Joseph Wood

List of Publications by Year
in descending order

121 papers	4,746 citations	76326 40 h-index	114465 63 g-index
125 all docs	125 docs citations	125 times ranked	4930 citing authors

#	Article	IF	Citations
1	A review of novel techniques for heavy oil and bitumen extraction and upgrading. Energy and Environmental Science, 2010, 3, 700.	30.8	431
2	Materials challenges for the development of solid sorbents for post-combustion carbon capture. Journal of Materials Chemistry, 2012, 22, 2815-2823.	6.7	255
3	Recycling of Bioplastics: Routes and Benefits. Journal of Polymers and the Environment, 2020, 28, 2551-2571.	5.0	180
4	Tri-reforming of methane over Ni@SiO 2 catalyst. International Journal of Hydrogen Energy, 2014, 39, 12578-12585.	7.1	118
5	Novel supported Pd hydrogenation bionanocatalyst for hybrid homogeneous/heterogeneous catalysis. Catalysis Today, 2007, 128, 80-87.	4.4	109
6	Poly(lactic acid) Degradation into Methyl Lactate Catalyzed by a Well-Defined Zn(II) Complex. ACS Catalysis, 2019, 9, 409-416.	11.2	99
7	Microbial Engineering of Nanoheterostructures: Biological Synthesis of a Magnetically Recoverable Palladium Nanocatalyst. ACS Nano, 2010, 4, 2577-2584.	14.6	98
8	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
9	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
10	Nickelâ€"silica core@shell catalyst for methane reforming. International Journal of Hydrogen Energy, 2013, 38, 14531-14541.	7.1	89
11	Catalytic activity of biomass-supported Pd nanoparticles: Influence of the biological component in catalytic efficacy and potential application in â€˜greenâ€™ synthesis of fine chemicals and pharmaceuticals. Applied Catalysis B: Environmental, 2014, 147, 651-665.	20.2	86
12	Catalytic performance of Ni-Cu/Al2O3 for effective syngas production by methanol steam reforming. Fuel, 2018, 232, 672-683.	6.4	85
13	Characterization and activity test of commercial Ni/Al2O3, Cu/ZnO/Al2O3 and prepared Niâ€"Cu/Al2O3 catalysts for hydrogen production from methane and methanol fuels. International Journal of Hydrogen Energy, 2013, 38, 1664-1675.	7.1	79
14	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
15	Adsorption of carbon dioxide on hydrotalcite-like compounds of different compositions. Chemical Engineering Research and Design, 2011, 89, 1711-1721.	5.6	76
16	Preparation and CO2 adsorption of amine modified Mgâ€"Al LDH via exfoliation route. Chemical Engineering Science, 2012, 68, 424-431.	3.8	76
17	PEPT and discrete particle simulation study of spoutâ€fluid bed regimes. AIChE Journal, 2008, 54, 1189-1202.	3.6	74
18	Preparation and CO2 adsorption of diamine modified montmorillonite via exfoliation grafting route. Chemical Engineering Journal, 2013, 215-216, 699-708.	12.7	74

#	Article	IF	Citations
19	Effectiveness of Different Transition Metal Dispersed Catalysts for In Situ Heavy Oil Upgrading. Industrial & Engineering Chemistry Research, 2015, 54, 10645-10655.	3.7	73
20	Organocatalysis for versatile polymer degradation. Green Chemistry, 2020, 22, 3721-3726.	9.0	67
21	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
22	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
23	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
24	Characterization of intracellular palladium nanoparticles synthesized by Desulfovibrio desulfuricans and Bacillus benzeovorans. Journal of Nanoparticle Research, 2015, 17, 264.	1.9	61
25	Optimization of Heavy Oil Upgrading Using Dispersed Nanoparticulate Iron Oxide as a Catalyst. Energy & Fuels, 2015, 29, 6306-6316.	5.1	59
26	A facile acidic choline chlorideâ€“p-TSA DES-catalysed dehydration of fructose to 5-hydroxymethylfurfural. RSC Advances, 2014, 4, 39359-39364.	3.6	58
27	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
28	Experimental Optimization of Catalytic Process In Situ for Heavy-Oil and Bitumen Upgrading. Journal of Canadian Petroleum Technology, 2011, 50, 33-47.	2.3	54
29	Accelerated degradation of Polyetheretherketone (PEEK) composite materials for recycling applications. Polymer Degradation and Stability, 2015, 112, 52-62.	5.8	54
30	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
31	Zinc Complexes for PLA Formation and Chemical Recycling: Towards a Circular Economy. ChemSusChem, 2019, 12, 5233-5238.	6.8	53
32	Effect of cyclohexane as hydrogen-donor in ultradispersed catalytic upgrading of heavy oil. Fuel Processing Technology, 2015, 138, 724-733.	7.2	50
33	Minimisation and recycling of spent acid wastes from galvanizing plants. Resources, Conservation and Recycling, 2005, 44, 153-166.	10.8	49
34	Improving Selectivity in 2-Butyne-1,4-diol Hydrogenation using Biogenic Pt Catalysts. ACS Catalysis, 2012, 2, 504-511.	11.2	48
35	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
36	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

#	Article	IF	Citations
37	Palladium supported on bacterial biomass as a novel heterogeneous catalyst: A comparison of Pd/Al2O3 and bio-Pd in the hydrogenation of 2-pentyne. Chemical Engineering Science, 2010, 65, 282-290.	3.8	46
38	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
39	Hydrogenation of 2-Butyne-1,4-diol Using Novel Bio-Palladium Catalysts. Industrial & Engineering Chemistry Research, 2010, 49, 980-988.	3.7	44
40	Chemical Degradation of End-of-Life Poly(lactic acid) into Methyl Lactate by a Zn(II) Complex. Industrial & Engineering Chemistry Research, 2020, 59, 11149-11156.	3.7	43
41	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
42	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
43	Selective hydrogenation reactions: A comparative study of monolith CDC, stirred tank and trickle bed reactors. Catalysis Today, 2007, 128, 108-114.	4.4	41
44	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
45	Kinetic and selectivity studies of gasâ€"liquid reaction under Taylor flow in a circular capillary. Catalysis Today, 2007, 128, 36-46.	4.4	39
46	Downhole Heavy Crude Oil Upgrading Using CAPRI: Effect of Steam upon Upgrading and Coke Formation. Energy & Fuels, 2014, 28, 1811-1819.	5.1	37
47	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
48	Diffuse reflectance infrared Fourier transform spectroscopy (DRIFTS) study of ethyne hydrogenation on Pd/Al2O3. Catalysis Today, 2007, 128, 52-62.	4.4	36
49	Selective hydrogenation using palladium bioinorganic catalyst. Applied Catalysis B: Environmental, 2016, 199, 108-122.	20.2	36
50	Upgrading of heavy oil by dispersed biogenic magnetite catalysts. Fuel, 2016, 185, 442-448.	6.4	35
51	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. Fuel, 2017, 209, 449-456.	6.4	31
52	Efficiency of reed beds in treating dairy wastewater. Biosystems Engineering, 2007, 98, 455-469.	4.3	28
53	Selective Oxidation of Benzyl-Alcohol over Biomass-Supported Au/Pd Bioinorganic Catalysts. Topics in Catalysis, 2011, 54, 1110-1114.	2.8	27
54	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

#	Article	IF	Citations
55	In situ catalytic upgrading of heavy oil using a pelletized Ni-Mo/Al2O3 catalyst in the THAI process. Journal of Petroleum Science and Engineering, 2017, 156, 958-965.	4.2	26
56	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
57	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
58	Effect of Fines and Porous Catalyst on Hydrodynamics of Trickle Bed Reactors. Industrial & Engineering Chemistry Research, 2005, 44, 9497-9501.	3.7	24
59	A biogenic catalyst for hydrogenation, reduction and selective dehalogenation in non-aqueous solvents. Hydrometallurgy, 2008, 94, 138-143.	4.3	24
60	Use of <i>Desulfovibrio</i> and <i>Escherichia coli</i> Pdâ€nanocatalysts in reduction of Cr(VI) and hydrogenolytic dehalogenation of polychlorinated biphenyls and used transformer oil. Journal of Chemical Technology and Biotechnology, 2012, 87, 1430-1435.	3.2	24
61	Comparison of the effects of dispersed noble metal (Pd) biomass supported catalysts with typical hydrogenation (Pd/C, Pd/Al2O3) and hydrotreatment catalysts (CoMo/Al2O3) for in-situ heavy oil upgrading with Toe-to-Heel Air Injection (THAI). Fuel, 2016, 180, 367-376.	6.4	24
62	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
63	Kinetics of Methyl Lactate Formation from the Transesterification of Polylactic Acid Catalyzed by Zn(II) Complexes. ACS Omega, 2020, 5, 5556-5564.	3.5	23
64	Improving the interpretation of mercury porosimetry data using computerised X-ray tomography and mean-field DFT. Chemical Engineering Science, 2011, 66, 2328-2339.	3.8	22
65	Impact of Oil Composition on Microwave Heating Behavior of Heavy Oils. Energy & Fuels, 2018, 32, 1592-1599.	5.1	21
66	In-situ microwave-assisted catalytic upgrading of heavy oil: Experimental validation and effect of catalyst pore structure on activity. Chemical Engineering Journal, 2021, 413, 127420.	12.7	21
67	Preparation and CO2 adsorption of amine modified layered double hydroxide via anionic surfactant-mediated route. Chemical Engineering Journal, 2012, 181-182, 267-275.	12.7	20
68	Metallic bionanocatalysts: potential applications as green catalysts and energy materials. Microbial Biotechnology, 2017, 10, 1171-1180.	4.2	20
69	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
70	Two phase gasâ€œliquid reaction studies in a circular capillary. Chemical Engineering Science, 2007, 62, 5397-5401.	3.8	19
71	Scaling-out selective hydrogenation reactions: From single capillary reactor to monolith. Fuel, 2007, 86, 1304-1312.	6.4	18
72	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

#	Article	IF	Citations
73	Tetralin and Decalin H-Donor Effect on Catalytic Upgrading of Heavy Oil Inductively Heated with Steel Balls. Catalysts, 2020, 10, 393.	3.5	18
74	Mild-Temperature hydrodeoxygenation of vanillin a typical bio-oil model compound to Creosol a potential future biofuel. Catalysis Today, 2021, 379, 70-79.	4.4	18
75	Selective Hydrogenation of 1-Heptyne in a Mini Trickle Bed Reactor. Industrial & Engineering Chemistry Research, 2012, 51, 8815-8825.	3.7	17
76	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
77	Kinetics of Vanillin Hydrodeoxygenation Reaction in an Organic Solvent Using a Pd/C Catalyst. Industrial & Engineering Chemistry Research, 2019, 58, 15162-15172.	3.7	16
78	Maximizing paraffin to olefin ratio employing simulated nitrogen-rich syngas via Fischer-Tropsch process over Co3O4/SiO2 catalysts. Fuel Processing Technology, 2020, 208, 106477.	7.2	15
79	Hydrogenation and Dehydrogenation of Tetralin and Naphthalene to Explore Heavy Oil Upgrading Using NiMo/Al2O3 and CoMo/Al2O3 Catalysts Heated with Steel Balls via Induction. Catalysts, 2020, 10, 497.	3.5	15
80	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
81	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
82	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
83	Ethyl Lactate Production from the Catalytic Depolymerisation of Post-consumer Poly(lactic acid). Journal of Polymers and the Environment, 2020, 28, 2956-2964.	5.0	14
84	Hydrogenation of 2-pentyne over Pd/Al2O3 catalysts: Effect of operating variables and solvent selection. Applied Catalysis A: General, 2009, 364, 57-64.	4.3	13
85	Modified zeolite catalyst for selective dialkylation of naphthalene. Chemical Engineering Journal, 2012, 207-208, 329-341.	12.7	13
86	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
87	Microwave synthesis of carbon onions in fractal aggregates using heavy oil as a precursor. Carbon, 2018, 138, 427-435.	10.3	13
88	Kinetics of Alkyl Lactate Formation from the Alcoholysis of Poly(Lactic Acid). Processes, 2020, 8, 738.	2.8	13
89	Biorefining of platinum group metals from model waste solutions into catalytically active bimetallic nanoparticles. Microbial Biotechnology, 2018, 11, 359-368.	4.2	12
90	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

#	Article	IF	Citations
91	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
92	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
93	Heterogeneous oxidation of 2-octanol on 5wt%Ptâ€“1wt%Bi/Carbon catalyst. Chemical Engineering Science, 2010, 65, 179-185.	3.8	10
94	Enantioselective hydrogenation of dimethyl itaconate with immobilised rhodium-duphos complex in a recirculating fixed-bed reactor. Applied Catalysis A: General, 2011, 396, 148-158.	4.3	10
95	Characterization of Ni-Cu-based catalysts for multi-fuel steam reformer. International Journal of Low-Carbon Technologies, 2012, 7, 55-59.	2.6	10
96	Characterization of pore coking in catalyst for thermal down-hole upgrading of heavy oil. Chemical Engineering Science, 2015, 131, 138-145.	3.8	10
97	Inductive Heating Assisted-Catalytic Dehydrogenation of Tetralin as a Hydrogen Source for Downhole Catalytic Upgrading of Heavy Oil. Topics in Catalysis, 2020, 63, 268-280.	2.8	10
98	Experimental Optimization of Catalytic Process In-Situ for Heavy Oil and Bitumen Upgrading. , 2010, , .		9
99	Effect of supercritical conditions upon catalyst deactivation in the hydrogenation of naphthalene. Chemical Engineering Journal, 2012, 207-208, 133-141.	12.7	9
100	Kinetics of Hydrogenation of Acetic Acid over Supported Platinum Catalyst. Energy & Fuels, 2019, 33, 5551-5560.	5.1	9
101	Comparative Study on the Hydrogenation of Naphthalene over Both Al₂O₃-Supported Pd and NiMo Catalysts against a Novel LDH-Derived Ni-MMO-Supported Mo Catalyst. ACS Omega, 2021, 6, 20053-20067.	3.5	9
102	Prolonging catalyst lifetime in supercritical isomerization of 1-hexene over a platinum/alumina catalyst. Chemical Engineering Science, 2009, 64, 3427-3436.	3.8	8
103	Deactivation during 1-Hexene Isomerization over Zeolite Y and ZSM5 Catalysts under Supercritical Conditions. Industrial & Engineering Chemistry Research, 2011, 50, 7161-7171.	3.7	8
104	Photocatalytic performance of Li1âˆ’xAgxVMoO6 (0â©½xâ©½1) compounds. Chemical Engineering Journal, 2013, 234, 327-337.	12.7	8
105	3D printed re-entrant cavity resonator for complex permittivity measurement of crude oils. Sensors and Actuators A: Physical, 2021, 317, 112477.	4.1	8
106	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
107	Reaction Kinetics of Vanillin Hydrodeoxygenation in Acidic and Nonacidic Environments Using Bimetallic PdRh/Al₂O₃Catalyst. Energy & Fuels, 2019, 33, 11712-11723.	5.1	7
108	Synergistic Dual Catalytic System and Kinetics for the Alcoholysis of Poly(Lactic Acid). Processes, 2021, 9, 921.	2.8	7

#	Article	IF	Citations
109	Counting carbon fibres by electrical resistance measurement. Composites Part A: Applied Science and Manufacturing, 2015, 68, 276-281.	7.6	5
110	A parametric study of process design and cycle configurations for pre-combustion PSA applied to NGCC power plants. Chemical Engineering Research and Design, 2020, 160, 141-153.	5.6	5
111	Modelling of pore structure evolution during catalyst deactivation and comparison with experiment. Chemical Engineering Science, 2010, 65, 5550-5558.	3.8	4
112	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
113	Methanolysis of Poly(lactic Acid) Using Catalyst Mixtures and the Kinetics of Methyl Lactate Production. Polymers, 2022, 14, 1763.	4.5	3
114	Biomineralised Palladium is an Effective Hydrogenation Catalyst. Advanced Materials Research, 0, 71-73, 725-728.	0.3	2
115	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
116	Determination of the location of coke in catalysts by a novel NMR-based, liquid-porosimetry approach. Journal of Colloid and Interface Science, 2012, 381, 164-170.	9.4	1
117	Three-phase catalytic reactors for hydrogenation and oxidation reactions. ChemistrySelect, 2016, 1, .	1.5	1
118	Determination of the Spatial Location of Coke in Catalysts by a Novel NMR Approach. , 2011, , .		0
119	6. Three-phase catalytic reactors for hydrogenation and oxidation reactions. , 2015, , 220-282.		0
120	Optimization of Coke Resistant Catalyst for Thermal Down-hole Upgrading. , 2014, , .		0
121	Determination of the Spatial Location of Coke in Catalysts by a Novel NMR Approach. AIP Conference Proceedings, 2011, , .	0.4	0