Jan Degreve

List of Publications by Year in Descending Order

88 papers	6,358 citations	32 h-index	79 g-index
89 ext. papers	7,115 ext. citations	7.4 avg, IF	5.89 L-index

#	Paper	IF	Citations
88	Thermo-chemical water splitting: Selection of priority reversible redox reactions by multi-attribute decision making. *Renewable Energy*, **2021**, 170, 800-810	8.1	7
87	A theoretical model for the prediction of the minimum ignition energy of dust clouds. *Journal of Loss Prevention in the Process Industries*, **2021**, 73, 104594	3.5	1
86	How Photocatalyst Dosage and Ultrasound Application Influence the Photocatalytic Degradation Rate of Phenol in Water: Elucidating the Mechanisms Behind. *Water (Switzerland)*, **2020**, 12, 1672	3	5
85	Advances in ozonation and biodegradation processes to enhance chlorophenol abatement in multisubstrate wastewaters: a review. *Environmental Science: Water Research and Technology*, **2019**, 5, 444-481	4.2	29
84	The Ultrafast and Continuous Fabrication of a Polydimethylsiloxane Membrane by Ultraviolet-Induced Polymerization. *Angewandte Chemie - International Edition*, **2019**, 58, 17175-17179	16.4	31
83	A model for the minimum ignition energy of dust clouds. *Chemical Engineering Research and Design*, **2019**, 121, 43-49	5.5	18
82	An energy-friendly alternative in the large-scale production of soybean oil. *Journal of Environmental Management*, **2019**, 230, 234-244	7.9	8
81	Conceptual model-based design and environmental evaluation of waste solvent technologies: Application to the separation of the mixture acetone-water. *Separation Science and Technology*, **2018**, 53, 1791-1810	2.5	6
80	Energy analysis of a particle suspension solar combined cycle power plant. *Energy Conversion and Management*, **2018**, 163, 292-303	10.6	39
79	A pilot-scale coupling of ozonation and biodegradation of 2,4-dichlorophenol-containing wastewater: The effect of biomass acclimation towards chlorophenol and intermediate ozonation products. *Journal of Cleaner Production*, **2017**, 161, 1432-1441	10.3	26
78	Comparing glow discharge plasma and ultrasound treatment for improving aerobic respiration of activated sludge. *Water Research*, **2017**, 122, 207-215	12.5	10
77	Process safety education and training academic education as a foundation for other process safety initiatives on education. *Process Safety Progress*, **2017**, 36, 414-421	1	4
76	Use of Particle Heat Carriers in the Stirling Engine Concept. *Energy Technology*, **2016**, 4, 401-408	3.5	12
75	Retrofitting of extractive distillation columns with high flux, low separation factor membranes: A way to reduce the energy demand?. *Chemical Engineering Research and Design*, **2016**, 109, 127-140	5.5	18
74	Purification of biodiesel using a membrane contactor: Liquid⬚quid extraction. *Fuel Processing Technology*, **2016**, 142, 352-360	7.2	24
73	Comparison between exergy and energy analysis for biodiesel production. *Energy*, **2016**, 98, 135-145	7.9	19
72	Thermal energy storage: Recent developments and practical aspects. *Progress in Energy and Combustion Science*, **2016**, 53, 1-40	33.6	417

71	Particle circulation loops in solar energy capture and storage: Gas-Solid flow and heat transfer considerations. *Applied Energy*, **2016**, 161, 206-224	10.7	58
70	Powder attrition in gas fluidized beds. *Powder Technology*, **2016**, 287, 1-11	5.2	33
69	Thermochemical Energy Storage for Power Generation on Demand. *Energy Technology*, **2016**, 4, 341-352	3.5	19
68	Volume-of-fluid simulations of bubble dynamics in a vertical Hele-Shaw cell. *Physics of Fluids*, **2016**, 28, 053304	4.4	18
67	The effect of ozonation on the toxicity and biodegradability of 2,4-dichlorophenol-containing wastewater. *Chemical Engineering Journal*, **2015**, 280, 728-736	14.7	58
66	Operation Diagram of Circulating Fluidized Beds (CFBs). *Procedia Engineering*, **2015**, 102, 1092-1103		18
65	Thermo-mechanical analysis of copper-encapsulated NaNO3-KNO3. *Chemical Engineering Research and Design*, **2015**, 93, 224-231	5.5	24
64	The Voidage in a CFB Riser as Function of Solids Flux and Gas Velocity. *Procedia Engineering*, **2015**, 102, 1112-1122		17
63	Pd-catalyzed decarboxylation of glutamic acid and pyroglutamic acid to bio-based 2-pyrrolidone. *Green Chemistry*, **2015**, 17, 2263-2270	10	38
62	A cascaded pervaporation process for dehydration of acetic acid. *Chemical Engineering Science*, **2014**, 105, 208-212	4.4	13
61	Comparing the influence of low power ultrasonic and microwave pre-treatments on the solubilisation and semi-continuous anaerobic digestion of waste activated sludge. *Bioresource Technology*, **2014**, 171, 44-9	11	101
60	Review of old chemistry and new catalytic advances in the on-purpose synthesis of butadiene. *Chemical Society Reviews*, **2014**, 43, 7917-53	58.5	314
59	Latent heat storage with tubular-encapsulated phase change materials (PCMs). *Energy*, **2014**, 76, 66-72	7.9	84
58	The design of cyclonic pre-heaters in suspension cement kilns. *International Journal of Sustainable Engineering*, **2014**, 7, 307-312	3.1	12
57	Choking Affects the Operation Diagram of a CFB Riser. *Journal of Powder Technology*, **2014**, 2014, 1-6		3
56	Photovoltaics: reviewing the European Feed-in-Tariffs and changing PV efficiencies and costs. *Scientific World Journal, The*, **2014**, 2014, 404913	2.2	12
55	Wall-to-Bed Heat Transfer at Minimum Gas-Solid Fluidization. *Journal of Powder Technology*, **2014**, 2014, 1-8		3
54	Experimental and numerical study of buoyancy-driven single bubble dynamics in a vertical Hele-Shaw cell. *Physics of Fluids*, **2014**, 26, 123303	4.4	22

#	Reference	IF	Citations
53	The convection heat transfer coefficient in a Circulating Fluidized Bed (CFB). *Advanced Powder Technology*, **2014**, 25, 710-715	4.6	24
52	Concentrated solar power plants: Review and design methodology. *Renewable and Sustainable Energy Reviews*, **2013**, 22, 466-481	16.2	630
51	Investigation of design parameters in ultrasound reactors with confined channels. *Ultrasonics Sonochemistry*, **2013**, 20, 1345-52	8.9	23
50	COD and AOX Removal and Biodegradability Assessment for Fenton and O3/UV Oxidation Processes: A Case Study from a Graphical Industry Wastewater. *Ozone: Science and Engineering*, **2013**, 35, 16-21	2.4	9
49	Performance of molten salt solar power towers in Chile. *Journal of Renewable and Sustainable Energy*, **2013**, 5, 053142	2.5	22
48	Circulating fluidized bed heat recovery/storage and its potential to use coated phase-change-material (PCM) particles. *Applied Energy*, **2013**, 109, 505-513	10.7	49
47	Selective Hydroalkoxylation of 1-Hexene with 1-Propanol and 1-Butanol over Zeolite Beta Catalyst. *ChemCatChem*, **2013**, 5, 576-581	5.2	9
46	Modeling and geometry optimization of photochemical reactors: Single- and multi-lamp reactors for UV/H2O2 AOP systems. *Chemical Engineering Science*, **2013**, 96, 174-189	4.4	10
45	Separation of methanol/-butyl acetate mixtures by pervaporation: Potential of 10 commercial membranes. *Journal of Membrane Science*, **2013**, 429, 1-12	9.6	72
44	Mathematical modelling of anaerobic digestion of biomass and waste: Power and limitations. *Progress in Energy and Combustion Science*, **2013**, 39, 383-402	33.6	116
43	Kinetic Study and Scaleup of the Oxidation of Nanofiltration Retentates by O3. *Industrial & Engineering Chemistry Research*, **2012**, 51, 7056-7066	3.9	5
42	Effects of ultrasonic pre-treatment on sludge characteristics and anaerobic digestion. *Water Science and Technology*, **2012**, 66, 2284-90	2.2	25
41	Evaluation of peroxide based advanced oxidation processes (AOPs) for the degradation of ibuprofen in water. *Desalination and Water Treatment*, **2012**, 50, 189-197		13
40	Considerations on the Use of Nanofiltration for Solvent Purification in the Oil Industry. *JAOCS, Journal of the American Oil Chemistsi Society*, **2012**, 89, 959-960	1.8	4
39	A reduced order rate based model for distillation in packed columns: Dynamic simulation and the differentiation index problem. *Chemical Engineering Science*, **2012**, 68, 401-412	4.4	7
38	Preparation of solvent stable polyphenylsulfone hollow fiber nanofiltration membranes. *Journal of Membrane Science*, **2011**, 384, 89-96	9.6	95
37	Anaerobic digestion in global bio-energy production: Potential and research challenges. *Renewable and Sustainable Energy Reviews*, **2011**, 15, 4295-4301	16.2	578
36	Novel polyphenylsulfone membrane for potential use in solvent nanofiltration. *Journal of Membrane Science*, **2011**, 379, 60-68	9.6	86

35	Performance of Nanofiltration Membranes for Solvent Purification in the Oil Industry. *JAOCS, Journal of the American Oil Chemistsi Society*, **2011**, 88, 1255-1261	1.8	62
34	Determination of activities in membrane processes: The UNIQUAC model expressed in mole and mass fractions. *AICHE Journal*, **2011**, 57, 1889-1896	3.6	4
33	Physicochemical characterization of solute retention in solvent resistant nanofiltration: the effect of solute size, polarity, dipole moment, and solubility parameter. *Journal of Physical Chemistry B*, **2011**, 115, 14507-17	3.4	31
32	Performance of solvent resistant nanofiltration membranes for purification of residual solvent in the pharmaceutical industry: experiments and simulation. *Green Chemistry*, **2011**, 13, 3476	10	77
31	Parameter identification and modeling of the biochemical methane potential of waste activated sludge. *Environmental Science & Technology*, **2011**, 45, 4173-8	10.3	33
30	Reply to Comment on Parameter Identification and Modeling of the Biochemical Methane Potential of Waste Activated Sludge *Environmental Science & Technology*, **2011**, 45, 7598-7599	10.3	
29	Comparison of Different Oxidation Methods for Recalcitrance Removal of Landfill Leachate. *Ozone: Science and Engineering*, **2011**, 33, 294-300	2.4	20
28	Performance of Solvent-Pretreated Polyimide Nanofiltration Membranes for Separation of Dissolved Dyes from Toluene. *Industrial & Engineering Chemistry Research*, **2010**, 49, 9330-9338	3.9	43
27	Mechanisms of solute rejection in solvent resistant nanofiltration: the effect of solvent on solute rejection. *Physical Chemistry Chemical Physics*, **2010**, 12, 13333-42	3.6	108
26	Adsorption of Pure Vapor Species on Microporous Silica Membranes and Silica Pellets. *Journal of Physical Chemistry C*, **2010**, 114, 9416-9423	3.8	4
25	Physicochemical characterization of transport in nanosized membrane structures. *ChemPhysChem*, **2010**, 11, 404-11	3.2	26
24	Pervaporation of binary water alcohol and methanol alcohol mixtures through microporous methylated silica membranes: Maxwell Stefan modeling. *Computers and Chemical Engineering*, **2010**, 34, 1775-1788	4	33
23	Comparison of pressure driven transport of ethanol/n-hexane mixtures through dense and microporous membranes. *Chemical Engineering Science*, **2009**, 64, 3914-3927	4.4	32
22	General model for prediction of solvent permeation through organic and inorganic solvent resistant nanofiltration membranes. *Journal of Membrane Science*, **2009**, 334, 43-49	9.6	81
21	Ultrasonically enhanced anaerobic digestion of waste activated sludge. *International Journal of Sustainable Engineering*, **2008**, 1, 94-104	3.1	32
20	Principles and potential of the anaerobic digestion of waste-activated sludge. *Progress in Energy and Combustion Science*, **2008**, 34, 755-781	33.6	1880
19	Simulation of a hybrid pervaporation distillation process. *Computers and Chemical Engineering*, **2008**, 32, 1135-1146	4	52
18	Transport of Binary Mixtures in Pervaporation through a Microporous Silica Membrane: Shortcomings of Fickian Models. *Separation Science and Technology*, **2007**, 42, 1-23	2.5	35

17   Peroxidation enhances the biogas production in the anaerobic digestion of biosolids. *Journal of Hazardous Materials*, **2007**, 146, 577-81   12.8   75

16   Spray-agglomeration of NPK-fertilizer in a rotating drum granulator. *Powder Technology*, **2006**, 163, 188-195   3.2   13

15   Transport of pure components in pervaporation through a microporous silica membrane. *Journal of Physical Chemistry B*, **2005**, 109, 5216-22   3.4   47

14   Pervaporation of water–alcohol mixtures and acetic acid–water mixtures. *Chemical Engineering Science*, **2005**, 60, 1583-1590   4.4   119

13   Pervaporation of Binary and Ternary Mixtures of Water with Methanol and/or Ethanol. *Separation Science and Technology*, **2005**, 39, 563-580   2.5   24

12   Quality Control in a Semi-continuous Polymer Production Process. *Quality Engineering*, **2004**, 16, 347-357   1.4   1

11   VOC–air separations using gas membranes. *Journal of Chemical Technology and Biotechnology*, **2003**, 78, 294-297   3.5   20

10   Entrained phase adsorption of PCDD/F from incinerator flue gases. *Environmental Science & Technology*, **2003**, 37, 1219-24   10.3   44

9   The interaction of solute transfer, contaminants and drop break-up in rotating disc contactors: Part I. Correlation of drop breakage probabilities. *Canadian Journal of Chemical Engineering*, **1997**, 75, 1046-1055   2.3   28

8   The Interaction of solute transfer, contaminants and dro break-up in rotating disc contactors: Part II. The coupling of the mass transfer and breakage processes via interfacial tension. *Canadian Journal of Chemical Engineering*, **1997**, 75, 1056-1066   2.3   13

7   Simulation of a slagging incineration process. *Computers and Chemical Engineering*, **1991**, 15, 297-304   4   1

6   REACTION FRONT PROPAGATION CHARACTERISTICS IN NON-CATALYTIC EXOTHERMIC GAS-SOLID SYSTEMS. *Chemical Engineering Communications*, **1990**, 92, 199-224   2.2   15

5   Study of gas-solid, heterogeneous, exothermic, noncatalytic reactions in a flow regime. *Industrial & Engineering Chemistry Research*, **1988**, 27, 513-518   3.9   9

4   MODELING OF STRONGLY EXOTHERMIC REACTION ON A SUPERCOMPUTER. *Chemical Engineering Communications*, **1987**, 58, 105-118   2.2   4

3   Modeling of exothermic solid-solid noncatalytic reactions. *Industrial & Engineering Chemistry Research*, **1987**, 26, 1424-1434   3.9   73

2   Use of 2-D-adaptive mesh in simulation of combustion front phenomena. *Computers and Chemical Engineering*, **1987**, 11, 749-755   4   15

1   Propagation of reaction fronts in exothermic heterogeneous noncatalytic systems solid-solid and solid-gas. *Chemical Engineering Science*, **1986**, 41, 877-882   4.4   6