Gunther Kolb

List of Publications by Year in descending order

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61 papers	2,766 citations	201674 27 h-index	197818 49 g-index
69 all docs	69 docs citations	69 times ranked	2246 citing authors

#	Article	IF	Citations
1	Tanks-in-series model for an auto-thermal reforming reactor with a channeled monolith. Chemical Engineering Science, 2021, 231, 116269.	3.8	2
2	Promoting effect of Rh on the activity and stability of Pt-based methane combustion catalyst in microreactors. Catalysis Communications, 2021, 149, 106202.	3.3	9
3	A complete fuel processor for propylene glycol as hydrogen supply for a 5 kw low temperature pem fuel cell â€“ Interim report on single reactors and system performance. Catalysis Today, 2021, , .	4.4	2
4	Direct Conversion of Carbon Dioxide to Methane over Ceriaâ€•and Aluminaâ€Supported Nickel Catalysts for Biogas Valorization. ChemPlusChem, 2021, 86, 889-903.	2.8	9
5	2D Model of Transfer Processes for Water Boiling Flow in Microchannel. ChemEngineering, 2021, 5, 42.	2.4	2
6	Effects of support composition on the performance of nickel catalysts in CO2 methanation reaction. Catalysis Today, 2020, 357, 468-482.	4.4	56
7	Hydrogen production over highly active Pt based catalyst coatings by steam reforming of methanol: Effect of support and co-support. International Journal of Hydrogen Energy, 2020, 45, 1658-1670.	7.1	54
8	CO Total and Preferential Oxidation over Stable Au/TiO2 Catalysts Derived from Preformed Au Nanoparticles. Catalysts, 2020, 10, 1028.	3.5	3
9	Effect of Support and Chelating Ligand on the Synthesis of Ni Catalysts with High Activity and Stability for CO2 Methanation. Catalysts, 2020, 10, 493.	3.5	10
10	Microchannel reactor heat-exchangers: A review of design strategies for the effective thermal coupling of gas phase reactions. Chemical Engineering and Processing: Process Intensification, 2020, 157, 108164.	3.6	26
11	CO 2 Methanation in Microstructured Reactors â€“ Catalyst Development and Process Design. Chemical Engineering and Technology, 2019, 42, 2076-2084.	1.5	18
12	Nano-architectured CeO2 supported Rh with remarkably enhanced catalytic activity for propylene glycol reforming reaction in microreactors. Applied Catalysis B: Environmental, 2018, 226, 403-411.	20.2	19
13	Energy-Efficient Routes for the Production of Gasoline from Biogas and Pyrolysis Oilâ€”Process Design and Life-Cycle Assessment. Industrial & Engineering Chemistry Research, 2017, 56, 3373-3387.	3.7	14
14	Effect of ceria and zirconia promotors on Ni/SBA-15 catalysts for coking and sintering resistant steam reforming of propylene glycol in microreactors. Applied Catalysis B: Environmental, 2017, 203, 859-869.	20.2	89
15	Control of autothermal reforming reactor of diesel fuel. Journal of Power Sources, 2016, 313, 223-232.	7.8	16
16	Novel route to control the size, distribution and location of Ni nanoparticles in mesoporous silica for steam reforming of propylene glycol in microchannel reactor. Catalysis Communications, 2016, 83, 43-47.	3.3	12
17	Review: Microstructured reactors as efficient tool for the operation of selective oxidation reactions. Catalysis Today, 2016, 278, 3-21.	4.4	35
18	Operation of a Smallâ€Scale Demonstration Plant for Biodiesel Synthesis under Supercritical Conditions. Chemical Engineering and Technology, 2016, 39, 2151-2163.	1.5	7

#	Article	IF	Citations
19	Highly active and durable Pt/In2O3/Al2O3 catalysts in methanol steam reforming. International Journal of Hydrogen Energy, 2016, 41, 21990-21999.	7.1	69
20	BIOGO: contributing to the transformation of the petrochemical industry through advances in nanocatalysts and reactor design. Green Processing and Synthesis, 2015, 4, .	3.4	1
21	Automated and Continuous Production ofÂMicrostructured Metallic Plates via Cold Embossing. Chemical Engineering and Technology, 2015, 38, 1308-1314.	1.5	4
22	Thermocatalytic decomposition of propane for pure hydrogen production and subsequent carbon gasification: Activity and long-term stability of Ni/Al2O3 based catalysts. Catalysis Today, 2015, 242, 139-145.	4.4	3
23	Methane reforming in a small-scaled plasma reactor â€“ Industrial application of a plasma process from the viewpoint of the environmental profile. Chemical Engineering Journal, 2015, 262, 766-774.	12.7	25
24	Effect of oxygen addition on the waterâ€“gas shift reaction over Pt/CeO 2 catalysts in microchannels â€“ Results from catalyst testing and reactor performance in the kW scale. International Journal of Hydrogen Energy, 2014, 39, 18120-18127.	7.1	9
25	Synthesis gas production from methane and propane in a miniaturized GlidArc Â® reformer. International Journal of Hydrogen Energy, 2014, 39, 12657-12666.	7.1	9
26	Microstructured Plate Heat Exchanger Reactors for High Temperature Applications. Chemie-Ingenieur-Technik, 2013, 85, 1619-1623.	0.8	2
27	Application of rhodium nanoparticles for steam reforming of propane in microchannels. Catalysis Communications, 2013, 41, 140-145.	3.3	17
28	Review: Microstructured reactors for distributed and renewable production of fuels and electrical energy. Chemical Engineering and Processing: Process Intensification, 2013, 65, 1-44.	3.6	208
29	Methanol Steam Reforming over Indium-Promoted Pt/Al₂O₃ Catalyst: Nature of the Active Surface. Journal of Physical Chemistry C, 2013, 117, 6143-6150.	3.1	37
30	Design and operation of a compact microchannel 5 kW el,net methanol steam reformer with novel Pt/In 2 O 3 catalyst for fuel cell applications. Chemical Engineering Journal, 2012, 207-208, 388-402.	12.7	42
31	Entwicklung einer leistungsstarken Mikrorektifikationsapparatur fÃ¼r analytische und prÃparative Anwendungen. Chemie-Ingenieur-Technik, 2011, 83, 465-478.	0.8	17
32	Self-sustained operation and durability testing of a 300 W-class micro-structured LPG fuel processor. International Journal of Hydrogen Energy, 2011, 36, 3496-3504.	7.1	27
33	Nd:YAG-Laser Welding with Dynamic Beam Forming. Laser Technik Journal, 2010, 7, 28-31.	0.2	10
34	The development and evaluation of microstructured reactors for the water gas shift and preferential oxidation reactions in the 5kW range. International Journal of Hydrogen Energy, 2010, 35, 2317-2327.	7.1	42
35	Methanol steam reforming over bimetallic Pdâ€“In/Al2O3 catalysts in a microstructured reactor. Applied Catalysis A: General, 2010, 380, 15-20.	4.3	60
36	Investigation on the Combined Operation of Water Gas Shift and Preferential Oxidation Reactor System on the kW Scale. Industrial & Engineering Chemistry Research, 2010, 49, 10917-10923.	3.7	7

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37	Kinetic study of CO preferential oxidation over Ptâ€“Rh/Î³-Al2O3 catalyst in a micro-structured recycle reactor. Catalysis Today, 2009, 145, 90-100.	4.4	22
38	Microstructured reactors for diesel steam reforming, water-gas shift and preferential oxidation in the kiloWatt power range. Catalysis Today, 2009, 147, S176-S184.	4.4	37
39	Selective Methanation of Carbon Monoxide in Hydrogen-rich Reformate Using Microstructured Reactor. Chemistry Letters, 2009, 38, 824-825.	1.3	4
40	A micro-structured 5kW complete fuel processor for iso-octane as hydrogen supply system for mobile auxiliary power unitsPart I. Development of autothermal reforming catalyst and reactor. Chemical Engineering Journal, 2008, 137, 653-663.	12.7	46
41	A micro-structured 5kW complete fuel processor for iso-octane as hydrogen supply system for mobile auxiliary power unitsPart IIâ€”Development of waterâ€“gas shift and preferential oxidation catalysts reactors and assembly of the fuel processor. Chemical Engineering Journal, 2008, 138, 474-489.	12.7	57
42	Preferential CO oxidation over a copperâ€“cerium oxide catalyst in a microchannel reactor. Applied Catalysis A: General, 2008, 350, 53-62.	4.3	69
43	Preferential CO oxidation over catalysts with well-defined inverse opal structure in microchannels. International Journal of Hydrogen Energy, 2008, 33, 797-801.	7.1	33
44	A complete miniaturized microstructured methanol fuel processor/fuel cell system for low power applications. International Journal of Hydrogen Energy, 2008, 33, 1374-1382.	7.1	55
45	Micro-Structured Evaporators for Laboratory Applications and Mobile Power Generation. , 2008, , .		0
46	Low temperature catalytic combustion of propane over Pt-based catalyst with inverse opal microstructure in a microchannel reactor. Chemical Communications, 2007, , 260-262.	4.1	24
47	Selective methanation of carbon oxides in a microchannel reactorâ€”Primary screening and impact of gas additives. Catalysis Today, 2007, 125, 81-87.	4.4	62
48	Preparation of Pt/ZSM-5 films on stainless steel microreactors. Catalysis Today, 2007, 125, 2-10.	4.4	52
49	Temperature control of the water gas shift reaction in microstructured reactors. Chemical Engineering Science, 2007, 62, 4602-4611.	3.8	39
50	Ethanol Steam Reforming in a Microchannel Reactor. Chemical Engineering Research and Design, 2007, 85, 413-418.	5.6	49
51	Fuel processing in integrated micro-structured heat-exchanger reactors. Journal of Power Sources, 2007, 171, 198-204.	7.8	93
52	Microstructured Fuel Processors for Fuel-Cell Applications. Journal of Materials Engineering and Performance, 2006, 15, 389-393.	2.5	21
53	Water-gas shift reaction in micro-channelsâ€”Results from catalyst screening and optimisation. Catalysis Today, 2005, 110, 121-131.	4.4	45
54	A new, versatile field immunosensor for environmental pollutantsDevelopment and proof of principle with TNT, diuron, and atrazine. Biosensors and Bioelectronics, 2005, 21, 354-364.	10.1	52

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55	Characterization of Cu/CeO2/Î³-Al2O3 Thin Film Catalysts by Thermal Desorption Spectroscopy. Catalysis Letters, 2005, 105, 35-40.	2.6	23
56	Steam reforming of methanol over Cu/CeO2/Î³-Al2O3 catalysts in a microchannel reactor. Applied Catalysis A: General, 2004, 277, 83-90.	4.3	91
57	Micro-structured reactors for gas phase reactions. Chemical Engineering Journal, 2004, 98, 1-38.	12.7	397
58	Propane steam reforming in micro-channelsâ€"results from catalyst screening and optimisation. Applied Catalysis A: General, 2004, 277, 155-166.	4.3	113
59	Detailed Characterization of Various Porous Alumina-Based Catalyst Coatings Within Microchannels and Their Testing for Methanol Steam Reforming. Chemical Engineering Research and Design, 2003, 81, 721-729.	5.6	113
60	Microfabrication for Energy Generating Devices and Fuel Processors. , 0, , 5-38.		0
61	Microreactor Concepts and Processing. , 0, , 85-129.		2