

Jan Degreve

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Principles and potential of the anaerobic digestion of waste-activated sludge. <i>Progress in Energy and Combustion Science</i> , 2008 , 34, 755-781	33.6	1880
87	Concentrated solar power plants: Review and design methodology. <i>Renewable and Sustainable Energy Reviews</i> , 2013 , 22, 466-481	16.2	630
86	Anaerobic digestion in global bio-energy production: Potential and research challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2011 , 15, 4295-4301	16.2	578
85	Thermal energy storage: Recent developments and practical aspects. <i>Progress in Energy and Combustion Science</i> , 2016 , 53, 1-40	33.6	417
84	Review of old chemistry and new catalytic advances in the on-purpose synthesis of butadiene. <i>Chemical Society Reviews</i> , 2014 , 43, 7917-53	58.5	314
83	Pervaporation of water/alcohol mixtures and acetic acid/water mixtures. <i>Chemical Engineering Science</i> , 2005 , 60, 1583-1590	4.4	119
82	Mathematical modelling of anaerobic digestion of biomass and waste: Power and limitations. <i>Progress in Energy and Combustion Science</i> , 2013 , 39, 383-402	33.6	116
81	Mechanisms of solute rejection in solvent resistant nanofiltration: the effect of solvent on solute rejection. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 13333-42	3.6	108
80	Comparing the influence of low power ultrasonic and microwave pre-treatments on the solubilisation and semi-continuous anaerobic digestion of waste activated sludge. <i>Bioresource Technology</i> , 2014 , 171, 44-9	11	101
79	Preparation of solvent stable polyphenylsulfone hollow fiber nanofiltration membranes. <i>Journal of Membrane Science</i> , 2011 , 384, 89-96	9.6	95
78	Novel polyphenylsulfone membrane for potential use in solvent nanofiltration. <i>Journal of Membrane Science</i> , 2011 , 379, 60-68	9.6	86
77	Latent heat storage with tubular-encapsulated phase change materials (PCMs). <i>Energy</i> , 2014 , 76, 66-72	7.9	84
76	General model for prediction of solvent permeation through organic and inorganic solvent resistant nanofiltration membranes. <i>Journal of Membrane Science</i> , 2009 , 334, 43-49	9.6	81
75	Performance of solvent resistant nanofiltration membranes for purification of residual solvent in the pharmaceutical industry: experiments and simulation. <i>Green Chemistry</i> , 2011 , 13, 3476	10	77
74	Peroxidation enhances the biogas production in the anaerobic digestion of biosolids. <i>Journal of Hazardous Materials</i> , 2007 , 146, 577-81	12.8	75
73	Modeling of exothermic solid-solid noncatalytic reactions. <i>Industrial & Engineering Chemistry Research</i> , 1987 , 26, 1424-1434	3.9	73
72	Separation of methanol/n-butyl acetate mixtures by pervaporation: Potential of 10 commercial membranes. <i>Journal of Membrane Science</i> , 2013 , 429, 1-12	9.6	72

71	Performance of Nanofiltration Membranes for Solvent Purification in the Oil Industry. <i>JAOCS, Journal of the American Oil Chemists Society</i> , 2011 , 88, 1255-1261	1.8	62
70	The effect of ozonation on the toxicity and biodegradability of 2,4-dichlorophenol-containing wastewater. <i>Chemical Engineering Journal</i> , 2015 , 280, 728-736	14.7	58
69	Particle circulation loops in solar energy capture and storage: Gas-Solid flow and heat transfer considerations. <i>Applied Energy</i> , 2016 , 161, 206-224	10.7	58
68	Simulation of a hybrid pervaporation-distillation process. <i>Computers and Chemical Engineering</i> , 2008 , 32, 1135-1146	4	52
67	Circulating fluidized bed heat recovery/storage and its potential to use coated phase-change-material (PCM) particles. <i>Applied Energy</i> , 2013 , 109, 505-513	10.7	49
66	Transport of pure components in pervaporation through a microporous silica membrane. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 5216-22	3.4	47
65	Entrained phase adsorption of PCDD/F from incinerator flue gases. <i>Environmental Science & Technology</i> , 2003 , 37, 1219-24	10.3	44
64	Performance of Solvent-Pretreated Polyimide Nanofiltration Membranes for Separation of Dissolved Dyes from Toluene. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 9330-9338	3.9	43
63	Energy analysis of a particle suspension solar combined cycle power plant. <i>Energy Conversion and Management</i> , 2018 , 163, 292-303	10.6	39
62	Pd-catalyzed decarboxylation of glutamic acid and pyroglutamic acid to bio-based 2-pyrrolidone. <i>Green Chemistry</i> , 2015 , 17, 2263-2270	10	38
61	Transport of Binary Mixtures in Pervaporation through a Microporous Silica Membrane: Shortcomings of Fickian Models. <i>Separation Science and Technology</i> , 2007 , 42, 1-23	2.5	35
60	Powder attrition in gas fluidized beds. <i>Powder Technology</i> , 2016 , 287, 1-11	5.2	33
59	Parameter identification and modeling of the biochemical methane potential of waste activated sludge. <i>Environmental Science & Technology</i> , 2011 , 45, 4173-8	10.3	33
58	Pervaporation of binary water-alcohol and methanol-alcohol mixtures through microporous methylated silica membranes: Maxwell-Stefan modeling. <i>Computers and Chemical Engineering</i> , 2010 , 34, 1775-1788	4	33
57	Comparison of pressure driven transport of ethanol/n-hexane mixtures through dense and microporous membranes. <i>Chemical Engineering Science</i> , 2009 , 64, 3914-3927	4.4	32
56	Ultrasonically enhanced anaerobic digestion of waste activated sludge. <i>International Journal of Sustainable Engineering</i> , 2008 , 1, 94-104	3.1	32
55	The Ultrafast and Continuous Fabrication of a Polydimethylsiloxane Membrane by Ultraviolet-Induced Polymerization. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 17175-17179	16.4	31
54	Physicochemical characterization of solute retention in solvent resistant nanofiltration: the effect of solute size, polarity, dipole moment, and solubility parameter. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 14507-17	3.4	31

53	Advances in ozonation and biodegradation processes to enhance chlorophenol abatement in multisubstrate wastewaters: a review. <i>Environmental Science: Water Research and Technology</i> , 2019 , 5, 444-481	4.2	29
52	The interaction of solute transfer, contaminants and drop break-up in rotating disc contactors: Part I. Correlation of drop breakage probabilities. <i>Canadian Journal of Chemical Engineering</i> , 1997 , 75, 1046-1055	3.3	28
51	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. <i>Journal of Cleaner Production</i> , 2017 , 161, 1432-1441	10.3	26
50	Physicochemical characterization of transport in nanosized membrane structures. <i>ChemPhysChem</i> , 2010 , 11, 404-11	3.2	26
49	Effects of ultrasonic pre-treatment on sludge characteristics and anaerobic digestion. <i>Water Science and Technology</i> , 2012 , 66, 2284-90	2.2	25
48	Thermo-mechanical analysis of copper-encapsulated NaNO ₃ /KNO ₃ . <i>Chemical Engineering Research and Design</i> , 2015 , 93, 224-231	5.5	24
47	Purification of biodiesel using a membrane contactor: Liquid-liquid extraction. <i>Fuel Processing Technology</i> , 2016 , 142, 352-360	7.2	24
46	The convection heat transfer coefficient in a Circulating Fluidized Bed (CFB). <i>Advanced Powder Technology</i> , 2014 , 25, 710-715	4.6	24
45	Pervaporation of Binary and Ternary Mixtures of Water with Methanol and/or Ethanol. <i>Separation Science and Technology</i> , 2005 , 39, 563-580	2.5	24
44	Investigation of design parameters in ultrasound reactors with confined channels. <i>Ultrasonics Sonochemistry</i> , 2013 , 20, 1345-52	8.9	23
43	Performance of molten salt solar power towers in Chile. <i>Journal of Renewable and Sustainable Energy</i> , 2013 , 5, 053142	2.5	22
42	Experimental and numerical study of buoyancy-driven single bubble dynamics in a vertical Hele-Shaw cell. <i>Physics of Fluids</i> , 2014 , 26, 123303	4.4	22
41	Comparison of Different Oxidation Methods for Recalcitrance Removal of Landfill Leachate. <i>Ozone: Science and Engineering</i> , 2011 , 33, 294-300	2.4	20
40	VOCs separations using gas membranes. <i>Journal of Chemical Technology and Biotechnology</i> , 2003 , 78, 294-297	3.5	20
39	Comparison between exergy and energy analysis for biodiesel production. <i>Energy</i> , 2016 , 98, 135-145	7.9	19
38	Thermochemical Energy Storage for Power Generation on Demand. <i>Energy Technology</i> , 2016 , 4, 341-352	3.5	19
37	Operation Diagram of Circulating Fluidized Beds (CFBs). <i>Procedia Engineering</i> , 2015 , 102, 1092-1103		18
36	Retrofitting of extractive distillation columns with high flux, low separation factor membranes: A way to reduce the energy demand?. <i>Chemical Engineering Research and Design</i> , 2016 , 109, 127-140	5.5	18

35	Volume-of-fluid simulations of bubble dynamics in a vertical Hele-Shaw cell. <i>Physics of Fluids</i> , 2016 , 28, 053304	4.4	18
34	A model for the minimum ignition energy of dust clouds. <i>Chemical Engineering Research and Design</i> , 2019 , 121, 43-49	5.5	18
33	The Voidage in a CFB Riser as Function of Solids Flux and Gas Velocity. <i>Procedia Engineering</i> , 2015 , 102, 1112-1122		17
32	REACTION FRONT PROPAGATION CHARACTERISTICS IN NON-CATALYTIC EXOTHERMIC GAS-SOLID SYSTEMS. <i>Chemical Engineering Communications</i> , 1990 , 92, 199-224	2.2	15
31	Use of 2-D-adaptive mesh in simulation of combustion front phenomena. <i>Computers and Chemical Engineering</i> , 1987 , 11, 749-755	4	15
30	A cascaded pervaporation process for dehydration of acetic acid. <i>Chemical Engineering Science</i> , 2014 , 105, 208-212	4.4	13
29	Evaluation of peroxide based advanced oxidation processes (AOPs) for the degradation of ibuprofen in water. <i>Desalination and Water Treatment</i> , 2012 , 50, 189-197		13
28	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. <i>Canadian Journal of Chemical Engineering</i> , 1997 , 75, 1056-1066	2.3	13
27	Spray-agglomeration of NPK-fertilizer in a rotating drum granulator. <i>Powder Technology</i> , 2006 , 163, 188-195	4.5	13
26	Use of Particle Heat Carriers in the Stirling Engine Concept. <i>Energy Technology</i> , 2016 , 4, 401-408	3.5	12
25	The design of cyclonic pre-heaters in suspension cement kilns. <i>International Journal of Sustainable Engineering</i> , 2014 , 7, 307-312	3.1	12
24	Photovoltaics: reviewing the European Feed-in-Tariffs and changing PV efficiencies and costs. <i>Scientific World Journal, The</i> , 2014 , 2014, 404913	2.2	12
23	Comparing glow discharge plasma and ultrasound treatment for improving aerobic respiration of activated sludge. <i>Water Research</i> , 2017 , 122, 207-215	12.5	10
22	Modeling and geometry optimization of photochemical reactors: Single- and multi-lamp reactors for UVB/2O ₂ AOP systems. <i>Chemical Engineering Science</i> , 2013 , 96, 174-189	4.4	10
21	COD and AOX Removal and Biodegradability Assessment for Fenton and O ₃ /UV Oxidation Processes: A Case Study from a Graphical Industry Wastewater. <i>Ozone: Science and Engineering</i> , 2013 , 35, 16-21	2.4	9
20	Selective Hydroalkoxylation of 1-Hexene with 1-Propanol and 1-Butanol over Zeolite Beta Catalyst. <i>ChemCatChem</i> , 2013 , 5, 576-581	5.2	9
19	Study of gas-solid, heterogeneous, exothermic, noncatalytic reactions in a flow regime. <i>Industrial & Engineering Chemistry Research</i> , 1988 , 27, 513-518	3.9	9
18	An energy-friendly alternative in the large-scale production of soybean oil. <i>Journal of Environmental Management</i> , 2019 , 230, 234-244	7.9	8

17	A reduced order rate based model for distillation in packed columns: Dynamic simulation and the differentiation index problem. <i>Chemical Engineering Science</i> , 2012 , 68, 401-412	4.4	7
16	Thermo-chemical water splitting: Selection of priority reversible redox reactions by multi-attribute decision making. <i>Renewable Energy</i> , 2021 , 170, 800-810	8.1	7
15	Conceptual model-based design and environmental evaluation of waste solvent technologies: Application to the separation of the mixture acetone-water. <i>Separation Science and Technology</i> , 2018 , 53, 1791-1810	2.5	6
14	Propagation of reaction fronts in exothermic heterogeneous noncatalytic systems solid-solid and solid-gas. <i>Chemical Engineering Science</i> , 1986 , 41, 877-882	4.4	6
13	How Photocatalyst Dosage and Ultrasound Application Influence the Photocatalytic Degradation Rate of Phenol in Water: Elucidating the Mechanisms Behind. <i>Water (Switzerland)</i> , 2020 , 12, 1672	3	5
12	Kinetic Study and Scaleup of the Oxidation of Nanofiltration Retentates by O ₃ . <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 7056-7066	3.9	5
11	Process safety education and training academic education as a foundation for other process safety initiatives on education. <i>Process Safety Progress</i> , 2017 , 36, 414-421	1	4
10	Considerations on the Use of Nanofiltration for Solvent Purification in the Oil Industry. <i>JAOCS, Journal of the American Oil Chemists Society</i> , 2012 , 89, 959-960	1.8	4
9	Determination of activities in membrane processes: The UNIQUAC model expressed in mole and mass fractions. <i>AIChE Journal</i> , 2011 , 57, 1889-1896	3.6	4
8	Adsorption of Pure Vapor Species on Microporous Silica Membranes and Silica Pellets. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 9416-9423	3.8	4
7	MODELING OF STRONGLY EXOTHERMIC REACTION ON A SUPERCOMPUTER. <i>Chemical Engineering Communications</i> , 1987 , 58, 105-118	2.2	4
6	Choking Affects the Operation Diagram of a CFB Riser. <i>Journal of Powder Technology</i> , 2014 , 2014, 1-6		3
5	Wall-to-Bed Heat Transfer at Minimum Gas-Solid Fluidization. <i>Journal of Powder Technology</i> , 2014 , 2014, 1-8		3
4	Quality Control in a Semi-continuous Polymer Production Process. <i>Quality Engineering</i> , 2004 , 16, 347-357	1.4	1
3	Simulation of a slagging incineration process. <i>Computers and Chemical Engineering</i> , 1991 , 15, 297-304	4	1
2	A theoretical model for the prediction of the minimum ignition energy of dust clouds. <i>Journal of Loss Prevention in the Process Industries</i> , 2021 , 73, 104594	3.5	1
1	Reply to Comment on Parameter Identification and Modeling of the Biochemical Methane Potential of Waste Activated Sludge. <i>Environmental Science & Technology</i> , 2011 , 45, 7598-7599	10.3	