List of Publications by Year in descending order

94 papers	2,297 citations	394421 19 h-index	233421 45 g-index
95 all docs	95 docs citations	95 times ranked	2313 citing authors

#	Article	IF	Citations
1	Thermochemical putrefaction of Delonix regia biomass and tube waste to produce high-quality pyrolytic bio-oil. Journal of Thermal Analysis and Calorimetry, 2022, 147, 2969-2983.	3.6	6
2	Dehydrogenation and dehydration of formic acid over orthorhombic molybdenum carbide. Catalysis Today, 2022, 384-386, 197-208.	4.4	13
3	Hydrodeoxygenation of guaiacol over orthorhombic molybdenum carbide: a DFT and microkinetic study. Catalysis Science and Technology, 2022, 12, 843-854.	4.1	12
4	Effect of varying fraction of polypropylene waste on co-pyrolysis of Delonix regia and Polyalthia longifolia leaves. Current Research in Green and Sustainable Chemistry, 2022, 5, 100233.	5.6	9
5	Computational fluid dynamics study on hydrodeoxygenation of pyrolytic bio-oil model compound, guaiacol, in fluidized bed reactor. Current Research in Green and Sustainable Chemistry, 2022, 5, 100287.	5.6	2
6	Reaction kinetics and thermodynamic analysis of non-isothermal co-pyrolysis of Delonix regia and tube waste. Bioresource Technology Reports, 2022, 18, 101032.	2.7	13
7	Insights on kinetic triplets and thermodynamic analysis of Delonix regia biomass pyrolysis. Bioresource Technology, 2022, 358, 127375.	9.6	23
8	Effect of temperature on catalytic pyrolysis of Polyalthia Longifolia leaves solid waste and characterization of their products. Current Research in Green and Sustainable Chemistry, 2021, 4, 100062.	5.6	13
9	Computational Fluid Dynamics Investigation on Catalytic Hydrodeoxygenation of a Bio-Oil Model Compound in a Fluidized Bed Reactor. Journal of Thermal Science and Engineering Applications, 2021, 13, .	1.5	6
10	Comprehensive study on thermochemical putrefaction of Delonix Regia in non-catalytic, catalytic and hydro-catalytic pyrolysis atmospheres. Renewable Energy, 2021, 173, 223-236.	8.9	20
11	Computational Study on Adsorption Characteristics of Phenol and Guaiacol Over Single and Multiple Nitrogenâ€Doped Graphene. ChemistrySelect, 2021, 6, 7682-7690.	1.5	3
12	Buoyancy-Aided Mixed Convection Between Shear-Thinning Non-Newtonian Nanofluids and Unbounded Elliptic Cylinders in a Vertical Channel. Heat Transfer Engineering, 2020, 41, 536-550.	1.9	4
13	Thermochemical conversion of Polyalthia longifolia leaves at different temperatures and characterization of their products. Fuel, 2020, 280, 118574.	6.4	16
14	Thermochemical Mapping of Levulinic Acid Conversion to Pentane in Supercritical Water within the Framework of Density Functional Theory. Energy & Fuels, 2020, 34, 11061-11072.	5.1	3
15	Kinetic Modeling of Conversion of Levulinic Acid to Valeric Acid in Supercritical Water Using the Density Functional Theory Framework. Industrial & Engineering Chemistry Research, 2020, 59, 18683-18692.	3.7	4
16	Study of Conversion of Bio-oil Model Compounds in Supercritical Water Using Density Functional Theory. Scientific Reports, 2020, 10, 9247.	3.3	5
17	DFT study on dibenzofuran conversion to cyclohexane and benzene in gas, water and methanol solvents. Journal of Molecular Graphics and Modelling, 2020, 99, 107629.	2.4	4
18	Comparative study on pyrolysis of Delonix Regia, Pinewood sawdust and their co-feed for plausible bio-fuels production. Energy, 2020, 203, 117921.	8.8	28

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19	Pyrolysis of Delonix Regia and Characterization of Its Pyrolytic Products: Effect of Pyrolysis Temperature. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	2.3	19
20	Forced convective heat transfer between assemblages of spherical particles and powerâ€law nonâ€Newtonian liquids with velocity slip at the interface. Heat Transfer - Asian Research, 2019, 48, 3214-3229.	2.8	1
21	Computational Study on Kinetics of Conversion of Bio-oil Model Compound â€“ Anisole, to Platform Chemicals. Journal of Physics: Conference Series, 2019, 1276, 012071.	0.4	2
22	Bio-oil production from a lignocellulosic biomass and its fuel characteristics. Journal of Physics: Conference Series, 2019, 1276, 012073.	0.4	4
23	Thermochemical Conversion of Guaiacol in Aqueous Phase by Density Functional Theory. ChemistrySelect, 2019, 4, 6013-6025.	1.5	11
24	DFT investigation on thermochemical analyses of conversion of xylose to linear alkanes in aqueous phase. Journal of Molecular Graphics and Modelling, 2019, 90, 199-209.	2.4	5
25	Production of hydrocarbons from a green algae (Oscillatoria) with exploration of its fuel characteristics over different reaction atmospheres. Energy, 2019, 178, 344-355.	8.8	33
26	First-principles study on the gas-phase decomposition of bio-oil oxygenated compounds over the palladium catalyst surface. Physical Chemistry Chemical Physics, 2019, 21, 22320-22330.	2.8	1
27	Combined effects of thermal jump and momentum slip on heat transfer phenomena of unbounded spherical particles. Acta Mechanica, 2019, 230, 201-211.	2.1	4
28	Laminar Mixed Convection of Non-Newtonian Nanofluids Flowing Vertically Upward Across a Confined Circular Cylinder. Journal of Thermal Science and Engineering Applications, 2018, 10, .	1.5	3
29	A Succinct Review on Upgrading of Lignin-Derived Bio-oil Model Components. Green Energy and Technology, 2018, , 315-334.	0.6	2
30	Production of Toluene by Decomposition of 2â€Hydroxyâ€6â€methylbenzaldehyde: A DFT Study. ChemistrySelect, 2018, 3, 220-229.	1.5	3
31	Quantum chemical study on gas phase decomposition of ferulic acid. Molecular Physics, 2018, 116, 1895-1907.	1.7	5
32	Quantum chemical study on gas phase pyrolysis of p-isopropenylphenol. Journal of Molecular Graphics and Modelling, 2018, 81, 134-145.	2.4	5
33	Computational Fluid Dynamics Study on Forced Convective Heat Transfer Phenomena of Spheres in Power-law Liquids with Velocity Slip at the Interface. Heat Transfer Engineering, 2018, 39, 162-179.	1.9	4
34	A review on hydrothermal liquefaction of biomass. Renewable and Sustainable Energy Reviews, 2018, 81, 1378-1392.	16.4	807
35	CFD study on rise and deformation characteristics of buoyancy-driven spheroid bubbles in stagnant Carreau model non-Newtonian fluids. Theoretical and Computational Fluid Dynamics, 2018, 32, 35-46.	2.2	6
36	Flow behaviour and drag coefficients of spherical bubbles in surfactant-laden Carreau model fluids. Progress in Computational Fluid Dynamics, 2018, 18, 257.	0.2	3

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37	Decomposition of acetic acid over Ru and Ru/MgO catalyst clusters under DFT framework. Chemical Physics Letters, 2018, 711, 156-165.	2.6	3
38	Elucidation of novel mechanisms to produce value-added chemicals from vapour phase conversion of ferulic acid. Theoretical Chemistry Accounts, 2018, 137, 1.	1.4	2
39	Critical Reynolds numbers of shear-thinning fluids flow past unbounded spheres. Powder Technology, 2018, 339, 747-759.	4.2	11
40	Binding of phenolic model compounds with noble metal doped graphene sheets. Computational and Theoretical Chemistry, 2018, 1134, 37-46.	2.5	9
41	Molecular modeling approach to elucidate gas phase hydrodeoxygenation of guaiacol over a Pd(111) catalyst within DFT framework. Journal of Molecular Modeling, 2018, 24, 254.	1.8	8
42	Computational Study on Ring Saturation of 2-Hydroxybenzaldehyde Using Density Functional Theory. ACS Omega, 2018, 3, 8546-8552.	3.5	0
43	Heat Transfer Phenomena of Assemblages of Smooth Slip Spheres in Newtonian Fluids. Heat Transfer - Asian Research, 2017, 46, 160-175.	2.8	6
44	Gas phase conversion of eugenol into various hydrocarbons and platform chemicals. RSC Advances, 2017, 7, 2527-2543.	3.6	23
45	Production of Benzene from 2â€Hydroxybenzaldehyde by Various Reaction Paths using IRC Calculations within a DFT framework. ChemistrySelect, 2017, 2, 1556-1564.	1.5	11
46	Effect of velocity slip on settling of assemblages of spherical particles in power-law liquids at low to moderate Reynolds numbers. Acta Mechanica, 2017, 228, 1871-1889.	2.1	2
47	Thermochemistry analyses for transformation of C6 glucose compound into C9, C12 and C15 alkanes using density functional theory. Molecular Physics, 2017, 115, 413-423.	1.7	5
48	Effects of Uniform Heat Flux and Velocity-Slip Conditions at Interface on Heat Transfer Phenomena of Smooth Spheres in Newtonian Fluids. Journal of Heat Transfer, 2017, 139, .	2.1	8
49	Molecular simulations of palladium catalysed hydrodeoxygenation of 2-hydroxybenzaldehyde using density functional theory. Physical Chemistry Chemical Physics, 2017, 19, 25582-25597.	2.8	16
50	Mixed convection of shear-thinning nanofluids past unconfined elliptical cylinders in vertical upward flow. International Journal of Thermal Sciences, 2017, 122, 326-358.	4.9	9
51	Molecular modelling approach to elucidate the thermal decomposition routes of vanillin. New Journal of Chemistry, 2017, 41, 8845-8859.	2.8	15
52	Platinum catalyzed hydrodeoxygenation of guaiacol in illumination of cresol production: a density functional theory study. Royal Society Open Science, 2017, 4, 170650.	2.4	6
53	DFT study on gas-phase hydrodeoxygenation of guaiacol by various reaction schemes. Molecular Simulation, 2017, 43, 141-153.	2.0	23
54	Heat Transfer from Confined Contaminated Bubbles to Powerâ€Law Liquids at Low to Moderate Reynolds and Prandtl Numbers. Heat Transfer - Asian Research, 2017, 46, 681-702.	2.8	3

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55	Flow Behavior and Drag Coefficients of Spherical Bubbles in Surfactant-laden Carreau Model Fluids. Progress in Computational Fluid Dynamics, 2017, 1, 1.	0.2	1
56	Slip in Flow through Assemblages of Spherical Particles at Low to Moderate Reynolds Numbers. Chemical Engineering and Technology, 2016, 39, 1087-1098.	1.5	6
57	DFT Analyses of Reaction Pathways and Temperature Effects on various Guaiacol Conversion Reactions in Gas Phase Environment. ChemistrySelect, 2016, 1, 6196-6205.	1.5	24
58	Forced convective heat transfer from spheres to Newtonian fluids in steady axisymmetric flow regime with velocity slip at fluidâ€“solid interface. International Journal of Thermal Sciences, 2016, 105, 206-217.	4.9	18
59	A review on the upgradation techniques of pyrolysis oil. Renewable and Sustainable Energy Reviews, 2016, 58, 1543-1568.	16.4	297
60	Momentum and Mass Transfer Phenomena of Contaminated Bubble Swarms in Power-Law Liquids. International Journal of Fluid Mechanics Research, 2016, 43, 119-140.	0.4	1
61	Mixed Convective Heat Transfer Phenomena of Circular Cylinders to Non-Newtonian Nanofluids Flowing Upward. Procedia Engineering, 2015, 127, 118-125.	1.2	10
62	Heat Transfer from Slip Spheres to a Shear-Thickening Fluid: Effects of Slip Velocity and Particle Volume Fraction. Procedia Engineering, 2015, 127, 354-361.	1.2	5
63	Motion of partially contaminated bubbles in power-law liquids: Effect of wall retardation. International Journal of Mineral Processing, 2015, 140, 8-18.	2.6	7
64	A numerical study on flow and drag phenomena of spheroid bubbles in Newtonian and shear-thinning power-law fluids. International Journal of Modelling and Simulation, 2015, 35, 73-81.	3.3	5
65	CFD simulations on the effect of catalysts on the hydrodeoxygenation of bio-oil. RSC Advances, 2015, 5, 41855-41866.	3.6	20
66	Slip in flows of power-law liquids past smooth spherical particles. Acta Mechanica, 2015, 226, 2555-2571.	2.1	13
67	CFD simulations of catalytic hydrodeoxygenation of bio-oil using Pt/Al₂O₃ in a fixed bed reactor. RSC Advances, 2015, 5, 90354-90366.	3.6	19
68	Buoyancy driven bubble rise and deformation in milli/micro channels filled with shear-thinning nanofluids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 467, 66-77.	4.7	10
69	Effect of contamination on rise velocity of bubble swarms at moderate Reynolds numbers. Chemical Engineering Research and Design, 2014, 92, 1016-1026.	5.6	15
70	Effects of Contamination and Powerâ€Law Fluid Viscosity on Heat Transfer Phenomena of Spherical Bubbles. Chemical Engineering and Technology, 2014, 37, 1757-1764.	1.5	4
71	Momentum and Heat Transfer Phenomena of Confined Spheroid Particles in Power-Law Liquids. Industrial & Engineering Chemistry Research, 2014, 53, 989-998.	3.7	18
72	Drag of contaminated bubbles in power-law fluids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 443, 240-248.	4.7	17

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73	Effects of Wall Confinement and Powerâ€Law Fluid Viscosity on Nusselt Number of Confined Spheres. Chemical Engineering and Technology, 2013, 36, 1568-1576.	1.5	8
74	Drag of Tandem Spheroids in Power-Law Fluids at Moderate Reynolds Numbers. Industrial & Engineering Chemistry Research, 2013, 52, 11773-11778.	3.7	4
75	Effects of Contamination and Shear-Thinning Fluid Viscosity on Drag Behavior of Spherical Bubbles. Industrial & Engineering Chemistry Research, 2013, 52, 6049-6056.	3.7	22
76	Flow and Drag Phenomena of Tandem Spheroid Particles at Finite Reynolds Numbers. Industrial & Engineering Chemistry Research, 2012, 51, 3186-3196.	3.7	18
77	Numerical Investigation of Interaction between Spheroid Particles in Tandem Arrangement at Moderate Reynolds Numbers. Industrial & Engineering Chemistry Research, 2012, 51, 10265-10273.	3.7	6
78	Wall Retardation Effects on Flow and Drag Phenomena of Confined Spherical Particles in Shear-Thickening Fluids. Industrial & Engineering Chemistry Research, 2012, 51, 16755-16762.	3.7	13
79	Momentum and heat transfer phenomena of spheroid particles at moderate Reynolds and Prandtl numbers. International Journal of Heat and Mass Transfer, 2011, 54, 2595-2601.	4.8	78
80	Effect of Blockage on Heat Transfer Phenomena of Spheroid Particles at Moderate Reynolds and Prandtl Numbers. Chemical Engineering and Technology, 2011, 34, 1551-1558.	1.5	29
81	Wall Effects on Flow and Drag Phenomena of Spheroid Particles at Moderate Reynolds Numbers. Industrial & Engineering Chemistry Research, 2010, 49, 9486-9495.	3.7	35
82	Momentum and Heat Transfer Phenomena for Powerâ€“Law Liquids in Assemblages of Solid Spheres of Moderate to Large Void Fractions. Numerical Heat Transfer; Part A: Applications, 2009, 56, 970-986.	2.1	9
83	Flow of Power-Law Liquids Past a Solid Sphere With and Without Radial Mass Flux at Moderate Reynolds Numbers. Journal of Chemical Engineering of Japan, 2009, 42, 545-554.	0.6	5
84	Drag on ensembles of fluid spheres translating in a power-law liquid at moderate Reynolds numbers. Chemical Engineering Journal, 2008, 139, 224-235.	12.7	23
85	Effect of dispersed phase rheology on the drag of single and of ensembles of fluid spheres at moderate Reynolds numbers. Chemical Engineering Journal, 2008, 141, 387-392.	12.7	13
86	Mass transfer from ensembles of fluid spheres to a power-law liquid at moderate Reynolds and Peclet numbers. Chemical Engineering Science, 2008, 63, 2484-2499.	3.8	11
87	Bubble swarms in power-law liquids at moderate Reynolds numbers: Drag and mass transfer. Chemical Engineering Research and Design, 2008, 86, 39-53.	5.6	21
88	Drag and Mass Transfer of Bubble Swarms in Power-Law Liquids at Moderate Reynolds and Peclet Numbers. , 2007, , 487.		0
89	Mass transfer from a single fluid sphere to power-law liquids at moderate Reynolds numbers. Chemical Engineering Science, 2007, 62, 6040-6053.	3.8	24
90	Mass Transfer from Ensembles of Newtonian Fluid Spheres at Moderate Reynolds and Peclet Numbers. Chemical Engineering Research and Design, 2007, 85, 1203-1214.	5.6	19

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91	Drag on a single fluid sphere translating in power-law liquids at moderate Reynolds numbers. Chemical Engineering Science, 2007, 62, 2422-2434.	3.8	33
92	Sedimentation in Emulsions of Mono-size Droplets at Moderate Reynolds Numbers. Chemical Engineering Research and Design, 2006, 84, 1180-1193.	5.6	22
93	Separation of chromium (VI) using modified ultrafiltration charged carbon membrane and its mathematical modeling. Journal of Membrane Science, 2005, 254, 229-239.	8.2	76
94	Synthesis and characterization of a nanofiltration carbon membrane derived from phenolâ€“formaldehyde resin. Carbon, 2003, 41, 2961-2972.	10.3	76