Peter Pfeifer

List of Publications by Year
in descending order

87	1,926	257450 24	289244 40
papers	citations	h-index	g-index

91	91	91	2025
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Scale-up of microstructured Fischerâ€“Tropsch reactors â€“ status and perspectives. Current Opinion in Chemical Engineering, 2022, 36, 100776.	7.8	6
2	Kinetic Analysis of CO₂ Hydrogenation to Long-Chain Hydrocarbons on a Supported Iron Catalyst. Industrial & Engineering Chemistry Research, 2022, 61, 1644-1654.	3.7	17
3	A Holistic Consideration of Megawatt Electrolysis as a Key Component of Sector Coupling. Energies, 2022, 15, 3656.	3.1	2
4	Numerical Simulation Approach for a Dynamically Operated Sorption-Enhanced Water-Gas Shift Reactor. Processes, 2022, 10, 1160.	2.8	3
5	Detailed Kinetic Modeling of CO2-Based Fischerâ€“Tropsch Synthesis. Catalysts, 2022, 12, 630.	3.5	4
6	Sorption-Enhanced Water-Gas Shift Reaction for Synthesis Gas Production from Pure CO: Investigation of Sorption Parameters and Reactor Configurations. Energies, 2021, 14, 355.	3.1	8
7	Application of evaporation cooling in a microstructured packed bed reactor for decentralized CO2 methanation. International Journal of Hydrogen Energy, 2021, 46, 19971-19987.	7.1	5
8	Impact of product gas impurities from dehydrogenation of perhydro-dibenzyltoluene on the performance of a 10ÂÎ¼m PdAg-membrane. Journal of Membrane Science, 2021, 628, 119094.	8.2	2
9	Modelling and simulation of a single slit micro packed bed reactor for methanol synthesis. Catalysis Today, 2020, 343, 226-233.	4.4	9
10	CO₂â€neutrale Fischerâ€Tropschâ€Kraftstoffe aus dezentralen modularen Anlagen: Status und Perspektiven. Chemie-Ingenieur-Technik, 2020, 92, 91-99.	0.8	12
11	A consecutive methanation scheme for conversion of CO2 â€“ A study on Ni3Fe catalyst in a short-contact time micro packed bed reactor. Chemical Engineering Journal, 2020, 388, 124233.	12.7	22
12	Influence of Powerâ€toâ€Fuel Plant Flexibility Towards Power and Plant Utilization and Intermediate Hydrogen Buffer Size. Chemie-Ingenieur-Technik, 2020, 92, 1976-1982.	0.8	4
13	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
14	Power-to-fuel conversion based on reverse water-gas-shift, Fischer-Tropsch Synthesis and Hydrocracking: Mathematical modeling and simulation in Matlab/Simulink. Chemical Engineering Science, 2020, 227, 115930.	3.8	19
15	Production of CO2-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. Chemical Engineering Journal, 2020, 393, 124553.	12.7	20
16	Hydrogen Production from the LOHC Perhydro-Dibenzyl-Toluene and Purification Using a 5 Âµm PdAg-Membrane in a Coupled Microstructured System. Materials, 2020, 13, 277.	2.9	30
17	Dynamically Operated Fischer-Tropsch Synthesis in PtL-Part 1: System Response on Intermittent Feed. ChemEngineering, 2020, 4, 21.	2.4	9
18	Dynamically Operated Fischerâ€“Tropsch Synthesis in PtLâ€”Part 2: Coping with Real PV Profiles. ChemEngineering, 2020, 4, 27.	2.4	5

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19	Microstructured Fischerâ€Tropsch Reactor Scaleâ€up and Opportunities for Decentralized Application. Chemical Engineering and Technology, 2019, 42, 2202-2214.	1.5	27
20	Influence of Reaction Conditions on theÂConversion of Methaneâ€Rich Gases toÂFischerâ€Tropsch Products. Chemical Engineering and Technology, 2019, 42, 2231-2240.	1.5	0
21	Assessment of combustion properties of non-hydroprocessed Fischer-Tropsch fuels for aviation. Fuel Processing Technology, 2019, 193, 232-243.	7.2	39
22	Boron-neutron Capture on Activated Carbon for Hydrogen Storage. Scientific Reports, 2019, 9, 2971.	3.3	27
23	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
24	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
25	Local Pressure of Supercritical Adsorbed Hydrogen in Nanopores. Materials, 2018, 11, 2235.	2.9	8
26	Intensified LOHC-Dehydrogenation Using Multi-Stage Microstructures and Pd-Based Membranes. Membranes, 2018, 8, 112.	3.0	37
27	Structureâ€“Function Relations for Gravimetric and Volumetric Methane Storage Capacities in Activated Carbon. ACS Omega, 2018, 3, 15119-15124.	3.5	15
28	Recent Developments in Compact Membrane Reactors with Hydrogen Separation. Membranes, 2018, 8, 107.	3.0	16
29	Properties of adsorbed supercritical methane film in nanopores. AIP Advances, 2018, 8, .	1.3	11
30	High pressure membrane separator for hydrogen purification of gas from hydrothermal treatment of biomass. International Journal of Hydrogen Energy, 2018, 43, 13294-13304.	7.1	9
31	Influence of channel geometry on Fischer-Tropsch synthesis in microstructured reactors. Chemical Engineering Journal, 2017, 313, 328-335.	12.7	34
32	The Influence of the Pyrolysis Temperature on the Material Properties of Cobalt and Nickel Containing Precursor Derived Ceramics and their Catalytic Use for CO2 Methanation and Fischerâ€“Tropsch Synthesis. Catalysis Letters, 2017, 147, 472-482.	2.6	14
33	Catalyst Deactivation During One-Step Dimethyl Ether Synthesis from Synthesis Gas. Catalysis Letters, 2017, 147, 865-879.	2.6	21
34	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
35	Influence of the Condensable Hydrocarbons on an Integrated Fischerâ€“Tropsch Synthesis and Hydrocracking Process: Simulation and Experimental Validation. Industrial & Engineering Chemistry Research, 2017, 56, 13075-13085.	3.7	10
36	Oneâ€Stage Syngasâ€toâ€Fuel Conversion with Printed Catalyst Layers in Microstructured Reactors. Chemie-Ingenieur-Technik, 2017, 89, 894-902.	0.8	3

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37	Potential of an Alumina-Supported Ni₃Fe Catalyst in the Methanation of CO₂: Impact of Alloy Formation on Activity and Stability. ACS Catalysis, 2017, 7, 6802-6814.	11.2	150
38	Catalyst Screening and Kinetic Modeling for CO Production by High Pressure and Temperature Reverse Water Gas Shift for Fischerâ€“Tropsch Applications. Industrial & Engineering Chemistry Research, 2017, 56, 13262-13272.	3.7	29
39	Influence of Fischer-Tropsch synthesis (FTS) and hydrocracking (HC) conditions on the product distribution of an integrated FTS-HC process. Chemical Engineering Journal, 2017, 310, 272-281.	12.7	21
40	On the temperature control in a microstructured packed bed reactor for methanation of CO/CO₂ mixtures. AICHE Journal, 2017, 63, 120-129.	3.6	30
41	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
42	Pd/CeO 2 catalysts as powder in a fixed-bed reactor and as coating in a stacked foil microreactor for the methanol synthesis. Catalysis Today, 2016, 273, 25-33.	4.4	10
43	Fischer-Tropsch Synthesis on Co-Based Catalysts in a Microchannel Reactor: Effect of Temperature and Pressure on Selectivity and Stability. , 2016, , 223-242.		3
44	Numerical investigation of interfacial mass transfer in two phase flows using the VOF method. Engineering Applications of Computational Fluid Mechanics, 2016, 10, 100-110.	3.1	26
45	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
46	Simulation of Oneâ€Stage Dimethyl Ether Synthesis over a Coreâ€Shell Catalyst. Chemie-Ingenieur-Technik, 2015, 87, 702-712.	0.8	22
47	Role of Liquid Concentration in Coke Yield from Model Vacuum Residueâ€“Coke Agglomerates. Industrial & Engineering Chemistry Research, 2015, 54, 9089-9096.	3.7	3
48	Microreactor Approaches for Liquid Fuel Production from Bioderived Syngas â^'5 m3/h Prototype Development for HTHP Water Gas Shift. Industrial & Engineering Chemistry Research, 2015, 54, 4561-4571.	3.7	4
49	Investigation of High-Temperature and High-Pressure Gas Adsorption in Zeolite H-ZSM-5 via the Langatate Crystal Microbalance: CO2, H2O, Methanol, and Dimethyl Ether. Journal of Physical Chemistry C, 2015, 119, 23478-23485.	3.1	24
50	Effect of metal precursor on Cu/ZnO/Al 2 O 3 synthesized by flame spray pyrolysis for direct DME production. Chemical Engineering Science, 2015, 138, 194-202.	3.8	17
51	Development of thin palladium membranes supported on large porous 310L tubes for a steam reformer operated with gas-to-liquid fuel. Chemical Engineering and Processing: Process Intensification, 2014, 81, 13-23.	3.6	19
52	Drop-on-demand inkjet printing of alumina nanoparticles in rectangular microchannels. Microfluidics and Nanofluidics, 2014, 16, 655-666.	2.2	31
53	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
54	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

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55	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
56	Open carbon frameworks - a search for optimal geometry for hydrogen storage. Journal of Molecular Modeling, 2013, 19, 4079-4087.	1.8	15
57	Inkjet printing of porous nanoparticle-based catalyst layers in microchannel reactors. Applied Catalysis A: General, 2013, 467, 69-75.	4.3	20
58	Surface roughness of machined microchannels and its effect on multiphase boundary conditions. Chemical Engineering Journal, 2013, 227, 2-12.	12.7	6
59	The influence of surface properties on chemical reaction in multiphase flow in capillaries. Chemical Engineering Journal, 2013, 225, 837-847.	12.7	3
60	Thinâ€Film Catalytic Coating of a Microreactor for Preferential CO Oxidation over Pt Catalysts. Chemie-Ingenieur-Technik, 2013, 85, 664-672.	0.8	13
61	Use of a Microstructured Mixer for Reaction Kinetics of Thermal Cracking. Industrial & Engineering Chemistry Research, 2013, 52, 4011-4016.	3.7	0
62	Environmentally optimized microreactor design through Life Cycle Assessment. Green Processing and Synthesis, 2012, 1, .	3.4	0
63	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
64	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
65	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
66	Modular Server â€“ Client â€“ Server (MSCS) Approach for Process Optimization in Early R&D of Emerging Technologies by LCA. , 2012, , 119-124.		3
67	Preparation and performance of Cu-based monoliths for methanol synthesis. Applied Catalysis A: General, 2011, 405, 1-7.	4.3	27
68	Performance of a multi-slit packed bed microstructured reactor in the synthesis of methanol: Comparison with a laboratory fixed-bed reactor. Chemical Engineering Science, 2011, 66, 6350-6357.	3.8	19
69	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
70	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
71	Synthesis of dimethyl ether from syngas in a microchannel reactorâ€”Simulation and experimental study. Chemical Engineering Journal, 2011, 167, 610-615.	12.7	58
72	Sub-nanometer characterization of activated carbon by inelastic neutron scattering. Carbon, 2011, 49, 1663-1671.	10.3	7

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73	Influence of the contact angle on twoâ€phase flow in microreactors for nitrobenzeneâ€“hydrogenâ€“stainless steel/carbon. Surface and Interface Analysis, 2010, 42, 1122-1127.	1.8	13
74	NUMERICAL ANALYSIS OF HYDROGEN STORAGE IN CARBON NANOPORES. International Journal of Modern Physics B, 2010, 24, 5152-5162.	2.0	3
75	Preparation and Performance of a Catalyst-Coated Stacked Foil Microreactor for the Methanol Synthesis. Industrial & Engineering Chemistry Research, 2010, 49, 10934-10941.	3.7	29
76	Fischerâ€“Tropsch synthesis in a microstructured reactor. Catalysis Today, 2009, 147, S301-S304.	4.4	112
77	Hydrogen storage in engineered carbon nanospaces. Nanotechnology, 2009, 20, 204026.	2.6	65
78	Performance and SEM characterization of Rh impregnated microchannel reactors in the catalytic partial oxidation of methane and propane. Chemical Engineering Journal, 2008, 144, 489-501.	12.7	28
79	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
80	Hydrogen production from propane in Rh-impregnated metallic microchannel reactors and alumina foams. Catalysis Today, 2005, 105, 469-478.	4.4	80
81	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
82	Experimental evaluation of gas mixing with a static microstructure mixer. Chemical Engineering Science, 2005, 60, 2955-2962.	3.8	13
83	Catalytic conversion of propane to hydrogen in microstructured reactors. Chemical Engineering Journal, 2004, 101, 93-99.	12.7	83
84	Quantum Computing: From Bragg Reflections to Decoherence Estimates. Materials Research Society Symposia Proceedings, 2002, 746, 1.	0.1	0
85	Catalyst Coatings for Microstructure Reactors. Chimia, 2002, 56, 605-610.	0.6	45
86	Nonstandard Roughness of Terraced Surfaces. Physical Review Letters, 2000, 85, 3894-3897.	7.8	9
87	Influence of CO 2 â€Rich Syngas on the Selectivity to C 10 â€“C 14 in a Coupled Fischerâ€Tropsch/Hydrocracking Process. Chemie-Ingenieur-Technik, 0, , .	0.8	4