke in Catalysts by a Novel NMR Approach. , 2011, , .		0
81	Selective Oxidation of Benzyl-Alcohol over Biomass-Supported Au/Pd Bioinorganic Catalysts. <i>Topics in Catalysis</i> , 2011, 54, 1110-1114.	2.8	27
82	Improving the interpretation of mercury porosimetry data using computerised X-ray tomography and mean-field DFT. <i>Chemical Engineering Science</i> , 2011, 66, 2328-2339.	3.8	22
83	Adsorption of carbon dioxide on hydrotalcite-like compounds of different compositions. <i>Chemical Engineering Research and Design</i> , 2011, 89, 1711-1721.	5.6	76
84	Enantioselective hydrogenation of dimethyl itaconate with immobilised rhodium-duphos complex in a recirculating fixed-bed reactor. <i>Applied Catalysis A: General</i> , 2011, 396, 148-158.	4.3	10
85	Determination of the Spatial Location of Coke in Catalysts by a Novel NMR Approach. <i>AIP Conference Proceedings</i> , 2011, , .	0.4	0
86	Experimental Optimization of Catalytic Process In-Situ for Heavy Oil and Bitumen Upgrading. , 2010, , .		9
87	Palladium supported on bacterial biomass as a novel heterogeneous catalyst: A comparison of Pd/Al ₂ O ₃ and bio-Pd in the hydrogenation of 2-pentyne. <i>Chemical Engineering Science</i> , 2010, 65, 282-290.	3.8	46
88	Heterogeneous oxidation of 2-octanol on 5wt%Pt-1wt%Bi/Carbon catalyst. <i>Chemical Engineering Science</i> , 2010, 65, 179-185.	3.8	10
89	Modelling of pore structure evolution during catalyst deactivation and comparison with experiment. <i>Chemical Engineering Science</i> , 2010, 65, 5550-5558.	3.8	4
90	Hydrogenation of 2-Butyne-1,4-diol Using Novel Bio-Palladium Catalysts. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 980-988.	3.7	44

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91	Microbial Engineering of Nanoheterostructures: Biological Synthesis of a Magnetically Recoverable Palladium Nanocatalyst. ACS Nano, 2010, 4, 2577-2584.	14.6	98
92	A review of novel techniques for heavy oil and bitumen extraction and upgrading. Energy and Environmental Science, 2010, 3, 700.	30.8	431
93	Prolonging catalyst lifetime in supercritical isomerization of 1-hexene over a platinum/alumina catalyst. Chemical Engineering Science, 2009, 64, 3427-3436.	3.8	8
94	Hydrogenation of 2-pentyne over Pd/Al ₂ O ₃ catalysts: Effect of operating variables and solvent selection. Applied Catalysis A: General, 2009, 364, 57-64.	4.3	13
95	Coke Formation and Characterization During 1-Hexene Isomerization and Oligomerization over H-ZSM-5 Catalyst under Supercritical Conditions. Industrial & Engineering Chemistry Research, 2009, 48, 7899-7909.	3.7	18
96	Experimental and modelling studies of the kinetics of mercury retraction from highly confined geometries during porosimetry in the transport and the quasi-equilibrium regimes. Chemical Engineering Science, 2008, 63, 5771-5788.	3.8	7
97	PEPT and discrete particle simulation study of spoutâ€fluid bed regimes. AIChE Journal, 2008, 54, 1189-1202.	3.6	74
98	A biogenic catalyst for hydrogenation, reduction and selective dehalogenation in non-aqueous solvents. Hydrometallurgy, 2008, 94, 138-143.	4.3	24
99	A Novel Hydrogenation and Hydrogenolysis Catalyst Using Palladized Biomass of Gram-negative and Gram-positive Bacteria. Advanced Materials Research, 2007, 20-21, 603-606.	0.3	1
100	Efficiency of reed beds in treating dairy wastewater. Biosystems Engineering, 2007, 98, 455-469.	4.3	28
101	Novel supported Pd hydrogenation bionanocatalyst for hybrid homogeneous/heterogeneous catalysis. Catalysis Today, 2007, 128, 80-87.	4.4	109
102	Diffuse reflectance infrared Fourier transform spectroscopy (DRIFTS) study of ethyne hydrogenation on Pd/Al ₂ O ₃ . Catalysis Today, 2007, 128, 52-62.	4.4	36
103	Selective hydrogenation reactions: A comparative study of monolith CDC, stirred tank and trickle bed reactors. Catalysis Today, 2007, 128, 108-114.	4.4	41
104	Kinetic and selectivity studies of gasâ€liquid reaction under Taylor flow in a circular capillary. Catalysis Today, 2007, 128, 36-46.	4.4	39
105	Simultaneous measurement of in situ bubble size and reaction rates with a heterogeneous catalytic hydrogenation reaction. Chemical Engineering Science, 2007, 62, 5392-5396.	3.8	19
106	Influence of orientation upon the hydrodynamics of gasâ€liquid flow for square channels in monolith supports. Chemical Engineering Science, 2007, 62, 4365-4378.	3.8	40
107	Scaling-out selective hydrogenation reactions: From single capillary reactor to monolith. Fuel, 2007, 86, 1304-1312.	6.4	18
108	Photocatalytic oxidation of 2,4,6-trichlorophenol in water using a cocurrent downflow contactor reactor (CDCR). Journal of Hazardous Materials, 2007, 144, 627-633.	12.4	47

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109	Optimisation of degradation conditions of 1,8-diazabicyclo[5.4.0]undec-7-ene in water and reaction kinetics analysis using a cocurrent downflow contactor photocatalytic reactor. Applied Catalysis B: Environmental, 2007, 73, 259-268.	20.2	56
110	Three-phase photocatalysis using suspended titania and titania supported on a reticulated foam monolith for water purification. Catalysis Today, 2007, 128, 100-107.	4.4	65
111	Two phase gas-liquid reaction studies in a circular capillary. Chemical Engineering Science, 2007, 62, 5397-5401.	3.8	19
112	Studies of the entrapment of non-wetting fluid within nanoporous media using a synergistic combination of MRI and micro-computed X-ray tomography. Chemical Engineering Science, 2006, 61, 7579-7592.	3.8	14
113	Minimisation and recycling of spent acid wastes from galvanizing plants. Resources, Conservation and Recycling, 2005, 44, 153-166.	10.8	49
114	A comparative study of residence time distribution and selectivity in a monolith CDC reactor and a trickle bed reactor. Catalysis Today, 2005, 105, 455-463.	4.4	14
115	Effect of Fines and Porous Catalyst on Hydrodynamics of Trickle Bed Reactors. Industrial & Engineering Chemistry Research, 2005, 44, 9497-9501.	3.7	24
116	Analysis of the performance of single capillary and multiple capillary (monolith) reactors for the multiphase Pd-catalyzed hydrogenation of 2-Butyne-1,4-Diol. Chemical Engineering Science, 2004, 59, 5431-5438.	3.8	24
117	Effect of coke deposition upon pore structure and self-diffusion in deactivated industrial hydroprocessing catalysts. Applied Catalysis A: General, 2003, 249, 241-253.	4.3	42
118	Monitoring of Itaconic Acid Hydrogenation in a Trickle Bed Reactor Using Fiber-Optic Coupled Near-Infrared Spectroscopy. Applied Spectroscopy, 2003, 57, 293-298.	2.2	10
119	Modelling diffusion and reaction accompanied by capillary condensation using three-dimensional pore networks. Part 1. Fickian diffusion and pseudo-first-order reaction kinetics. Chemical Engineering Science, 2002, 57, 3033-3045.	3.8	36
120	Modelling diffusion and reaction accompanied by capillary condensation using three-dimensional pore networks. Part 2. Dusty gas model and general reaction kinetics. Chemical Engineering Science, 2002, 57, 3047-3059.	3.8	47
121	Biomaterialised Palladium is an Effective Hydrogenation Catalyst. Advanced Materials Research, 0, 71-73, 725-728.	0.3	2