

Peter Heinz Pfromm

List of Publications by Year in descending order

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81
papers

4,826
citations

117571

34
h-index

95218

68
g-index

83
all docs

83
docs citations

83
times ranked

5799
citing authors

#	ARTICLE	IF	CITATIONS
1	Beyond fossil fuelâ€“driven nitrogen transformations. <i>Science</i> , 2018, 360, .	6.0	1,379
2	Bio-butanol vs. bio-ethanol: A technical and economic assessment for corn and switchgrass fermented by yeast or <i>Clostridium acetobutylicum</i> . <i>Biomass and Bioenergy</i> , 2010, 34, 515-524.	2.9	241
3	Challenges and Opportunities for Bio-oil Refining: A Review. <i>Energy & Fuels</i> , 2019, 33, 4683-4720.	2.5	240
4	Accelerated physical ageing of thin glassy polymer films: evidence from gas transport measurements. <i>Polymer</i> , 1995, 36, 2379-2387.	1.8	181
5	Chemical looping of metal nitride catalysts: low-pressure ammonia synthesis for energy storage. <i>Chemical Science</i> , 2015, 6, 3965-3974.	3.7	179
6	Towards sustainable agriculture: Fossil-free ammonia. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, .	0.8	174
7	Accelerated Physical Aging of Thin Poly[1-(trimethylsilyl)-1-propyne] Films. <i>Macromolecules</i> , 2000, 33, 3747-3751.	2.2	142
8	Solar thermochemical production of ammonia from water, air and sunlight: Thermodynamic and economic analyses. <i>Energy</i> , 2012, 42, 251-260.	4.5	119
9	Process control in cell culture technology using dielectric spectroscopy. <i>Biotechnology Advances</i> , 2011, 29, 391-401.	6.0	107
10	Chemical and spectroscopic characterization of marine dissolved organic matter isolated using coupled reverse osmosisâ€“electrodialysis. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 4215-4231.	1.6	96
11	Combining reverse osmosis and electrodialysis for more complete recovery of dissolved organic matter from seawater. <i>Separation and Purification Technology</i> , 2007, 56, 383-387.	3.9	88
12	Rational design of metal nitride redox materials for solar-driven ammonia synthesis. <i>Interface Focus</i> , 2015, 5, 20140084.	1.5	88
13	Membrane-assisted enzymatic production of galactosyl-oligosaccharides from lactose in a continuous process. <i>Journal of Membrane Science</i> , 2004, 232, 85-91.	4.1	78
14	Gas transport properties of a series of highTg polynorbornenes with aliphatic pendant groups. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998, 36, 797-803.	2.4	75
15	Coupling reverse osmosis with electrodialysis to isolate natural organic matter from fresh waters. <i>Water Research</i> , 2006, 40, 3385-3392.	5.3	75
16	Effect of water activity on the lipase catalyzed esterification of geraniol in ionic liquid [bmim]PF6. <i>Biotechnology and Bioengineering</i> , 2006, 93, 318-324.	1.7	72
17	Chromium as reactant for solar thermochemical synthesis of ammonia from steam, nitrogen, and biomass at atmospheric pressure. <i>Solar Energy</i> , 2011, 85, 2642-2654.	2.9	70
18	Gas transport through integral-asymmetric membranes: A comparison to isotropic film transport properties. <i>Journal of Applied Polymer Science</i> , 1993, 48, 2161-2171.	1.3	65

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19	Experimental evidence and theoretical analysis of physical aging in thin and thick amorphous glassy polymer films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999, 37, 2239-2251.	2.4	65
20	Sustainability of algae derived biodiesel: A mass balance approach. <i>Bioresource Technology</i> , 2011, 102, 1185-1193.	4.8	63
21	Synthesis and characterization of polyamide resins from soy-based dimer acids and different amides. <i>Journal of Applied Polymer Science</i> , 1998, 68, 305-314.	1.3	61
22	Electrodialysis for chloride removal from the chemical recovery cycle of a Kraft pulp mill. <i>Journal of Membrane Science</i> , 1998, 146, 249-261.	4.1	61
23	Effect of copolymer composition on the solubility and diffusivity of water and methanol in a series of polyether amides. <i>Journal of Applied Polymer Science</i> , 1997, 65, 1983-1993.	1.3	55
24	Partial Hydrogenation of Soybean Oil with Minimal <i>trans</i> Fat Production Using a Pt@C Decorated Polymeric Membrane Reactor. <i>JAACS, Journal of the American Oil Chemists' Society</i> , 2009, 86, 93.	0.8	55
25	Aging of thin polyimide-ceramic and polycarbonate-ceramic composite membranes. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 1921-1926.	1.8	50
26	An Ionicity Rationale to Design Solid phase Metal Nitride Reactants for Solar Ammonia Production. <i>Journal of Physical Chemistry C</i> , 2012, 116, 23243-23251.	1.5	50
27	Conformational changes and catalytic competency of hydrolases adsorbing on fumed silica nanoparticles: I. Tertiary structure. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 79, 97-104.	2.5	46
28	Capacitance spectroscopy to characterize organic fouling of electrodialysis membranes. <i>Journal of Membrane Science</i> , 1999, 162, 213-218.	4.1	44
29	Combining reverse osmosis and pulsed electrical current electrodialysis for improved recovery of dissolved organic matter from seawater. <i>Journal of Membrane Science</i> , 2008, 323, 328-336.	4.1	42
30	Lipase-catalyzed synthesis of geranyl acetate in hexane with membrane-mediated water removal. <i>Biotechnology and Bioengineering</i> , 2001, 75, 676-681.	1.7	40
31	Size-Controlled Synthesis of Iron and Iron Oxide Nanoparticles by the Rapid Inductive Heating Method. <i>ACS Omega</i> , 2020, 5, 19853-19860.	1.6	40
32	Immobilization of <i>Candida antarctica</i> Lipase B on fumed silica. <i>Process Biochemistry</i> , 2009, 44, 62-69.	1.8	37
33	Thermodynamics of metal reactants for ammonia synthesis from steam, nitrogen and biomass at atmospheric pressure. <i>AIChE Journal</i> , 2012, 58, 3203-3213.	1.8	36
34	Economic feasibility of algal biodiesel under alternative public policies. <i>Renewable Energy</i> , 2014, 67, 136-142.	4.3	36
35	Thermochemical Synthesis of Ammonia and Syngas from Natural Gas at Atmospheric Pressure. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 14014-14024.	1.8	35
36	Conformational changes and catalytic competency of hydrolases adsorbing on fumed silica nanoparticles: II. Secondary structure. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 81, 1-10.	2.5	33

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37	Fe and Ni Dopants Facilitating Ammonia Synthesis on Mn ₄ N and Mechanistic Insights from First-Principles Methods. <i>Journal of Physical Chemistry C</i> , 2018, 122, 6109-6116.	1.5	32
38	Effects of temperature and shear force on infectivity of the baculovirus <i>Autographa californica</i> M nucleopolyhedrovirus. <i>Journal of Virological Methods</i> , 2008, 153, 90-96.	1.0	26
39	Partial hydrogenation of soybean oil using metal-decorated integral-asymmetric polymer membranes: Effects of morphology and membrane properties. <i>Journal of Membrane Science</i> , 2010, 348, 99-108.	4.1	24
40	Aqueous phase hydrogenation of levulinic acid using a porous catalytic membrane reactor. <i>Catalysis Today</i> , 2016, 268, 19-28.	2.2	24
41	Immobilization of Enzymes on Fumed Silica Nanoparticles for Applications in Nonaqueous Media. <i>Methods in Molecular Biology</i> , 2011, 743, 147-160.	0.4	23
42	Enantioselective transesterification by <i>Candida antarctica</i> Lipase B immobilized on fumed silica. <i>Journal of Biotechnology</i> , 2010, 150, 80-86.	1.9	22
43	Manipulating the Geometric and Electronic Structures of Manganese Nitrides for Ammonia Synthesis. <i>ChemCatChem</i> , 2020, 12, 2233-2244.	1.8	19
44	Activation of N ₂ on Manganese Nitride-Supported Ni ₃ and Fe ₃ Clusters and Relevance to Ammonia Formation. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 6535-6542.	2.1	19
45	Electrodialysis Field Test for Selective Chloride Removal from the Chemical Recovery Cycle of a Kraft Pulp Mill. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 4761-4767.	1.8	18
46	Activation of subtilisin Carlsberg in hexane by lyophilization in the presence of fumed silica. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2005, 34, 18-24.	1.8	17
47	Chemical Looping of Manganese to Synthesize Ammonia at Atmospheric Pressure: Sodium as Promoter. <i>Chemical Engineering and Technology</i> , 2020, 43, 2126-2133.	0.9	16
48	Low Effluent Processing in the Pulp and Paper Industry: Electrodialysis for Continuous Selective Chloride Removal. <i>Separation Science and Technology</i> , 1997, 32, 2913-2926.	1.3	15
49	Concentration of the baculovirus <i>Autographa californica</i> M nucleopolyhedrovirus (AcMNPV) by ultrafiltration. <i>Desalination</i> , 2010, 250, 1125-1127.	4.0	15
50	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2002, 32, 415-424.	1.5	13
51	Development of an easily deinkable copy toner using soy-based copolyamides. <i>Journal of Applied Polymer Science</i> , 1999, 74, 1563-1570.	1.3	12
52	Purification of the baculovirus <i>Autographa californica</i> M nucleopolyhedrovirus by tangential flow ultrafiltration. <i>Desalination</i> , 2009, 245, 694-700.	4.0	12
53	Overcoming mass transfer limitations in partial hydrogenation of soybean oil using metal-decorated polymeric membranes. <i>AIChE Journal</i> , 2011, 57, 2450-2457.	1.8	12
54	Reducing the energy demand of corn-based fuel ethanol through salt extractive distillation enabled by electrodialysis. <i>AIChE Journal</i> , 2012, 58, 163-172.	1.8	12

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55	Reducing the Energy Demand of Cellulosic Ethanol through Salt Extractive Distillation Enabled by Electrodialysis. <i>Separation Science and Technology</i> , 2013, 48, 1518-1528.	1.3	12
56	Novel DyP from the basidiomycete <i>Pleurotus sapidus</i> : substrate screening and kinetics. <i>Biocatalysis</i> , 2018, 4, 1-13.	2.3	12
57	Application of dimer acid-based polyamide for xerographic toners for textiles printing. <i>Journal of Applied Polymer Science</i> , 2001, 81, 2399-2407.	1.3	10
58	Real time measurement and control of thermodynamic water activities for enzymatic catalysis in hexane. <i>Journal of Biotechnology</i> , 2005, 119, 147-154.	1.9	10
59	The Impact of Physical Aging of Amorphous Glassy Polymers on Gas Separation Membranes. , 2006, , 293-306.		10
60	Hydrolases on silica surfaces: Coverage-activity molecular property relationships revealed. <i>Process Biochemistry</i> , 2014, 49, 830-839.	1.8	10
61	Kinetic and equilibrium sorption of organic liquids and vapors in Matrimid. <i>Journal of Membrane Science</i> , 2016, 512, 29-37.	4.1	10
62	Composite catalytic tubular membranes for selective hydrogenation in three-phase systems. <i>Catalysis Today</i> , 2016, 268, 12-18.	2.2	10
63	Studies on toners for textile xerography. <i>Journal of Electrostatics</i> , 1998, 43, 249-266.	1.0	9
64	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2002, 32, 725-733.	1.5	9
65	Activating dinitrogen for chemical looping ammonia synthesis: nitridation of manganese. <i>Journal of Materials Science</i> , 2021, 56, 12584-12595.	1.7	7
66	Activating dinitrogen for chemical looping ammonia Synthesis: Mn nitride layer growth modeling. <i>Chemical Engineering Science</i> , 2022, 252, 117287.	1.9	7
67	Green ammonia production-enabled demand flexibility in agricultural community microgrids with distributed renewables. <i>Sustainable Energy, Grids and Networks</i> , 2022, 31, 100736.	2.3	7
68	Xerographic printing of textiles: Polymeric toners and their performance. <i>Journal of Applied Polymer Science</i> , 2000, 78, 2425-2434.	1.3	6
69	Adaptation of <i>Mycobacterium smegmatis</i> to an Industrial Scale Medium and Isolation of the Mycobacterial Porin MspA. <i>Open Microbiology Journal</i> , 2013, 7, 92-98.	0.2	6
70	Sorption and transport of sulfur dioxide in polysulfone. <i>Macromolecules</i> , 1993, 26, 6141-6142.	2.2	5
71	Electrodialysis for bleach effluent recycling in kraft pulp production: Simultaneous control of chloride and other non-process elements. <i>Canadian Journal of Chemical Engineering</i> , 1999, 77, 1231-1238.	0.9	5
72	Membrane permeation based sensing for dissolved water in organic micro-aqueous media. <i>Journal of Membrane Science</i> , 2004, 239, 213-217.	4.1	5

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73	Recycling Kraft Pulpung Chemicals with Molten Salt Electrolysis. Journal of the Electrochemical Society, 2002, 149, D125.	1.3	4
74	Rapid synthesis of nanocrystalline magnesium chromite and ferrite ceramics with concentrated sunlight. Thermochemica Acta, 2014, 582, 10-16.	1.2	3
75	Facile one-pot synthesis of Fe_2O_3 nanoparticles by inductive heating. Materials Advances, 2021, 2, 5616-5621.	2.6	3
76	Analysis of Atomic Force Microscopy Phase Data To Dynamically Detect Adsorbed Hydrogen under Ambient Conditions. Langmuir, 2014, 30, 11906-11912.	1.6	2
77	Effect of vapor phase ethylenediamine crosslinking of matrimid on alcohol vapor sorption and diffusion. Journal of Applied Polymer Science, 2017, 134, 44771.	1.3	2
78	Selective Removal of Methanol from Humid Air Streams Using a Water-Vapor-Purged Membrane Separator. Industrial & Engineering Chemistry Research, 2001, 40, 2685-2692.	1.8	1
79	Catalytic properties of Candida antarctica lipase B clusters solubilized in hexane. Biocatalysis and Biotransformation, 2009, 27, 152-158.	1.1	1
80	Isolation of natural organic matter from fresh waters using reverse osmosis and electrodialysis. Diqu Huaxue, 2006, 25, 268-268.	0.5	0
81	Atomic force phase imaging for dynamic detection of adsorbed hydrogen on a catalytic palladium surface under liquid. Ultramicroscopy, 2017, 181, 42-49.	0.8	0