

Peter Pfeifer

List of Publications by Year in descending order

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257450

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#	ARTICLE	IF	CITATIONS
1	Potential of an Alumina-Supported Ni ₃ Fe Catalyst in the Methanation of CO ₂ : Impact of Alloy Formation on Activity and Stability. ACS Catalysis, 2017, 7, 6802-6814.	11.2	150
2	Fischer-Tropsch synthesis in a microstructured reactor. Catalysis Today, 2009, 147, S301-S304.	4.4	112
3	Catalytic conversion of propane to hydrogen in microstructured reactors. Chemical Engineering Journal, 2004, 101, 93-99.	12.7	83
4	Hydrogen production from propane in Rh-impregnated metallic microchannel reactors and alumina foams. Catalysis Today, 2005, 105, 469-478.	4.4	80
5	Direct dimethyl ether synthesis from synthesis gas: The influence of methanol dehydration on methanol synthesis reaction. Catalysis Today, 2016, 270, 76-84.	4.4	74
6	Temperature profiles and residence time effects during catalytic partial oxidation and oxidative steam reforming of propane in metallic microchannel reactors. Catalysis Today, 2005, 110, 98-107.	4.4	71
7	Characteristics of an Integrated Micro Packed Bed Reactor-Heat Exchanger for methanol synthesis from syngas. Chemical Engineering Journal, 2011, 167, 496-503.	12.7	67
8	Hypothetical High-Surface-Area Carbons with Exceptional Hydrogen Storage Capacities: Open Carbon Frameworks. Journal of the American Chemical Society, 2012, 134, 15130-15137.	13.7	66
9	Hydrogen storage in engineered carbon nanospaces. Nanotechnology, 2009, 20, 204026.	2.6	65
10	Synthesis of dimethyl ether from syngas in a microchannel reactor—Simulation and experimental study. Chemical Engineering Journal, 2011, 167, 610-615.	12.7	58
11	Catalyst Coatings for Microstructure Reactors. Chimia, 2002, 56, 605-610.	0.6	45
12	Characteristics of integrated micro packed bed reactor-heat exchanger configurations in the direct synthesis of dimethyl ether. Chemical Engineering and Processing: Process Intensification, 2013, 70, 77-85.	3.6	39
13	Assessment of combustion properties of non-hydroprocessed Fischer-Tropsch fuels for aviation. Fuel Processing Technology, 2019, 193, 232-243.	7.2	39
14	Intensified LOHC-Dehydrogenation Using Multi-Stage Microstructures and Pd-Based Membranes. Membranes, 2018, 8, 112.	3.0	37
15	Influence of channel geometry on Fischer-Tropsch synthesis in microstructured reactors. Chemical Engineering Journal, 2017, 313, 328-335.	12.7	34
16	Drop-on-demand inkjet printing of alumina nanoparticles in rectangular microchannels. Microfluidics and Nanofluidics, 2014, 16, 655-666.	2.2	31
17	On the temperature control in a microstructured packed bed reactor for methanation of CO/CO ₂ mixtures. AIChE Journal, 2017, 63, 120-129.	3.6	30
18	Hydrogen Production from the LOHC Perhydro-Dibenzyl-Toluene and Purification Using a 5 Åm PdAg-Membrane in a Coupled Microstructured System. Materials, 2020, 13, 277.	2.9	30

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19	Preparation and Performance of a Catalyst-Coated Stacked Foil Microreactor for the Methanol Synthesis. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 10934-10941.	3.7	29
20	Catalyst Screening and Kinetic Modeling for CO Production by High Pressure and Temperature Reverse Water Gas Shift for Fischer-Tropsch Applications. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 13262-13272.	3.7	29
21	Performance and SEM characterization of Rh impregnated microchannel reactors in the catalytic partial oxidation of methane and propane. <i>Chemical Engineering Journal</i> , 2008, 144, 489-501.	12.7	28
22	Preparation and performance of Cu-based monoliths for methanol synthesis. <i>Applied Catalysis A: General</i> , 2011, 405, 1-7.	4.3	27
23	Microstructured Fischer-Tropsch Reactor Scale-up and Opportunities for Decentralized Application. <i>Chemical Engineering and Technology</i> , 2019, 42, 2202-2214.	1.5	27
24	Boron-neutron Capture on Activated Carbon for Hydrogen Storage. <i>Scientific Reports</i> , 2019, 9, 2971.	3.3	27
25	Numerical investigation of interfacial mass transfer in two phase flows using the VOF method. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2016, 10, 100-110.	3.1	26
26	Investigation of High-Temperature and High-Pressure Gas Adsorption in Zeolite H-ZSM-5 via the Langatate Crystal Microbalance: CO ₂ , H ₂ O, Methanol, and Dimethyl Ether. <i>Journal of Physical Chemistry C</i> , 2015, 119, 23478-23485.	3.1	24
27	Simulation of One-Stage Dimethyl Ether Synthesis over a Core-Shell Catalyst. <i>Chemie-Ingenieur-Technik</i> , 2015, 87, 702-712.	0.8	22
28	A consecutive methanation scheme for conversion of CO ₂ – A study on Ni ₃ Fe catalyst in a short-contact time micro packed bed reactor. <i>Chemical Engineering Journal</i> , 2020, 388, 124233.	12.7	22
29	Catalyst Deactivation During One-Step Dimethyl Ether Synthesis from Synthesis Gas. <i>Catalysis Letters</i> , 2017, 147, 865-879.	2.6	21
30	Influence of Fischer-Tropsch synthesis (FTS) and hydrocracking (HC) conditions on the product distribution of an integrated FTS-HC process. <i>Chemical Engineering Journal</i> , 2017, 310, 272-281.	12.7	21
31	Inkjet printing of porous nanoparticle-based catalyst layers in microchannel reactors. <i>Applied Catalysis A: General</i> , 2013, 467, 69-75.	4.3	20
32	Production of CO ₂ -neutral liquid fuels by integrating Fischer-Tropsch synthesis and hydrocracking in a single micro-structured reactor: Performance evaluation of different configurations by factorial design experiments. <i>Chemical Engineering Journal</i> , 2020, 393, 124553.	12.7	20
33	Performance of a multi-slit packed bed microstructured reactor in the synthesis of methanol: Comparison with a laboratory fixed-bed reactor. <i>Chemical Engineering Science</i> , 2011, 66, 6350-6357.	3.8	19
34	Development of thin palladium membranes supported on large porous 310L tubes for a steam reformer operated with gas-to-liquid fuel. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 81, 13-23.	3.6	19
35	Power-to-fuel conversion based on reverse water-gas-shift, Fischer-Tropsch Synthesis and Hydrocracking: Mathematical modeling and simulation in Matlab/Simulink. <i>Chemical Engineering Science</i> , 2020, 227, 115930.	3.8	19
36	Effect of metal precursor on Cu/ZnO/Al ₂ O ₃ synthesized by flame spray pyrolysis for direct DME production. <i>Chemical Engineering Science</i> , 2015, 138, 194-202.	3.8	17

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37	Kinetic Analysis of CO ₂ Hydrogenation to Long-Chain Hydrocarbons on a Supported Iron Catalyst. Industrial & Engineering Chemistry Research, 2022, 61, 1644-1654.	3.7	17
38	Analysis of External and Internal Mass Transfer at Low Reynolds Numbers in a Multiple-Slit Packed Bed Microstructured Reactor for Synthesis of Methanol from Syngas. Industrial & Engineering Chemistry Research, 2012, 51, 13574-13579.	3.7	16
39	Crystallite-pore network model of transport and reaction of multicomponent gas mixtures in polycrystalline microporous media. Chemical Engineering Journal, 2014, 254, 545-558.	12.7	16
40	Recent Developments in Compact Membrane Reactors with Hydrogen Separation. Membranes, 2018, 8, 107.	3.0	16
41	Open carbon frameworks - a search for optimal geometry for hydrogen storage. Journal of Molecular Modeling, 2013, 19, 4079-4087.	1.8	15
42	Structure-Function Relations for Gravimetric and Volumetric Methane Storage Capacities in Activated Carbon. ACS Omega, 2018, 3, 15119-15124.	3.5	15
43	Modeling and Simulation of an Integrated Micro Packed Bed Reactor-Heat Exchanger Configuration for Direct Dimethyl Ether Synthesis. Topics in Catalysis, 2011, 54, 817-827.	2.8	14
44	The Influence of the Pyrolysis Temperature on the Material Properties of Cobalt and Nickel Containing Precursor Derived Ceramics and their Catalytic Use for CO ₂ Methanation and Fischer-Tropsch Synthesis. Catalysis Letters, 2017, 147, 472-482.	2.6	14
45	One-stage syngas-to-fuel in a micro-structured reactor: Investigation of integration pattern and operating conditions on the selectivity and productivity of liquid fuels. Chemical Engineering Journal, 2017, 326, 37-46.	12.7	14
46	Experimental evaluation of gas mixing with a static microstructure mixer. Chemical Engineering Science, 2005, 60, 2955-2962.	3.8	13
47	Influence of the contact angle on two-phase flow in microreactors for nitrobenzene-hydrogen-stainless steel/carbon. Surface and Interface Analysis, 2010, 42, 1122-1127.	1.8	13
48	Thin-Film Catalytic Coating of a Microreactor for Preferential CO Oxidation over Pt Catalysts. Chemie-Ingenieur-Technik, 2013, 85, 664-672.	0.8	13
49	Application of hot-wire anemometry for experimental investigation of flow distribution in micro-packed bed reactors for synthesis gas conversion. Chemical Engineering Science, 2018, 177, 110-121.	3.8	13
50	Optimization of membrane area to catalyst mass in a microstructured membrane reactor for dehydrogenation of methylcyclohexane. Chemical Engineering and Processing: Process Intensification, 2018, 125, 325-333.	3.6	13
51	CO ₂ -neutrale Fischer-Tropsch-Kraftstoffe aus dezentralen modularen Anlagen: Status und Perspektiven. Chemie-Ingenieur-Technik, 2020, 92, 91-99.	0.8	12
52	Comparison between a micro reactor with multiple air inlets and a monolith reactor for oxidative steam reforming of diesel. International Journal of Hydrogen Energy, 2014, 39, 18037-18045.	7.1	11
53	Properties of adsorbed supercritical methane film in nanopores. AIP Advances, 2018, 8, .	1.3	11
54	HIGH-SURFACE-AREA BIOCARBONS FOR REVERSIBLE ON-BOARD STORAGE OF NATURAL GAS AND HYDROGEN. Materials Research Society Symposia Proceedings, 2007, 1041, 1.	0.1	10

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55	Pd/CeO ₂ catalysts as powder in a fixed-bed reactor and as coating in a stacked foil microreactor for the methanol synthesis. <i>Catalysis Today</i> , 2016, 273, 25-33.	4.4	10
56	Influence of the Condensable Hydrocarbons on an Integrated Fischer-Tropsch Synthesis and Hydrocracking Process: Simulation and Experimental Validation. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 13075-13085.	3.7	10
57	Nonstandard Roughness of Terraced Surfaces. <i>Physical Review Letters</i> , 2000, 85, 3894-3897.	7.8	9
58	High pressure membrane separator for hydrogen purification of gas from hydrothermal treatment of biomass. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13294-13304.	7.1	9
59	Modelling and simulation of a single slit micro packed bed reactor for methanol synthesis. <i>Catalysis Today</i> , 2020, 343, 226-233.	4.4	9
60	Dynamically Operated Fischer-Tropsch Synthesis in PtL-Part 1: System Response on Intermittent Feed. <i>ChemEngineering</i> , 2020, 4, 21.	2.4	9
61	Local Pressure of Supercritical Adsorbed Hydrogen in Nanopores. <i>Materials</i> , 2018, 11, 2235.	2.9	8
62	Sorption-Enhanced Water-Gas Shift Reaction for Synthesis Gas Production from Pure CO: Investigation of Sorption Parameters and Reactor Configurations. <i>Energies</i> , 2021, 14, 355.	3.1	8
63	Sub-nanometer characterization of activated carbon by inelastic neutron scattering. <i>Carbon</i> , 2011, 49, 1663-1671.	10.3	7
64	Surface roughness of machined microchannels and its effect on multiphase boundary conditions. <i>Chemical Engineering Journal</i> , 2013, 227, 2-12.	12.7	6
65	Scale-up of microstructured Fischer-Tropsch reactors – status and perspectives. <i>Current Opinion in Chemical Engineering</i> , 2022, 36, 100776.	7.8	6
66	Dynamically Operated Fischer-Tropsch Synthesis in PtL-Part 2: Coping with Real PV Profiles. <i>ChemEngineering</i> , 2020, 4, 27.	2.4	5
67	Application of evaporation cooling in a microstructured packed bed reactor for decentralized CO ₂ methanation. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 19971-19987.	7.1	5
68	Microreactor Approaches for Liquid Fuel Production from Bioderived Syngas – 5 m ³ /h Prototype Development for HTHP Water Gas Shift. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 4561-4571.	3.7	4
69	Influence of Power-to-Fuel Plant Flexibility Towards Power and Plant Utilization and Intermediate Hydrogen Buffer Size. <i>Chemie-Ingenieur-Technik</i> , 2020, 92, 1976-1982.	0.8	4
70	Influence of CO ₂ -Rich Syngas on the Selectivity to C ₁₀ -C ₁₄ in a Coupled Fischer-Tropsch/Hydrocracking Process. <i>Chemie-Ingenieur-Technik</i> , 0, , .	0.8	4
71	Detailed Kinetic Modeling of CO ₂ -Based Fischer-Tropsch Synthesis. <i>Catalysts</i> , 2022, 12, 630.	3.5	4
72	NUMERICAL ANALYSIS OF HYDROGEN STORAGE IN CARBON NANOPORES. <i>International Journal of Modern Physics B</i> , 2010, 24, 5152-5162.	2.0	3

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73	The influence of surface properties on chemical reaction in multiphase flow in capillaries. Chemical Engineering Journal, 2013, 225, 837-847.	12.7	3
74	Role of Liquid Concentration in Coke Yield from Model Vacuum Residueâ€“Coke Agglomerates. Industrial & Engineering Chemistry Research, 2015, 54, 9089-9096.	3.7	3
75	Fischer-Tropsch Synthesis on Co-Based Catalysts in a Microchannel Reactor: Effect of Temperature and Pressure on Selectivity and Stability. , 2016, , 223-242.		3
76	Oneâ€“Stage Syngasâ€“toâ€“Fuel Conversion with Printed Catalyst Layers in Microstructured Reactors. Chemie-Ingenieur-Technik, 2017, 89, 894-902.	0.8	3
77	Coupling of Fischer-Tropsch reaction kinetics, enhanced vaporâ€“liquid flash calculation and residence time distribution modeling for time-dependent product determination in load-flexible plants. Chemical Engineering Journal, 2020, 402, 126032.	12.7	3
78	Modular Server â€“ Client â€“ Server (MSCS) Approach for Process Optimization in Early R&D of Emerging Technologies by LCA. , 2012, , 119-124.		3
79	Numerical Simulation Approach for a Dynamically Operated Sorption-Enhanced Water-Gas Shift Reactor. Processes, 2022, 10, 1160.	2.8	3
80	Improving the Performance of Gas/Liquid Contactors by Optimizing Material Surface Properties. Journal of Chemical Engineering of Japan, 2012, 45, 727-733.	0.6	2
81	Catalytic coating in microstructured devices and their performance in terms of the SO2 oxidation. Journal of Sol-Gel Science and Technology, 2016, 80, 802-813.	2.4	2
82	Impact of product gas impurities from dehydrogenation of perhydro-dibenzyltoluene on the performance of a 10Å¹¼m PdAg-membrane. Journal of Membrane Science, 2021, 628, 119094.	8.2	2
83	A Holistic Consideration of Megawatt Electrolysis as a Key Component of Sector Coupling. Energies, 2022, 15, 3656.	3.1	2
84	Quantum Computing: From Bragg Reflections to Decoherence Estimates. Materials Research Society Symposia Proceedings, 2002, 746, 1.	0.1	0
85	Environmentally optimized microreactor design through Life Cycle Assessment. Green Processing and Synthesis, 2012, 1, .	3.4	0
86	Use of a Microstructured Mixer for Reaction Kinetics of Thermal Cracking. Industrial & Engineering Chemistry Research, 2013, 52, 4011-4016.	3.7	0
87	Influence of Reaction Conditions on the Conversion of Methaneâ€“Rich Gases to Fischerâ€“Tropsch Products. Chemical Engineering and Technology, 2019, 42, 2231-2240.	1.5	0