Vishnu K Pareek

List of Publications by Year
in descending order

144 papers	4,991 citations	101543 36 h-index	106344 65 g-index
149 all docs	149 docs citations	149 times ranked	6007 citing authors

#	Article	IF	Citations
1	Kinetic modelling of pyrolysis of cellulose using CPD model: effect of salt. Journal of Thermal Analysis and Calorimetry, 2022, 147, 9763-9777.	3.6	5
2	Packed bed methanol reactor with flow diverters. Chemical Engineering and Processing: Process Intensification, 2022, , 108916.	3.6	1
3	Fast Pyrolysis Downer Reactor: Effect of Reactor Geometry on the Hydrodynamics. Industrial & Engineering Chemistry Research, 2022, 61, 4153-4167.	3.7	3
4	Optimized Process for Methanol Production via Bi-reforming Syngas. Industrial & Engineering Chemistry Research, 2022, 61, 5557-5567.	3.7	5
5	Numerical evaluation of an additively manufactured uniform fractal flow mixer. Chemical Engineering and Processing: Process Intensification, 2022, 179, 109047.	3.6	3
6	Study on hydrodynamic performance of structured packings for gas-liquid flow: Effects of geometry parameters. Chemical Engineering Research and Design, 2021, 167, 318-326.	5.6	10
7	Simulations and Optimization of a Reduced CO_2 Emission Process for Methanol Production Using Syngas from Bi-reforming. Energy & Fuels, 2021, 35, 8844-8856.	5.1	13
8	Investigation on fog formation of LNG ambient air vaporisers. Applied Thermal Engineering, 2021, 193, 117023.	6.0	5
9	A temperature-dependent potential model for mercury in the description of vapour-liquid equilibrium & adsorption in activated carbon. Chemical Engineering Science, 2020, 215, 115453.	3.8	3
10	Multiphase simulation of LNG vapour dispersion with effect of fog formation. Applied Thermal Engineering, 2020, 166, 114671.	6.0	10
11	Dynamic study of frost formation on cryogenic surface. International Journal of Heat and Mass Transfer, 2020, 150, 119372.	4.8	29
12	Additively manufactured, highly-uniform flow distributor for process intensification. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107595.	3.6	20
13	Simultaneous measurements of two phases using an optical probe. Experimental and Computational Multiphase Flow, 2019, 1, 233-241.	3.9	15
14	Intensified isothermal reactor for methanol synthesis. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107606.	3.6	11
15	Effect of column inclination and oscillation on liquid spreading in a trickle bed. Chemical Engineering Research and Design, 2019, 152, 165-179.	5.6	4
16	A novel settling tank for produced water treatment: CFD simulations and PIV experiments. Journal of Petroleum Science and Engineering, 2019, 182, 106352.	4.2	14
17	Perovskite-derived trimetallic Co-Ni-Cu catalyst for higher alcohol synthesis from syngas. Fuel Processing Technology, 2019, 193, 141-148.	7.2	25
18	Dynamic Simulation on Deflagration of LNG Spill. Journal of Combustion, 2019, 2019, 1-12.	1.0	1

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19	Modelling of particle segregation in fluidized beds. Powder Technology, 2019, 353, 202-218.	4.2	12
20	Lowering greenhouse gas (GHG) emissions: techno‐economic analysis of biomass conversion to biofuels and value‐added chemicals. , 2019, 9, 454-473.		16
21	A review on biomass pyrolysis models: Kinetic, network and mechanistic models. Biomass and Bioenergy, 2019, 123, 104-122.	5.7	183
22	Characteristics of energy production and dissipation around a bubble rising in water. Chemical Engineering Science, 2019, 193, 38-52.	3.8	18
23	Vortex shape and gas‐liquid hydrodynamics in unbaffled stirred tank. Canadian Journal of Chemical Engineering, 2019, 97, 1913-1920.	1.7	8
24	Lupin seed γ-conglutin: Extraction and purification methods - A review. Trends in Food Science and Technology, 2018, 73, 1-11.	15.1	20
25	Numerical study of fog formation around ambient air vaporizers. Chemical Engineering Science, 2018, 183, 37-46.	3.8	12
26	Impact of HSPBT blade angle on gas phase hydrodynamics in a gas–liquid stirred tank. Chemical Engineering Research and Design, 2018, 130, 219-229.	5.6	8
27	Effect of baffles on performance of fluid catalytic cracking riser. Particuology, 2018, 38, 18-30.	3.6	13
28	Evaporation of a suspended binary mixture droplet in a heated flowing gas stream. Experimental Thermal and Fluid Science, 2018, 91, 329-344.	2.7	17
29	Dry reforming of methane over Co–Mo/Al$_2$O$_3$ catalyst under low microwave power irradiation. Catalysis Science and Technology, 2018, 8, 5315-5324.	4.1	31
30	Estimation of Bubble Properties in Bubbling Fluidized Bed Using ECVT Measurements. Industrial & Engineering Chemistry Research, 2018, 57, 8319-8333.	3.7	20
31	Effect of bubble on the pressure spectra of oscillating grid turbulent flow at low Taylor-Reynolds number. Chemical Engineering Science, 2018, 190, 28-39.	3.8	7
32	LODOS - Going from BIM to CFD via CAD and model abstraction. Automation in Construction, 2018, 94, 85-92.	9.8	5
33	Modeling of Cryogenic Liquefied Natural Gas Ambient Air Vaporizers. Industrial & Engineering Chemistry Research, 2018, 57, 9281-9291.	3.7	18
34	Evaporation of a sessile binary droplet on a heated spherical particle. Experimental Thermal and Fluid Science, 2018, 99, 558-571.	2.7	14
35	Effect of drag models on CFD–DEM predictions of bubbling fluidized beds with Geldart D particles. Advanced Powder Technology, 2018, 29, 2658-2669.	4.1	36
36	Bubble generated turbulence and direct numerical simulations. Chemical Engineering Science, 2017, 157, 26-75.	3.8	45

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37	A review on photocatalysis for air treatment: From catalyst development to reactor design. Chemical Engineering Journal, 2017, 310, 537-559.	12.7	449
38	Dynamic tank in series modeling of direct internal reforming SOFC. International Journal of Energy Research, 2017, 41, 1563-1578.	4.5	2
39	From waste Coca Cola® to activated carbons with impressive capabilities for CO_2 adsorption and supercapacitors. Carbon, 2017, 116, 490-499.	10.3	188
40	Interactions in droplet and particle system of near unity size ratio. Chemical Engineering Science, 2017, 170, 154-175.	3.8	40
41	Interaction of bubbles rising inline in quiescent liquid. Chemical Engineering Science, 2017, 166, 1-10.	3.8	40
42	Hazardous consequence dynamic simulation of LNG spill on water for ship-to-ship bunkering. Chemical Engineering Research and Design, 2017, 107, 402-413.	5.6	35
43	Bioethanol production from sodium hydroxide â€" dilute sulfuric acid pretreatment of rice husk via simultaneous saccharification and fermentation. MATEC Web of Conferences, 2017, 101, 02013.	0.2	2
44	Reverse phase HPLC method for detection and quantification of lupin seed Î³-conglutin. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2017, 1063, 123-129.	2.3	6
45	Selectivity enhancement for higher alcohol product in Fischer-Tropsch synthesis over nickel-substituted La0.9Sr0.1CoO3 perovskite catalysts. Fuel, 2017, 206, 390-400.	6.4	30
46	CFD study: Effect of pulsating flow on gasâ€"solid hydrodynamics in FCC riser. Particuology, 2017, 31, 25-34.	3.6	12
47	Hydrodynamics of macroscopic particles in slurry suspensions. Asia-Pacific Journal of Chemical Engineering, 2016, 11, 467-479.	1.5	7
48	Interaction dynamics of a spherical particle with a suspended liquid film. AICHE Journal, 2016, 62, 295-314.	3.6	15
49	CFD simulation of solidâ€"liquid stirred tanks for low to dense solid loading systems. Particuology, 2016, 29, 16-33.	3.6	58
50	On wetting characteristics of droplet on a spherical particle in film boiling regime. Chemical Engineering Science, 2016, 149, 181-203.	3.8	61
51	Synthesis and applications of porous non-silica metal oxide submicrospheres. Chemical Society Reviews, 2016, 45, 6013-6047.	38.1	147
52	Computational fluid dynamic modelling of FCC riser: A review. Chemical Engineering Research and Design, 2016, 111, 403-448.	5.6	49
53	Planar SOFC system modelling and simulation including a 3D stack module. International Journal of Hydrogen Energy, 2016, 41, 2919-2930.	7.1	38
54	Structure and activity of strontium substituted LaCoO3 perovskite catalysts for syngas conversion. Journal of Molecular Catalysis A, 2016, 416, 96-104.	4.8	53

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55	Bubbles in viscous liquids: Time dependent behaviour and wake characteristics. Chemical Engineering Science, 2016, 144, 298-309.	3.8	41
56	A case study: Application of energy and exergy analysis for enhancing the process efficiency of a three stage propane pre-cooling cycle of the cascade LNG process. Journal of Natural Gas Science and Engineering, 2016, 29, 125-133.	4.4	46
57	CFD Modelling of Flow and Solids Distribution in Carbon-in-Leach Tanks. Metals, 2015, 5, 1997-2020.	2.3	2
58	Synthesis of $CaCO_3$@C yolk–shell particles for CO_2 adsorption. RSC Advances, 2015, 5, 24872-24876.	3.6	17
59	Biomass pyrolysis—A review of modelling, process parameters and catalytic studies. Renewable and Sustainable Energy Reviews, 2015, 50, 1081-1096.	16.4	482
60	Dynamic simulation of hazard analysis of radiations from LNG pool fire. Journal of Loss Prevention in the Process Industries, 2015, 35, 200-210.	3.3	29
61	Collision behaviour of a smaller particle into a larger stationary droplet. Advanced Powder Technology, 2015, 26, 280-295.	4.1	41
62	Comparison of vaporization models for feed droplet in fluid catalytic cracking risers. Chemical Engineering Research and Design, 2015, 101, 82-97.	5.6	16
63	Solid oxide fuel cell reactor analysis and optimisation through a novel multi-scale modelling strategy. Computers and Chemical Engineering, 2015, 78, 10-23.	3.8	18
64	Process modelling of biomass conversion to biofuels with combined heat and power. Bioresource Technology, 2015, 198, 309-315.	9.6	13
65	Reply to Comment on "Influence of Microwaves on the Water Surface Tension". Langmuir, 2015, 31, 10933-10934.	3.5	1
66	Modeling and optimization of Carbon in leach (CIL) circuit for gold recovery. Minerals Engineering, 2015, 83, 136-148.	4.3	7
67	Sustainable synthesis of highly efficient sunlight-driven Ag embedded AgCl photocatalysts. RSC Advances, 2015, 5, 80488-80495.	3.6	15
68	Multi-fluid reactive modeling of fluidized bed pyrolysis process. Chemical Engineering Science, 2015, 123, 311-321.	3.8	57
69	Influence of jet–jet interaction on droplet size and jet instability in immiscible liquid–liquid system. Chemical Engineering Science, 2015, 123, 247-254.	3.8	9
70	Evaporation of a droplet on a heated spherical particle. Chemical Engineering Journal, 2015, 278, 309-319.	12.7	28
71	Effect of closure models on Eulerian–Eulerian gas–solid flow predictions in riser. Powder Technology, 2015, 269, 247-258.	4.2	35
72	The influence of corrosion inhibitors on hydrate formation temperature along the subsea natural gas pipelines. Journal of Petroleum Science and Engineering, 2014, 120, 239-252.	4.2	35

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73	Convection and surface tension profiles for aqueous droplet under microwave radiation. , 2014, , .		1
74	In-situ observation of convection in droplet under microwave radiation by PIV. , 2014, , .		1
75	Highly Stable External Short-Circuit-Assisted Oxygen Ionic Transport Membrane Reactor for Carbon Dioxide Reduction Coupled with Methane Partial Oxidation. Energy & Fuels, 2014, 28, 349-355.	5.1	19
76	Verification of EMMS formulation using lattice Boltzmann simulations. Powder Technology, 2014, 257, 30-39.	4.2	10
77	Organicâ€"inorganic hybrid hierarchical aluminum phenylphosphonate microspheres. Journal of Colloid and Interface Science, 2014, 427, 35-41.	9.4	16
78	Analysis of available data from liquefied natural gas rollover incidents to determine critical stability ratios. AICHE Journal, 2014, 60, 362-374.	3.6	20
79	CFD simulation of a pilot scale slurry photocatalytic reactor and design of multiple-lamp reactors. Chemical Engineering Science, 2014, 111, 266-277.	3.8	40
80	Simultaneous estimation of states and inputs in a planar solid oxide fuel cell using nonlinear adaptive observer design. Journal of Power Sources, 2014, 248, 1218-1233.	7.8	20
81	Computational fluid dynamics simulation of LNG pool fire radiation for hazard analysis. Journal of Loss Prevention in the Process Industries, 2014, 29, 92-102.	3.3	49
82	A phenomenological model of the mechanisms of lignocellulosic biomass pyrolysis processes. Computers and Chemical Engineering, 2014, 60, 231-241.	3.8	40
83	Experimental Study on Feasibility of H_2 and N_2 as Hydrate Inhibitors in Natural Gas Pipelines. Journal of Chemical & Engineering Data, 2014, 59, 3756-3766.	1.9	10
84	Use of Pinch Concept To Optimize the Total Water Regeneration Network. Industrial & Engineering Chemistry Research, 2014, 53, 3222-3235.	3.7	19
85	Influence of Microwaves on the Water Surface Tension. Langmuir, 2014, 30, 9875-9879.	3.5	37
86	Effects of broth composition and light condition on antimicrobial susceptibility testing of ionic silver. Journal of Microbiological Methods, 2014, 105, 42-46.	1.6	13
87	Kafirin adsorption on ion-exchange resins: Isotherm and kinetic studies. Journal of Chromatography A, 2014, 1356, 105-116.	3.7	18
88	Synthesis of micro and nano-sized calcium carbonate particles and their applications. Journal of Materials Chemistry A, 2014, 2, 14270-14288.	10.3	295
89	Modelling of the interaction between a falling n-heptane droplet and hot solid surface. Chemical Engineering Science, 2014, 116, 23-37.	3.8	7
90	CFD modeling of mixing/segregation behavior of biomass and biochar particles in a bubbling fluidized bed. Chemical Engineering Science, 2014, 106, 264-274.	3.8	47

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91	Lamp emission and quartz sleeve modelling in slurry photocatalytic reactors. Chemical Engineering Science, 2014, 111, 34-40.	3.8	22
92	Hydrodynamics of a rectangular liquid JET in an immiscible liquid–liquid system. Canadian Journal of Chemical Engineering, 2013, 91, 122-126.	1.7	1
93	Some aspects of photocatalytic reactor modeling using computational fluid dynamics. Chemical Engineering Science, 2013, 101, 764-784.	3.8	91
94	Effect of a cluster on gas–solid drag from lattice Boltzmann simulations. Chemical Engineering Science, 2013, 102, 365-372.	3.8	33
95	Modelling and numerical simulation of liquid–solid circulating fluidized bed system for protein purification. Chemical Engineering Research and Design, 2013, 91, 1660-1673.	5.6	6
96	Targeting water utilities for the threshold problem without waste discharge. Chemical Engineering Research and Design, 2013, 91, 2569-2578.	5.6	8
97	A review of greywater characteristics and treatment processes. Water Science and Technology, 2013, 67, 1403-1424.	2.5	175
98	Light intensity distribution in multi-lamp photocatalytic reactors. Chemical Engineering Science, 2013, 93, 11-21.	3.8	20
99	Computational fluid dynamics analysis of liquefied natural gas dispersion for risk assessment strategies. Journal of Loss Prevention in the Process Industries, 2013, 26, 117-128.	3.3	50
100	Droplet impact dynamics on a spherical particle. Chemical Engineering Science, 2013, 100, 105-119.	3.8	122
101	Hydrodynamic Study of Fluid Catalytic Cracker Unit Stripper. Industrial & Engineering Chemistry Research, 2013, 52, 4660-4671.	3.7	10
102	Hollow micro/nanomaterials as nanoreactors for photocatalysis. APL Materials, 2013, 1, .	5.1	24
103	Photocatalytic Treatment of Shower Water Using a Pilot Scale Reactor. International Journal of Photoenergy, 2012, 2012, 1-7.	2.5	17
104	Multi-Scale Modelling of Biomass Pyrolysis Processes. Computer Aided Chemical Engineering, 2012, 30, 1133-1137.	0.5	0
105	CFD simulation of solid–liquid stirred tanks. Advanced Powder Technology, 2012, 23, 445-453.	4.1	99
106	Effect of Inlet Boundary Conditions on Computational Fluid Dynamics (CFD) Simulations of Gas–Solid Flows in Risers. Industrial & Engineering Chemistry Research, 2012, 51, 1721-1728.	3.7	19
107	Simulation and Analysis of Carbon-in-Leach (CIL) Circuits. Computer Aided Chemical Engineering, 2012, 31, 1206-1210.	0.5	0
108	Particle deposition in natural gas pipelines using computational fluid dynamics modelling. Asia-Pacific Journal of Chemical Engineering, 2012, 7, 841-847.	1.5	1

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109	Extractive distillation for CO2–ethane azeotrope separation. Chemical Engineering and Processing: Process Intensification, 2012, 52, 155-161.	3.6	38
110	Hydrodynamics of a Fluid Catalytic Cracking Stripper Using Î³-ray Densitometry. Industrial & Engineering Chemistry Research, 2011, 50, 5933-5941.	3.7	12
111	The effects of fluid viscoelasticity on the settling behaviour of horizontally aligned spheres. Chemical Engineering Science, 2011, 66, 5822-5831.	3.8	14
112	A new fluid model for particles settling in a viscoplastic fluid. Chemical Engineering Science, 2011, 66, 729-739.	3.8	15
113	Simulations of photodegradation of toluene and formaldehyde in a monolith reactor using computational fluid dynamics. AICHE Journal, 2011, 57, 724-734.	3.6	29
114	Hydrodynamics of an FCC riser using energy minimization multiscale drag model. Chemical Engineering Journal, 2011, 168, 812-821.	12.7	59
115	Simulation of gas–solid flows in riser using energy minimization multiscale model: Effect of cluster diameter correlation. Chemical Engineering Science, 2011, 66, 3291-3300.	3.8	37
116	Potential Impacts and Modelling of the Heat Loss Due to Copper Chelation in Natural Gas Processing and Transport. Computer Aided Chemical Engineering, 2011, 29, 1648-1652.	0.5	0
117	Hydrodynamic investigation of bubble–column reactors: effect of column configuration. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 626-636.	1.5	0
118	Gas–solid flow hydrodynamics of an industrial scale catalyst lift engager. Chemical Engineering Journal, 2010, 159, 138-148.	12.7	5
119	Computational fluid dynamics modelling and optimal configuring of a channelled optical fibre photoreactor. Chemical Engineering Science, 2010, 65, 5029-5040.	3.8	10
120	A NOVEL SPINNING DISC CONTINUOUS STIR TANK AND SETTLER REACTOR (SDCSTR) MODEL FOR CONTINUOUS SYNTHESIS OF TITANIA: A PHENOMENOLOGICAL MODEL. Chemical Engineering Communications, 2010, 198, 73-84.	2.6	4
121	CFD modelling for a TiO2-coated glass-bead photoreactor irradiated by optical fibres: Photocatalytic degradation of oxalic acid. Chemical Engineering Science, 2009, 64, 1695-1706.	3.8	54
122	Treatment of winery wastewater by UV-A radiation. International Journal of Environment and Waste Management, 2009, 3, 278.	0.3	1
123	Guest editorial: computational fluid dynamics. Asia-Pacific Journal of Chemical Engineering, 2008, 3, 95-96.	1.5	0
124	Light intensity distribution in heterogenous photocatalytic reactors. Asia-Pacific Journal of Chemical Engineering, 2008, 3, 171-201.	1.5	118
125	CFD Simulations for Continuous Flow of Bubbles through Gas-Liquid Columns: Application of VOF Method. Chemical Product and Process Modeling, 2007, 2, .	0.9	20
126	Dynamic Simulation of Reactive Batch Distillation Column for Ethyl Acetate Synthesis. Chemical Product and Process Modeling, 2007, 2, .	0.9	4

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127	Three-Dimensional Hydrodynamics and Reaction Kinetics Analysis in FCC Riser Reactors. Chemical Product and Process Modeling, 2007, 2, .	0.9	3
128	Simulations of Bubble Column Reactors UsingÂaÂVolume of Fluid Approach: Effect ofÂAirÂDistributor. Canadian Journal of Chemical Engineering, 2007, 85, 290-301.	1.7	13
129	Two-Fluid Eulerian Simulation of Bubble Column Reactors with Distributors. Journal of Chemical Engineering of Japan, 2006, 39, 831-841.	0.6	26
130	Investigation of wear pattern in a complex coal pulveriser using CFD modelling. Fuel Processing Technology, 2006, 87, 687-694.	7.2	12
131	Modern Trends in CFD Simulations: Application to GTL Technology. Chemical Product and Process Modeling, 2006, 1, .	0.9	8
132	Steady-State Simulation of Hybrid Nickel Leaching Circuit Using Syscad. Chemical Product and Process Modeling, 2006, 1, .	0.9	2
133	Multiphase flow simulation of a simplified coal pulveriser. Fuel Processing Technology, 2005, 86, 1195-1205.	7.2	24
134	Light Intensity Distribution in a Dual-Lamp Photoreactor. International Journal of Chemical Reactor Engineering, 2005, 3, .	1.1	10
135	Light intensity distribution in a photocatalytic reactor using finite volume. AICHE Journal, 2004, 50, 1273-1288.	3.6	57
136	Modeling of absorption of NO2 with chemical reaction in a falling raindrop. Korean Journal of Chemical Engineering, 2003, 20, 328-333.	2.7	5
137	Modeling of a non-isothermal FCC riser. Chemical Engineering Journal, 2003, 92, 101-109.	12.7	15
138	Computational fluid dynamic (CFD) simulation of a pilot-scale annular bubble column photocatalytic reactor. Chemical Engineering Science, 2003, 58, 859-865.	3.8	71
139	Photocausticization of spent Bayer liquor: a pilot-scale study. Journal of Environmental Management, 2003, 7, 411-420.	1.7	7
140	A New Simplified Model for Light Scattering in Photocatalytic Reactors. Industrial & Engineering Chemistry Research, 2003, 42, 26-36.	3.7	17
141	Sensitivity analysis of rate constants of Weekman's riser kinetics and evaluation of heat of cracking using CATCRAK. Journal of Molecular Catalysis A, 2002, 181, 263-274.	4.8	10
142	Artificial neural network modeling of a multiphase photodegradation system. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 149, 139-146.	3.9	108
143	Continuous Process for Photodegradation of Industrial Bayer Liquor. Industrial & Engineering Chemistry Research, 2001, 40, 5120-5125.	3.7	16
144	Particle residence time distribution (RTD) in three-phase annular bubble column reactor. Chemical Engineering Science, 2001, 56, 6063-6071.	3.8	19