

Renzo Di Felice

List of Publications by Year in descending order

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101
papers

3,695
citations

201658

27
h-index

138468

58
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104
all docs

104
docs citations

104
times ranked

2561
citing authors

#	ARTICLE	IF	CITATIONS
1	State-of-the-art of CO ₂ capture with amino acid salt solutions. <i>Reviews in Chemical Engineering</i> , 2022, 38, 273-299.	4.4	55
2	A CFD-DEM study of monocomponent and same size binary-solid beds at incipient fluidization. <i>Powder Technology</i> , 2022, 398, 117054.	4.2	2
3	Enhancement of CO ₂ removal by promoted MDEA solution in a hollow fiber membrane contactor: A numerical and experimental study. <i>Carbon Capture Science & Technology</i> , 2022, 2, 100028.	10.4	9
4	Evaluation of the use of blast furnace slag as an additive in mortars. <i>REM: International Engineering Journal</i> , 2022, 75, 215-224.	0.4	6
5	Kinetics study of CO ₂ absorption in potassium carbonate solution promoted by diethylenetriamine. <i>Green Energy and Environment</i> , 2021, 6, 83-90.	8.7	9
6	Density, Viscosity, pH, Heat of Absorption, and CO ₂ Loading Capacity of Methyl-diethanolamine and Potassium Lysinate Blend Solutions. <i>Journal of Chemical & Engineering Data</i> , 2021, 66, 1611-1629.	1.9	15
7	AVALIAÇÃO DA INCORPORAÇÃO DE RESÍDUO DE CORTE DE MÁRMORE E GRANITO EM CONCRETO PARA PRODUÇÃO DE PISOS INTERTRAVADOS PARA PAVIMENTAÇÃO. <i>Revista Ifes Ciência</i> , 2021, 7, 01-17.	0.1	0
8	A Comparison of Ansys Fluent and MFIX in Performing CFD-DEM Simulations of a Spouted Bed. <i>Fluids</i> , 2021, 6, 382.	1.7	1
9	A Discrete Element Method Study of Solids Stress in Cylindrical Columns Using MFIX. <i>Processes</i> , 2021, 9, 60.	2.8	3
10	Piperazine and methyl-diethanolamine interrelationships in CO ₂ absorption by aqueous amine mixtures. Part II – Saturation rates of mixed reagent solutions. <i>Canadian Journal of Chemical Engineering</i> , 2020, 98, 2516-2529.	1.7	5
11	Piperazine and methyl-diethanolamine interrelationships in CO ₂ absorption by aqueous amine mixtures. Part I: Saturation rates of single reagent solutions. <i>Canadian Journal of Chemical Engineering</i> , 2019, 97, 1160-1171.	1.7	8
12	A comprehensive kinetic and thermodynamic study of CO ₂ absorption in blends of monoethanolamine and potassium lysinate: Experimental and modeling. <i>Chemical Engineering Science</i> , 2019, 206, 187-202.	3.8	24
13	Plasticization suppression and CO ₂ separation enhancement of Matrimid through homogeneous blending with a new high performance polymer. <i>Journal of Membrane Science</i> , 2019, 574, 318-324.	8.2	19
14	Potential of different additives to improve performance of potassium carbonate for CO ₂ absorption. <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 2065-2077.	2.7	8
15	Characterization and kinetics of CO ₂ absorption in potassium carbonate solution promoted by 2-methylpiperazine. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 3262-3272.	6.7	18
16	Experimental Study of CO ₂ Absorption in Potassium Carbonate Solution Promoted by Triethylenetetramine. <i>Open Chemical Engineering Journal</i> , 2018, 12, 67-79.	0.5	7
17	Selection of blended absorbents for CO ₂ capture from flue gas: CO ₂ solubility, corrosion and absorption rate. <i>International Journal of Greenhouse Gas Control</i> , 2017, 62, 61-68.	4.6	32
18	Exploring CO ₂ capture from pressurized industrial gaseous effluents in membrane contactor-based pilot plant. <i>International Journal of Greenhouse Gas Control</i> , 2017, 67, 60-70.	4.6	12

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19	Experimental and correlation study of corrosion rate, absorption rate and CO ₂ loading capacity in five blend solutions as new absorbents for CO ₂ capture. Journal of Natural Gas Science and Engineering, 2017, 45, 599-608.	4.4	15
20	Rate of CO ₂ transfer to loaded MEA solutions using a membrane contactor device. International Journal of Greenhouse Gas Control, 2016, 52, 378-386.	4.6	14
21	Special Issue Published in the Occasion of the 13th International Conference on Multiphase Flows in Industrial Plants (13th MFIP) held in Sestri Levante (Italy) from the 17th to the 19th of September 2014. International Journal of Chemical Reactor Engineering, 2015, 13, 447-447.	1.1	0
22	Prediction of the early breakthrough of a diluted H ₂ S and dry gas mixture when treated by Sulfatreat commercial sorbent. Biomass and Bioenergy, 2015, 74, 244-252.	5.7	12
23	Numerical simulation of CO ₂ diffusion and reaction into aqueous solutions of different absorbents. Korean Journal of Chemical Engineering, 2015, 32, 239-247.	2.7	5
24	Wetting of Polypropylene Membranes by Aqueous Solutions in CO ₂ Absorbing Devices. Separation Science and Technology, 2015, 50, 1860-1869.	2.5	18
25	Validation of fluid-particle interaction force relationships in binary-solid suspensions. Particuology, 2015, 23, 40-48.	3.6	3
26	Exploring the reaction conditions for Ru/C catalyzed selective hydrogenolysis of xylitol alkaline aqueous solutions to glycols in a trickle-bed reactor. Catalysis Today, 2014, 234, 100-106.	4.4	19
27	Effect of Absorbent Type and Concentration on CO ₂ Capture from a Gas Stream into a Liquid Phase. Industrial & Engineering Chemistry Research, 2013, 52, 13128-13136.	3.7	17
28	Solid Suspension by an Upflow Mixture of Fluid and Larger Particles. Advances in Mechanical Engineering, 2013, 5, 859756.	1.6	0
29	Waste Gas Biofiltration: Advances and Limitations of Current Approaches in Microbiology. Environmental Science & Technology, 2012, 46, 8542-8573.	10.0	69
30	Fluid-particle Drag Force in Binary-solid Suspensions. International Journal of Chemical Reactor Engineering, 2012, 10, .	1.1	5
31	The settling velocity of a single sphere in viscous fluid: The effect of neighboring larger spheres. Powder Technology, 2012, 217, 486-488.	4.2	3
32	The transition from the fixed to the fluidised state of binary-solid liquid beds. Chemical Engineering Science, 2010, 65, 5187-5192.	3.8	5
33	On the interaction between a fixed bed of solid material and the confining column wall: the Janssen approach. Granular Matter, 2010, 12, 49-55.	2.2	20
34	Liquid-solid suspension theory with reference to possible applications in geology. Basin Research, 2010, 22, 591-602.	2.7	13
35	Unsteady- and steady-state gas permeation through active packaging walls. Packaging Technology and Science, 2008, 21, 185-191.	2.8	5
36	Oxygen permeation in PET bottles with passive and active walls. Packaging Technology and Science, 2008, 21, 405-415.	2.8	21

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37	Percolative model of proton conductivity of Nafion® membranes. Journal of Power Sources, 2008, 178, 537-546.	7.8	17
38	CO2 removal from a gas stream by membrane contactor. Separation and Purification Technology, 2008, 59, 85-90.	7.9	71
39	Component Distribution between Light and Heavy Phases in Biodiesel Processes. Industrial & Engineering Chemistry Research, 2008, 47, 7862-7867.	3.7	39
40	Liquid suspensions of single and binary component solid particles—An overview. Particuology: Science and Technology of Particles, 2007, 5, 312-320.	0.4	11
41	On the apparent viscosity of a fluidized bed. Chemical Engineering Science, 2007, 62, 294-300.	3.8	71
42	The falling velocity of a large sphere in a suspension of smaller spheres. International Journal of Multiphase Flow, 2007, 33, 797-801.	3.4	6
43	Separation of carbon dioxide from flue gases using membrane contactors. Desalination, 2006, 200, 609-611.	8.2	25
44	Steam reforming of methane in equilibrium membrane reactors for integration in power cycles. Catalysis Today, 2006, 118, 214-222.	4.4	32
45	CFD modelling of liquid fluidized beds in slugging mode. Powder Technology, 2006, 167, 94-103.	4.2	59
46	Vapour phase oxidation of toluene in V/Al2O3—TiO2 catalytic reactors. Catalysis Today, 2005, 99, 171-177.	4.4	29
47	Liquid circulation rates in two- and three-phase external airlift reactors. Chemical Engineering Journal, 2005, 109, 49-55.	12.7	9
48	Catalytic ceramic membrane in a three-phase reactor for the competitive hydrogenation—isomerisation of methylenecyclohexane. Separation and Purification Technology, 2004, 34, 239-246.	7.9	16
49	Inorganic Membrane Reactors for the Gas Phase Partial Oxidation of Toluene. Chemical Engineering Research and Design, 2004, 82, 229-235.	5.6	10
50	Treatment of Benzene-Contaminated Airstreams in Laboratory-Scale Biofilters Packed with Raw and Sieved Sugarcane Bagasse and with Peat. Biodegradation, 2004, 15, 87-96.	3.0	30
51	Wall effects for the pressure drop in fixed beds. Chemical Engineering Science, 2004, 59, 3037-3040.	3.8	85
52	Interaction of a sphere with a suspension of other spheres. AIChE Journal, 2003, 49, 3270-3274.	3.6	8
53	Macrokinetic and quantitative microbial investigation on a bench-scale biofilter treating styrene-polluted gaseous streams. Biotechnology and Bioengineering, 2003, 83, 29-38.	3.3	22
54	The measurement of interface velocity in solid—liquid slugging fluidised beds. Experimental Thermal and Fluid Science, 2003, 28, 37-44.	2.7	1

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55	Kinetic investigations on the oxidehydrogenation of propane over vanadium supported on $\hat{\Gamma}^3$ -Al ₂ O ₃ . Chemical Engineering Journal, 2003, 94, 11-18.	12.7	36
56	Fluid Dynamic Behaviour of Two- and Three-Phase Airlift Reactors. Canadian Journal of Chemical Engineering, 2003, 81, 419-425.	1.7	3
57	Particle Residence Time and Particle Mixing in a Scaled Internal Circulating Fluidized Bed. Industrial & Engineering Chemistry Research, 2002, 41, 2637-2645.	3.7	9
58	Liquid fluidised beds in slugging mode: pressure drop and flow regime transition. Powder Technology, 2002, 123, 254-261.	4.2	6
59	Polymeric and ceramic membranes in three-phase catalytic membrane reactors for the hydrogenation of methylenecyclohexane. Desalination, 2002, 144, 411-416.	8.2	36
60	Novel scaling parameter for circulating fluidized beds. AIChE Journal, 2001, 47, 582-589.	3.6	26
61	An experimental model of biofilm detachment in liquid fluidized bed biological reactors. , 2000, 51, 713-719.		30
62	The pseudo-fluid model applied to three-phase fluidisation. Chemical Engineering Science, 2000, 55, 3899-3906.	3.8	7
63	A Study of the Catalytic Dehydrochlorination of 2-Chloropropane in Oxidizing Conditions. Industrial & Engineering Chemistry Research, 2000, 39, 2752-2760.	3.7	33
64	Estimation of viscosity of highly viscous fermentation media containing one or more solutes. Biochemical Engineering Journal, 1999, 4, 81-85.	3.6	19
65	The sedimentation velocity of dilute suspensions of nearly monosized spheres. International Journal of Multiphase Flow, 1999, 25, 559-574.	3.4	82
66	Modeling of biomass devolatilization in a fluidized bed reactor. Canadian Journal of Chemical Engineering, 1999, 77, 325-332.	1.7	33
67	The effects of temperature and viscosity on glucose diffusivity through saccharomyces cerevisiae biofilms. Canadian Journal of Chemical Engineering, 1999, 77, 618-626.	1.7	4
68	Terminal settling velocity and bed-expansion characteristics of biofilm-coated particles. Biotechnology and Bioengineering, 1999, 62, 62-70.	3.3	36
69	The applicability of the pseudo-fluid model to the settling velocity of a foreign particle in a suspension. Chemical Engineering Science, 1998, 53, 371-375.	3.8	8
70	Mixing and segregation in water fluidised-bed bioreactors. Water Research, 1997, 31, 2392-2396.	11.3	11
71	Wall effects on the sedimentation velocity of suspensions in viscous flow. AIChE Journal, 1996, 42, 927-931.	3.6	38
72	A relationship for the wall effect on the settling velocity of a sphere at any flow regime. International Journal of Multiphase Flow, 1996, 22, 527-533.	3.4	77

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73	The particle-in-a-tube analogy for a multiparticle suspension. International Journal of Multiphase Flow, 1996, 22, 515-525.	3.4	18
74	Hydrodynamics of liquid fluidisation. Chemical Engineering Science, 1995, 50, 1213-1245.	3.8	263
75	The estimation of the solid size and density in liquid fluidised-bed biological reactors. Chemical Engineering Science, 1995, 50, 1059-1062.	3.8	9
76	On the hindered settling velocity of spheres in the inertial flow regime. Chemical Engineering Science, 1995, 50, 3005-3006.	3.8	17
77	Phosphorus removal in fluidized bed biological reactor (FBBR). Water Research, 1995, 29, 2627-2634.	11.3	13
78	The voidage function for fluid-particle interaction systems. International Journal of Multiphase Flow, 1994, 20, 153-159.	3.4	1,071
79	Decompression waves in fluidized beds. International Journal of Multiphase Flow, 1993, 19, 839-874.	3.4	6
80	Slugging behaviour of fluidized beds of large particles. Powder Technology, 1992, 69, 171-175.	4.2	18
81	Dynamic similarity rules: Validity check for bubbling and slugging fluidized beds. Powder Technology, 1992, 71, 281-287.	4.2	31
82	Cold modelling studies of fluidised bed reactors. Chemical Engineering Science, 1992, 47, 2233-2238.	3.8	14
83	Segregation in the liquid fluidisation of binary-solid mixtures.. Journal of Chemical Engineering of Japan, 1991, 24, 535-538.	0.6	3
84	The interaction of particles with a fluidâ€™particle pseudoâ€™fluid. Chemical Engineering Science, 1991, 46, 1873-1877.	3.8	32
85	Added mass effects in fluidized beds: application of the Geurstâ€™Wallis analysis of inertial coupling in two-phase flow. Chemical Engineering Science, 1990, 45, 1561-1565.	3.8	16
86	Scaling relationships for fluidisation: the generalised particle bed model. Chemical Engineering Science, 1990, 45, 1647-1651.	3.8	29
87	STEADY-STATE EXPANSION CHARACTERISTICS OF MONOSIZE SPHERES FLUIDISED BY LIQUIDS. Chemical Engineering Communications, 1989, 79, 131-140.	2.6	21
88	The pressure field in an unsteady-state fluidized bed. AIChE Journal, 1989, 35, 1921-1926.	3.6	25
89	The experimental determination of one-dimensional wave velocities in liquid fluidized beds. Chemical Engineering Science, 1989, 44, 101-107.	3.8	26
90	The experimental determination of the interaction force on spheres submerged in liquid fluidized beds. Chemical Engineering and Processing: Process Intensification, 1989, 25, 27-34.	3.6	17

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91	A circulating liquid fluidised bed. Chemical Engineering Science, 1988, 43, 2901-2903.	3.8	4
92	On the inversion of binary-solid liquid fluidised beds. Chemical Engineering Science, 1988, 43, 979-981.	3.8	21
93	Fluidization quality: A criterion for indeterminate stability. The Chemical Engineering Journal, 1988, 37, 25-33.	0.3	17
94	On the minimum bubbling voidage and the Geldart classification for gas-fluidised beds. Powder Technology, 1988, 56, 21-29.	4.2	36
95	Measurement of particle concentration by sampling from liquid fluidized beds. Industrial & Engineering Chemistry Research, 1987, 26, 1719-1721.	3.7	3
96	Mixing and segregation in binary-solid liquid fluidised beds. Chemical Engineering Science, 1987, 42, 639-652.	3.8	39
97	An experimental study of the expansion characteristics of gas fluidized beds of fine catalysts. Chemical Engineering and Processing: Process Intensification, 1987, 22, 69-78.	3.6	25
98	A predictive model for the equilibrium composition and inversion of binary-solid liquid fluidized beds. Chemical Engineering Science, 1986, 41, 379-387.	3.8	100
99	Generalized friction factor and drag coefficient correlations for fluid-particle interactions. Chemical Engineering Science, 1985, 40, 1817-1823.	3.8	269
100	Heat transfer in turbulent flow on a horizontal tube falling film evaporator. a theoretical approach. Desalination, 1984, 51, 325-333.	8.2	15
101	Kinetics study of CO ₂ absorption into methyl-diethanolamine, potassium lysinate, and their blends in aqueous solution. International Journal of Chemical Kinetics, 0, , .	1.6	0