

## List of Publications by Year in descending order

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94  
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docs citations

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2313  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on hydrothermal liquefaction of biomass. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 1378-1392.	8.2	807
2	A review on the upgradation techniques of pyrolysis oil. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 58, 1543-1568.	8.2	297
3	Momentum and heat transfer phenomena of spheroid particles at moderate Reynolds and Prandtl numbers. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 2595-2601.	2.5	78
4	Synthesis and characterization of a nanofiltration carbon membrane derived from phenol-formaldehyde resin. <i>Carbon</i> , 2003, 41, 2961-2972.	5.4	76
5	Separation of chromium (VI) using modified ultrafiltration charged carbon membrane and its mathematical modeling. <i>Journal of Membrane Science</i> , 2005, 254, 229-239.	4.1	76
6	Wall Effects on Flow and Drag Phenomena of Spheroid Particles at Moderate Reynolds Numbers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 9486-9495.	1.8	35
7	Drag on a single fluid sphere translating in power-law liquids at moderate Reynolds numbers. <i>Chemical Engineering Science</i> , 2007, 62, 2422-2434.	1.9	33
8	Production of hydrocarbons from a green algae ( <i>Oscillatoria</i> ) with exploration of its fuel characteristics over different reaction atmospheres. <i>Energy</i> , 2019, 178, 344-355.	4.5	33
9	Effect of Blockage on Heat Transfer Phenomena of Spheroid Particles at Moderate Reynolds and Prandtl Numbers. <i>Chemical Engineering and Technology</i> , 2011, 34, 1551-1558.	0.9	29
10	Comparative study on pyrolysis of <i>Delonix Regia</i> , Pinewood sawdust and their co-feed for plausible bio-fuels production. <i>Energy</i> , 2020, 203, 117921.	4.5	28
11	Mass transfer from a single fluid sphere to power-law liquids at moderate Reynolds numbers. <i>Chemical Engineering Science</i> , 2007, 62, 6040-6053.	1.9	24
12	DFT Analyses of Reaction Pathways and Temperature Effects on various Guaiacol Conversion Reactions in Gas Phase Environment. <i>ChemistrySelect</i> , 2016, 1, 6196-6205.	0.7	24
13	Drag on ensembles of fluid spheres translating in a power-law liquid at moderate Reynolds numbers. <i>Chemical Engineering Journal</i> , 2008, 139, 224-235.	6.6	23
14	Gas phase conversion of eugenol into various hydrocarbons and platform chemicals. <i>RSC Advances</i> , 2017, 7, 2527-2543.	1.7	23
15	DFT study on gas-phase hydrodeoxygenation of guaiacol by various reaction schemes. <i>Molecular Simulation</i> , 2017, 43, 141-153.	0.9	23
16	Insights on kinetic triplets and thermodynamic analysis of <i>Delonix regia</i> biomass pyrolysis. <i>Bioresource Technology</i> , 2022, 358, 127375.	4.8	23
17	Sedimentation in Emulsions of Mono-size Droplets at Moderate Reynolds Numbers. <i>Chemical Engineering Research and Design</i> , 2006, 84, 1180-1193.	2.7	22
18	Effects of Contamination and Shear-Thinning Fluid Viscosity on Drag Behavior of Spherical Bubbles. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 6049-6056.	1.8	22

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19	Bubble swarms in power-law liquids at moderate Reynolds numbers: Drag and mass transfer. <i>Chemical Engineering Research and Design</i> , 2008, 86, 39-53.	2.7	21
20	CFD simulations on the effect of catalysts on the hydrodeoxygenation of bio-oil. <i>RSC Advances</i> , 2015, 5, 41855-41866.	1.7	20
21	Comprehensive study on thermochemical putrefaction of Delonix Regia in non-catalytic, catalytic and hydro-catalytic pyrolysis atmospheres. <i>Renewable Energy</i> , 2021, 173, 223-236.	4.3	20
22	Mass Transfer from Ensembles of Newtonian Fluid Spheres at Moderate Reynolds and Peclet Numbers. <i>Chemical Engineering Research and Design</i> , 2007, 85, 1203-1214.	2.7	19
23	CFD simulations of catalytic hydrodeoxygenation of bio-oil using Pt/Al <sub>2</sub> O <sub>3</sub> in a fixed bed reactor. <i>RSC Advances</i> , 2015, 5, 90354-90366.	1.7	19
24	Pyrolysis of Delonix Regia and Characterization of Its Pyrolytic Products: Effect of Pyrolysis Temperature. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2020, 142, .	1.4	19
25	Flow and Drag Phenomena of Tandem Spheroid Particles at Finite Reynolds Numbers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 3186-3196.	1.8	18
26	Momentum and Heat Transfer Phenomena of Confined Spheroid Particles in Power-Law Liquids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 989-998.	1.8	18
27	Forced convective heat transfer from spheres to Newtonian fluids in steady axisymmetric flow regime with velocity slip at fluid–solid interface. <i>International Journal of Thermal Sciences</i> , 2016, 105, 206-217.	2.6	18
28	Drag of contaminated bubbles in power-law fluids. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 443, 240-248.	2.3	17
29	Molecular simulations of palladium catalysed hydrodeoxygenation of 2-hydroxybenzaldehyde using density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 25582-25597.	1.3	16
30	Thermochemical conversion of Polyalthia longifolia leaves at different temperatures and characterization of their products. <i>Fuel</i> , 2020, 280, 118574.	3.4	16
31	Effect of contamination on rise velocity of bubble swarms at moderate Reynolds numbers. <i>Chemical Engineering Research and Design</i> , 2014, 92, 1016-1026.	2.7	15
32	Molecular modelling approach to elucidate the thermal decomposition routes of vanillin. <i>New Journal of Chemistry</i> , 2017, 41, 8845-8859.	1.4	15
33	Effect of dispersed phase rheology on the drag of single and of ensembles of fluid spheres at moderate Reynolds numbers. <i>Chemical Engineering Journal</i> , 2008, 141, 387-392.	6.6	13
34	Wall Retardation Effects on Flow and Drag Phenomena of Confined Spherical Particles in Shear-Thickening Fluids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 16755-16762.	1.8	13
35	Slip in flows of power-law liquids past smooth spherical particles. <i>Acta Mechanica</i> , 2015, 226, 2555-2571.	1.1	13
36	Effect of temperature on catalytic pyrolysis of Polyalthia Longifolia leaves solid waste and characterization of their products. <i>Current Research in Green and Sustainable Chemistry</i> , 2021, 4, 100062.	2.9	13

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37	Dehydrogenation and dehydration of formic acid over orthorhombic molybdenum carbide. <i>Catalysis Today</i> , 2022, 384-386, 197-208.	2.2	13
38	Reaction kinetics and thermodynamic analysis of non-isothermal co-pyrolysis of Delonix regia and tube waste. <i>Bioresource Technology Reports</i> , 2022, 18, 101032.	1.5	13
39	Hydrodeoxygenation of guaiacol over orthorhombic molybdenum carbide: a DFT and microkinetic study. <i>Catalysis Science and Technology</i> , 2022, 12, 843-854.	2.1	12
40	Mass transfer from ensembles of fluid spheres to a power-law liquid at moderate Reynolds and Peclet numbers. <i>Chemical Engineering Science</i> , 2008, 63, 2484-2499.	1.9	11
41	Production of Benzene from 2-Hydroxybenzaldehyde by Various Reaction Paths using IRC Calculations within a DFT framework. <i>ChemistrySelect</i> , 2017, 2, 1556-1564.	0.7	11
42	Critical Reynolds numbers of shear-thinning fluids flow past unbounded spheres. <i>Powder Technology</i> , 2018, 339, 747-759.	2.1	11
43	Thermochemical Conversion of Guaiacol in Aqueous Phase by Density Functional Theory. <i>ChemistrySelect</i> , 2019, 4, 6013-6025.	0.7	11
44	Mixed Convective Heat Transfer Phenomena of Circular Cylinders to Non-Newtonian Nanofluids Flowing Upward. <i>Procedia Engineering</i> , 2015, 127, 118-125.	1.2	10
45	Buoyancy driven bubble rise and deformation in milli/micro channels filled with shear-thinning nanofluids. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 467, 66-77.	2.3	10
46	Momentum and Heat Transfer Phenomena for Power-Law Liquids in Assemblages of Solid Spheres of Moderate to Large Void Fractions. <i>Numerical Heat Transfer; Part A: Applications</i> , 2009, 56, 970-986.	1.2	9
47	Mixed convection of shear-thinning nanofluids past unconfined elliptical cylinders in vertical upward flow. <i>International Journal of Thermal Sciences</i> , 2017, 122, 326-358.	2.6	9
48	Binding of phenolic model compounds with noble metal doped graphene sheets. <i>Computational and Theoretical Chemistry</i> , 2018, 1134, 37-46.	1.1	9
49	Effect of varying fraction of polypropylene waste on co-pyrolysis of Delonix regia and Polyalthia longifolia leaves. <i>Current Research in Green and Sustainable Chemistry</i> , 2022, 5, 100233.	2.9	9
50	Effects of Wall Confinement and Power-Law Fluid Viscosity on Nusselt Number of Confined Spheres. <i>Chemical Engineering and Technology</i> , 2013, 36, 1568-1576.	0.9	8
51	Effects of Uniform Heat Flux and Velocity-Slip Conditions at Interface on Heat Transfer Phenomena of Smooth Spheres in Newtonian Fluids. <i>Journal of Heat Transfer</i> , 2017, 139, .	1.2	8
52	Molecular modeling approach to elucidate gas phase hydrodeoxygenation of guaiacol over a Pd(111) catalyst within DFT framework. <i>Journal of Molecular Modeling</i> , 2018, 24, 254.	0.8	8
53	Motion of partially contaminated bubbles in power-law liquids: Effect of wall retardation. <i>International Journal of Mineral Processing</i> , 2015, 140, 8-18.	2.6	7
54	Numerical Investigation of Interaction between Spheroid Particles in Tandem Arrangement at Moderate Reynolds Numbers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 10265-10273.	1.8	6

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55	Slip in Flow through Assemblages of Spherical Particles at Low to Moderate Reynolds Numbers. <i>Chemical Engineering and Technology</i> , 2016, 39, 1087-1098.	0.9	6
56	Heat Transfer Phenomena of Assemblages of Smooth Slip Spheres in Newtonian Fluids. <i>Heat Transfer - Asian Research</i> , 2017, 46, 160-175.	2.8	6
57	Platinum catalyzed hydrodeoxygenation of guaiacol in illumination of cresol production: a density functional theory study. <i>Royal Society Open Science</i> , 2017, 4, 170650.	1.1	6
58	CFD study on rise and deformation characteristics of buoyancy-driven spheroid bubbles in stagnant Carreau model non-Newtonian fluids. <i>Theoretical and Computational Fluid Dynamics</i> , 2018, 32, 35-46.	0.9	6
59	Computational Fluid Dynamics Investigation on Catalytic Hydrodeoxygenation of a Bio-Oil Model Compound in a Fluidized Bed Reactor. <i>Journal of Thermal Science and Engineering Applications</i> , 2021, 13, .	0.8	6
60	Thermochemical putrefaction of <i>Delonix regia</i> biomass and tube waste to produce high-quality pyrolytic bio-oil. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 2969-2983.	2.0	6
61	Heat Transfer from Slip Spheres to a Shear-Thickening Fluid: Effects of Slip Velocity and Particle Volume Fraction. <i>Procedia Engineering</i> , 2015, 127, 354-361.	1.2	5
62	A numerical study on flow and drag phenomena of spheroid bubbles in Newtonian and shear-thinning power-law fluids. <i>International Journal of Modelling and Simulation</i> , 2015, 35, 73-81.	2.3	5
63	Thermochemistry analyses for transformation of C6 glucose compound into C9, C12 and C15 alkanes using density functional theory. <i>Molecular Physics</i> , 2017, 115, 413-423.	0.8	5
64	Quantum chemical study on gas phase decomposition of ferulic acid. <i>Molecular Physics</i> , 2018, 116, 1895-1907.	0.8	5
65	Quantum chemical study on gas phase pyrolysis of p-isopropenylphenol. <i>Journal of Molecular Graphics and Modelling</i> , 2018, 81, 134-145.	1.3	5
66	DFT investigation on thermochemical analyses of conversion of xylose to linear alkanes in aqueous phase. <i>Journal of Molecular Graphics and Modelling</i> , 2019, 90, 199-209.	1.3	5
67	Study of Conversion of Bio-oil Model Compounds in Supercritical Water Using Density Functional Theory. <i>Scientific Reports</i> , 2020, 10, 9247.	1.6	5
68	Flow of Power-Law Liquids Past a Solid Sphere With and Without Radial Mass Flux at Moderate Reynolds Numbers. <i>Journal of Chemical Engineering of Japan</i> , 2009, 42, 545-554.	0.3	5
69	Drag of Tandem Spheroids in Power-Law Fluids at Moderate Reynolds Numbers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 11773-11778.	1.8	4
70	Effects of Contamination and Power-Law Fluid Viscosity on Heat Transfer Phenomena of Spherical Bubbles. <i>Chemical Engineering and Technology</i> , 2014, 37, 1757-1764.	0.9	4
71	Computational Fluid Dynamics Study on Forced Convective Heat Transfer Phenomena of Spheres in Power-law Liquids with Velocity Slip at the Interface. <i>Heat Transfer Engineering</i> , 2018, 39, 162-179.	1.2	4
72	Bio-oil production from a lignocellulosic biomass and its fuel characteristics. <i>Journal of Physics: Conference Series</i> , 2019, 1276, 012073.	0.3	4

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73	Combined effects of thermal jump and momentum slip on heat transfer phenomena of unbounded spherical particles. <i>Acta Mechanica</i> , 2019, 230, 201-211.	1.1	4
74	Buoyancy-Aided Mixed Convection Between Shear-Thinning Non-Newtonian Nanofluids and Unbounded Elliptic Cylinders in a Vertical Channel. <i>Heat Transfer Engineering</i> , 2020, 41, 536-550.	1.2	4
75	Kinetic Modeling of Conversion of Levulinic Acid to Valeric Acid in Supercritical Water Using the Density Functional Theory Framework. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 18683-18692.	1.8	4
76	DFT study on dibenzofuran conversion to cyclohexane and benzene in gas, water and methanol solvents. <i>Journal of Molecular Graphics and Modelling</i> , 2020, 99, 107629.	1.3	4
77	Heat Transfer from Confined Contaminated Bubbles to Power-law Liquids at Low to Moderate Reynolds and Prandtl Numbers. <i>Heat Transfer - Asian Research</i> , 2017, 46, 681-702.	2.8	3
78	Laminar Mixed Convection of Non-Newtonian Nanofluids Flowing Vertically Upward Across a Confined Circular Cylinder. <i>Journal of Thermal Science and Engineering Applications</i> , 2018, 10, .	0.8	3
79	Production of Toluene by Decomposition of 2-Hydroxy-6-methylbenzaldehyde: A DFT Study. <i>ChemistrySelect</i> , 2018, 3, 220-229.	0.7	3
80	Flow behaviour and drag coefficients of spherical bubbles in surfactant-laden Carreau model fluids. <i>Progress in Computational Fluid Dynamics</i> , 2018, 18, 257.	0.1	3
81	Decomposition of acetic acid over Ru and Ru/MgO catalyst clusters under DFT framework. <i>Chemical Physics Letters</i> , 2018, 711, 156-165.	1.2	3
82	Thermochemical Mapping of Levulinic Acid Conversion to Pentane in Supercritical Water within the Framework of Density Functional Theory. <i>Energy &amp; Fuels</i> , 2020, 34, 11061-11072.	2.5	3
83	Computational Study on Adsorption Characteristics of Phenol and Guaiacol Over Single and Multiple Nitrogen-doped Graphene. <i>ChemistrySelect</i> , 2021, 6, 7682-7690.	0.7	3
84	Effect of velocity slip on settling of assemblages of spherical particles in power-law liquids at low to moderate Reynolds numbers. <i>Acta Mechanica</i> , 2017, 228, 1871-1889.	1.1	2
85	A Succinct Review on Upgrading of Lignin-Derived Bio-oil Model Components. <i>Green Energy and Technology</i> , 2018, , 315-334.	0.4	2
86	Elucidation of novel mechanisms to produce value-added chemicals from vapour phase conversion of ferulic acid. <i>Theoretical Chemistry Accounts</i> , 2018, 137, 1.	0.5	2
87	Computational Study on Kinetics of Conversion of Bio-oil Model Compound "Anisole, to Platform Chemicals. <i>Journal of Physics: Conference Series</i> , 2019, 1276, 012071.	0.3	2
88	Computational fluid dynamics study on hydrodeoxygenation of pyrolytic bio-oil model compound, guaiacol, in fluidized bed reactor. <i>Current Research in Green and Sustainable Chemistry</i> , 2022, 5, 100287.	2.9	2
89	Forced convective heat transfer between assemblages of spherical particles and power-law non-Newtonian liquids with velocity slip at the interface. <i>Heat Transfer - Asian Research</i> , 2019, 48, 3214-3229.	2.8	1
90	First-principles study on the gas-phase decomposition of bio-oil oxygenated compounds over the palladium catalyst surface. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22320-22330.	1.3	1

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91	Flow Behavior and Drag Coefficients of Spherical Bubbles in Surfactant-laden Carreau Model Fluids. Progress in Computational Fluid Dynamics, 2017, 1, 1.	0.1	1
92	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
93	Drag and Mass Transfer of Bubble Swarms in Power-Law Liquids at Moderate Reynolds and Peclet Numbers. , 2007, , 487.		0
94	Computational Study on Ring Saturation of 2-Hydroxybenzaldehyde Using Density Functional Theory. ACS Omega, 2018, 3, 8546-8552.	1.6	0