Vishnu K Pareek

List of Publications by Year in descending order

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144 papers 4,991 citations

36 h-index 65 g-index

149 all docs 149 docs citations

149 times ranked

6007 citing authors

#	Article	IF	CITATIONS
1	Biomass pyrolysis—A review of modelling, process parameters and catalytic studies. Renewable and Sustainable Energy Reviews, 2015, 50, 1081-1096.	16.4	482
2	A review on photocatalysis for air treatment: From catalyst development to reactor design. Chemical Engineering Journal, 2017, 310, 537-559.	12.7	449
3	Synthesis of micro and nano-sized calcium carbonate particles and their applications. Journal of Materials Chemistry A, 2014, 2, 14270-14288.	10.3	295
4	From waste Coca Cola \hat{A}^{\otimes} to activated carbons with impressive capabilities for CO2 adsorption and supercapacitors. Carbon, 2017, 116, 490-499.	10.3	188
5	A review on biomass pyrolysis models: Kinetic, network and mechanistic models. Biomass and Bioenergy, 2019, 123, 104-122.	5.7	183
6	A review of greywater characteristics and treatment processes. Water Science and Technology, 2013, 67, 1403-1424.	2.5	175
7	Synthesis and applications of porous non-silica metal oxide submicrospheres. Chemical Society Reviews, 2016, 45, 6013-6047.	38.1	147
8	Droplet impact dynamics on a spherical particle. Chemical Engineering Science, 2013, 100, 105-119.	3.8	122
9	Light intensity distribution in heterogenous photocatalytic reactors. Asia-Pacific Journal of Chemical Engineering, 2008, 3, 171-201.	1.5	118
10	Artificial neural network modeling of a multiphase photodegradation system. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 149, 139-146.	3.9	108
11	CFD simulation of solid–liquid stirred tanks. Advanced Powder Technology, 2012, 23, 445-453.	4.1	99
12	Some aspects of photocatalytic reactor modeling using computational fluid dynamics. Chemical Engineering Science, 2013, 101, 764-784.	3.8	91
13	Computational fluid dynamic (CFD) simulation of a pilot-scale annular bubble column photocatalytic reactor. Chemical Engineering Science, 2003, 58, 859-865.	3.8	71
14	On wetting characteristics of droplet on a spherical particle in film boiling regime. Chemical Engineering Science, 2016, 149, 181-203.	3.8	61
15	Hydrodynamics of an FCC riser using energy minimization multiscale drag model. Chemical Engineering Journal, 2011, 168, 812-821.	12.7	59
16	CFD simulation of solid–liquid stirred tanks for low to dense solid loading systems. Particuology, 2016, 29, 16-33.	3.6	58
17	Light intensity distribution in a photocatalytic reactor using finite volume. AICHE Journal, 2004, 50, 1273-1288.	3.6	57
18	Multi-fluid reactive modeling of fluidized bed pyrolysis process. Chemical Engineering Science, 2015, 123, 311-321.	3.8	57

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19	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
20	Structure and activity of strontium substituted LaCoO3 perovskite catalysts for syngas conversion. Journal of Molecular Catalysis A, 2016, 416, 96-104.	4.8	53
21	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
22	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
23	Computational fluid dynamic modelling of FCC riser: A review. Chemical Engineering Research and Design, 2016, 111, 403-448.	5.6	49
24	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
25	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
26	Bubble generated turbulence and direct numerical simulations. Chemical Engineering Science, 2017, 157, 26-75.	3.8	45
27	Collision behaviour of a smaller particle into a larger stationary droplet. Advanced Powder Technology, 2015, 26, 280-295.	4.1	41
28	Bubbles in viscous liquids: Time dependent behaviour and wake characteristics. Chemical Engineering Science, 2016, 144, 298-309.	3.8	41
29	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
30	A phenomenological model of the mechanisms of lignocellulosic biomass pyrolysis processes. Computers and Chemical Engineering, 2014, 60, 231-241.	3.8	40
31	Interactions in droplet and particle system of near unity size ratio. Chemical Engineering Science, 2017, 170, 154-175.	3.8	40
32	Interaction of bubbles rising inline in quiescent liquid. Chemical Engineering Science, 2017, 166, 1-10.	3.8	40
33	Extractive distillation for CO2–ethane azeotrope separation. Chemical Engineering and Processing: Process Intensification, 2012, 52, 155-161.	3.6	38
34	Planar SOFC system modelling and simulation including a 3D stack module. International Journal of Hydrogen Energy, 2016, 41, 2919-2930.	7.1	38
35	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
36	Influence of Microwaves on the Water Surface Tension. Langmuir, 2014, 30, 9875-9879.	3.5	37

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37	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
38	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
39	Effect of closure models on Eulerian–Eulerian gas–solid flow predictions in riser. Powder Technology, 2015, 269, 247-258.	4.2	35
40	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
41	Effect of a cluster on gas–solid drag from lattice Boltzmann simulations. Chemical Engineering Science, 2013, 102, 365-372.	3.8	33
42	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
43	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
44	Simulations of photodegradation of toluene and formaldehyde in a monolith reactor using computational fluid dynamics. AICHE Journal, 2011, 57, 724-734.	3.6	29
45	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
46	Dynamic study of frost formation on cryogenic surface. International Journal of Heat and Mass Transfer, 2020, 150, 119372.	4.8	29
47	Evaporation of a droplet on a heated spherical particle. Chemical Engineering Journal, 2015, 278, 309-319.	12.7	28
48	Two-Fluid Eulerian Simulation of Bubble Column Reactors with Distributors. Journal of Chemical Engineering of Japan, 2006, 39, 831-841.	0.6	26
49	Perovskite-derived trimetallic Co-Ni-Cu catalyst for higher alcohol synthesis from syngas. Fuel Processing Technology, 2019, 193, 141-148.	7.2	25
50	Multiphase flow simulation of a simplified coal pulveriser. Fuel Processing Technology, 2005, 86, 1195-1205.	7.2	24
51	Hollow micro/nanomaterials as nanoreactors for photocatalysis. APL Materials, 2013, 1, .	5.1	24
52	Lamp emission and quartz sleeve modelling in slurry photocatalytic reactors. Chemical Engineering Science, 2014, 111, 34-40.	3.8	22
53	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
54	Light intensity distribution in multi-lamp photocatalytic reactors. Chemical Engineering Science, 2013, 93, 11-21.	3.8	20

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55	Analysis of available data from liquefied natural gas rollover incidents to determine critical stability ratios. AICHE Journal, 2014, 60, 362-374.	3.6	20
56	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
57	Lupin seed \hat{I}^3 -conglutin: Extraction and purification methods - A review. Trends in Food Science and Technology, 2018, 73, 1-11.	15.1	20
58	Estimation of Bubble Properties in Bubbling Fluidized Bed Using ECVT Measurements. Industrial & Engineering Chemistry Research, 2018, 57, 8319-8333.	3.7	20
59	Additively manufactured, highly-uniform flow distributor for process intensification. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107595.	3.6	20
60	Particle residence time distribution (RTD) in three-phase annular bubble column reactor. Chemical Engineering Science, 2001, 56, 6063-6071.	3.8	19
61	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
62	Highly Stable External Short-Circuit-Assisted Oxygen Ionic Transport Membrane Reactor for Carbon Dioxide Reduction Coupled with Methane Partial Oxidation. Energy & 2014, 28, 349-355.	5.1	19
63	Use of Pinch Concept To Optimize the Total Water Regeneration Network. Industrial & Engineering Chemistry Research, 2014, 53, 3222-3235.	3.7	19
64	Kafirin adsorption on ion-exchange resins: Isotherm and kinetic studies. Journal of Chromatography A, 2014, 1356, 105-116.	3.7	18
65	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
66	Modeling of Cryogenic Liquefied Natural Gas Ambient Air Vaporizers. Industrial & Engineering Chemistry Research, 2018, 57, 9281-9291.	3.7	18
67	Characteristics of energy production and dissipation around a bubble rising in water. Chemical Engineering Science, 2019, 193, 38-52.	3.8	18
68	A New Simplified Model for Light Scattering in Photocatalytic Reactors. Industrial & Engineering Chemistry Research, 2003, 42, 26-36.	3.7	17
69	Photocatalytic Treatment of Shower Water Using a Pilot Scale Reactor. International Journal of Photoenergy, 2012, 2012, 1-7.	2.5	17
70	Synthesis of CaCO ₃ @C yolk–shell particles for CO ₂ adsorption. RSC Advances, 2015, 5, 24872-24876.	3.6	17
71	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
72	Continuous Process for Photodegradation of Industrial Bayer Liquor. Industrial & Engineering Chemistry Research, 2001, 40, 5120-5125.	3.7	16

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73	Organic–inorganic hybrid hierarchical aluminum phenylphosphonate microspheres. Journal of Colloid and Interface Science, 2014, 427, 35-41.	9.4	16
74	Comparison of vaporization models for feed droplet in fluid catalytic cracking risers. Chemical Engineering Research and Design, 2015, 101, 82-97.	5 . 6	16
75	Lowering greenhouse gas (GHG) emissions: technoâ€economic analysis of biomass conversion to biofuels and valueâ€edded chemicals. , 2019, 9, 454-473.		16
76	Modeling of a non-isothermal FCC riser. Chemical Engineering Journal, 2003, 92, 101-109.	12.7	15
77	A new fluid model for particles settling in a viscoplastic fluid. Chemical Engineering Science, 2011, 66, 729-739.	3.8	15
78	Sustainable synthesis of highly efficient sunlight-driven Ag embedded AgCl photocatalysts. RSC Advances, 2015, 5, 80488-80495.	3.6	15
79	Interaction dynamics of a spherical particle with a suspended liquid film. AICHE Journal, 2016, 62, 295-314.	3. 6	15
80	Simultaneous measurements of two phases using an optical probe. Experimental and Computational Multiphase Flow, 2019, 1, 233-241.	3.9	15
81	The effects of fluid viscoelasticity on the settling behaviour of horizontally aligned spheres. Chemical Engineering Science, 2011, 66, 5822-5831.	3.8	14
82	Evaporation of a sessile binary droplet on a heated spherical particle. Experimental Thermal and Fluid Science, 2018, 99, 558-571.	2.7	14
83	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
84	Simulations of Bubble Column Reactors UsingÂaÂVolume of Fluid Approach: Effect ofÂAirÂDistributor. Canadian Journal of Chemical Engineering, 2007, 85, 290-301.	1.7	13
85	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
86	Process modelling of biomass conversion to biofuels with combined heat and power. Bioresource Technology, 2015, 198, 309-315.	9.6	13
87	Effect of baffles on performance of fluid catalytic cracking riser. Particuology, 2018, 38, 18-30.	3.6	13
88	Simulations and Optimization of a Reduced CO ₂ Emission Process for Methanol Production Using Syngas from Bi-reforming. Energy &	5.1	13
89	Investigation of wear pattern in a complex coal pulveriser using CFD modelling. Fuel Processing Technology, 2006, 87, 687-694.	7.2	12
90	Hydrodynamics of a Fluid Catalytic Cracking Stripper Using \hat{l}^3 -ray Densitometry. Industrial & Engineering Chemistry Research, 2011, 50, 5933-5941.	3.7	12

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91	CFD study: Effect of pulsating flow on gas–solid hydrodynamics in FCC riser. Particuology, 2017, 31, 25-34.	3.6	12
92	Numerical study of fog formation around ambient air vaporizers. Chemical Engineering Science, 2018, 183, 37-46.	3.8	12
93	Modelling of particle segregation in fluidized beds. Powder Technology, 2019, 353, 202-218.	4.2	12
94	Intensified isothermal reactor for methanol synthesis. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107606.	3.6	11
95	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
96	Light Intensity Distribution in a Dual-Lamp Photoreactor. International Journal of Chemical Reactor Engineering, 2005, 3, .	1.1	10
97	Computational fluid dynamics modelling and optimal configuring of a channelled optical fibre photoreactor. Chemical Engineering Science, 2010, 65, 5029-5040.	3.8	10
98	Hydrodynamic Study of Fluid Catalytic Cracker Unit Stripper. Industrial & Engineering Chemistry Research, 2013, 52, 4660-4671.	3.7	10
99	Verification of EMMS formulation using lattice Boltzmann simulations. Powder Technology, 2014, 257, 30-39.	4.2	10
100	Experimental Study on Feasibility of H ₂ and N ₂ as Hydrate Inhibitors in Natural Gas Pipelines. Journal of Chemical & Data, 2014, 59, 3756-3766.	1.9	10
101	Multiphase simulation of LNG vapour dispersion with effect of fog formation. Applied Thermal Engineering, 2020, 166, 114671.	6.0	10
102	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
103	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
104	Modern Trends in CFD Simulations: Application to GTL Technology. Chemical Product and Process Modeling, 2006, 1 , .	0.9	8
105	Targeting water utilities for the threshold problem without waste discharge. Chemical Engineering Research and Design, 2013, 91, 2569-2578.	5.6	8
106	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
107	Vortex shape and gasâ€iquid hydrodynamics in unbaffled stirred tank. Canadian Journal of Chemical Engineering, 2019, 97, 1913-1920.	1.7	8
108	Photocausticization of spent Bayer liquor: a pilot-scale study. Journal of Environmental Management, 2003, 7, 411-420.	1.7	7

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109	Modelling of the interaction between a falling n-heptane droplet and hot solid surface. Chemical Engineering Science, 2014, 116, 23-37.	3.8	7
110	Modeling and optimization of Carbon in leach (CIL) circuit for gold recovery. Minerals Engineering, 2015, 83, 136-148.	4.3	7
111	Hydrodynamics of macroscopic particles in slurry suspensions. Asia-Pacific Journal of Chemical Engineering, 2016, 11, 467-479.	1.5	7
112	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
113	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
114	Reverse phase HPLC method for detection and quantification of lupin seed \hat{l}^3 -conglutin. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2017, 1063, 123-129.	2.3	6
115	Modeling of absorption of NO2 with chemical reaction in a falling raindrop. Korean Journal of Chemical Engineering, 2003, 20, 328-333.	2.7	5
116	Gas–solid flow hydrodynamics of an industrial scale catalyst lift engager. Chemical Engineering Journal, 2010, 159, 138-148.	12.7	5
117	LODOS - Going from BIM to CFD via CAD and model abstraction. Automation in Construction, 2018, 94, 85-92.	9.8	5
118	Investigation on fog formation of LNG ambient air vaporisers. Applied Thermal Engineering, 2021, 193, 117023.	6.0	5
119	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
120	Optimized Process for Methanol Production via Bi-reforming Syngas. Industrial & Engineering Chemistry Research, 2022, 61, 5557-5567.	3.7	5
121	Dynamic Simulation of Reactive Batch Distillation Column for Ethyl Acetate Synthesis. Chemical Product and Process Modeling, 2007, 2, .	0.9	4
122	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
123	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
124	Three-Dimensional Hydrodynamics and Reaction Kinetics Analysis in FCC Riser Reactors. Chemical Product and Process Modeling, 2007, 2, .	0.9	3
125	A temperature-dependent potential model for mercury in the description of vapour-liquid equilibrium & amp; adsorption in activated carbon. Chemical Engineering Science, 2020, 215, 115453.	3.8	3
126	Fast Pyrolysis Downer Reactor: Effect of Reactor Geometry on the Hydrodynamics. Industrial & Engineering Chemistry Research, 2022, 61, 4153-4167.	3.7	3

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127	Numerical evaluation of an additively manufactured uniform fractal flow mixer. Chemical Engineering and Processing: Process Intensification, 2022, 179, 109047.	3.6	3
128	Steady-State Simulation of Hybrid Nickel Leaching Circuit Using Syscad. Chemical Product and Process Modeling, 2006, 1, .	0.9	2
129	CFD Modelling of Flow and Solids Distribution in Carbon-in-Leach Tanks. Metals, 2015, 5, 1997-2020.	2.3	2
130	Dynamic tank in series modeling of direct internal reforming SOFC. International Journal of Energy Research, 2017, 41, 1563-1578.	4.5	2
131	Bioethanol production from sodium hydroxide – dilute sulfuric acid pretreatment of rice husk via simultaneous saccharification and fermentation. MATEC Web of Conferences, 2017, 101, 02013.	0.2	2
132	Treatment of winery wastewater by UV-A radiation. International Journal of Environment and Waste Management, 2009, 3, 278.	0.3	1
133	Particle deposition in natural gas pipelines using computational fluid dynamics modelling. Asia-Pacific Journal of Chemical Engineering, 2012, 7, 841-847.	1.5	1
134	Hydrodynamics of a rectangular liquid JET in an immiscible liquid–liquid system. Canadian Journal of Chemical Engineering, 2013, 91, 122-126.	1.7	1
135	Convection and surface tension profiles for aqueous droplet under microwave radiation. , 2014, , .		1
136	In-situ observation of convection in droplet under microwave radiation by PIV., 2014,,.		1
137	Reply to Comment on "Influence of Microwaves on the Water Surface Tension― Langmuir, 2015, 31, 10933-10934.	3.5	1
138	Dynamic Simulation on Deflagration of LNG Spill. Journal of Combustion, 2019, 2019, 1-12.	1.0	1
139	Packed bed methanol reactor with flow diverters. Chemical Engineering and Processing: Process Intensification, 2022, , 108916.	3.6	1
140	Guest editorial: computational fluid dynamics. Asia-Pacific Journal of Chemical Engineering, 2008, 3, 95-96.	1.5	0
141	Hydrodynamic investigation of bubbleâ€column reactors: effect of column configuration. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 626-636.	1.5	O
142	Multi-Scale Modelling of Biomass Pyrolysis Processes. Computer Aided Chemical Engineering, 2012, 30, 1133-1137.	0.5	0
143	Simulation and Analysis of Carbon-in-Leach (CIL) Circuits. Computer Aided Chemical Engineering, 2012, 31, 1206-1210.	0.5	0
144	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