

Hilde J Venvik

List of Publications by Year in descending order

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63
papers

1,703
citations

218662

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citing authors

#	ARTICLE	IF	CITATIONS
1	Catalysis in microstructured reactors: Short review on small-scale syngas production and further conversion into methanol, DME and Fischer-Tropsch products. <i>Catalysis Today</i> , 2017, 285, 135-146.	4.4	101
2	Hydrogen production from propane in Rh-impregnated metallic microchannel reactors and alumina foams. <i>Catalysis Today</i> , 2005, 105, 469-478.	4.4	80
3	Production of hydrogen by short contact time partial oxidation and oxidative steam reforming of propane. <i>Catalysis Today</i> , 2005, 99, 69-76.	4.4	76
4	Direct dimethyl ether synthesis from synthesis gas: The influence of methanol dehydration on methanol synthesis reaction. <i>Catalysis Today</i> , 2016, 270, 76-84.	4.4	74
5	Temperature profiles and residence time effects during catalytic partial oxidation and oxidative steam reforming of propane in metallic microchannel reactors. <i>Catalysis Today</i> , 2005, 110, 98-107.	4.4	71
6	Characteristics of an Integrated Micro Packed Bed Reactor-Heat Exchanger for methanol synthesis from syngas. <i>Chemical Engineering Journal</i> , 2011, 167, 496-503.	12.7	67
7	Synthesis of dimethyl ether from syngas in a microchannel reactor—Simulation and experimental study. <i>Chemical Engineering Journal</i> , 2011, 167, 610-615.	12.7	58
8	Steam Reforming of Ethanol Over Supported Co and Ni Catalysts. <i>Topics in Catalysis</i> , 2008, 49, 38-45.	2.8	55
9	Experimental investigation of a microchannel membrane configuration with a 1.4 μ m Pd/Ag23wt.% membrane—Effects of flow and pressure. <i>Journal of Membrane Science</i> , 2009, 327, 6-10.	8.2	55
10	Small-scale hydrogen production from propane. <i>Catalysis Today</i> , 2005, 100, 457-462.	4.4	53
11	Monolithic, microchannel and carbon nanofibers/carbon felt reactors for syngas conversion by Fischer-Tropsch synthesis. <i>Catalysis Today</i> , 2013, 216, 150-157.	4.4	50
12	Studies of self-supported 1.6 μ m Pd/23wt.% Ag membranes during and after hydrogen production in a catalytic membrane reactor. <i>Catalysis Today</i> , 2006, 118, 63-72.	4.4	48
13	The effect of heat treatment in air on CO inhibition of a 1.4 μ m Pd—Ag (23wt.%) membrane. <i>Journal of Membrane Science</i> , 2010, 350, 371-377.	8.2	42
14	Adsorbate-induced segregation in a PdAg membrane model system: Pd3Ag(111). <i>Catalysis Today</i> , 2012, 193, 111-119.	4.4	42
15	Washcoating and chemical testing of a commercial Cu/ZnO/Al ₂ O ₃ catalyst for the methanol synthesis over copper open-cell foams. <i>Applied Catalysis A: General</i> , 2014, 481, 96-103.	4.3	42
16	Relating catalyst structure and composition to the water—gas shift activity of Cu—Zn-based mixed-oxide catalysts. <i>Catalysis Today</i> , 2005, 100, 249-254.	4.4	39
17	Characteristics of integrated micro packed bed reactor-heat exchanger configurations in the direct synthesis of dimethyl ether. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013, 70, 77-85.	3.6	39
18	Thickness dependent effects of solubility and surface phenomena on the hydrogen transport properties of sputtered Pd77%Ag23% thin film membranes. <i>Journal of Membrane Science</i> , 2015, 476, 602-608.	8.2	36

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19	Microstructural characterization of self-supported 1.6 μ m Pd/Ag membranes. <i>Journal of Membrane Science</i> , 2008, 310, 337-348.	8.2	35
20	Surface characterization of Pd/Ag ₂₃ wt% membranes after different thermal treatments. <i>Applied Surface Science</i> , 2010, 256, 6121-6132.	6.1	32
21	Reversed Hysteresis during CO Oxidation over Pd ₇₅ Ag ₂₅ (100). <i>ACS Catalysis</i> , 2016, 6, 4154-4161.	11.2	31
22	Nanocrystalline Cu-Ce-Zr mixed oxide catalysts for water-gas shift: Carbon nanofibers as dispersing agent for the mixed oxide particles. <i>Applied Catalysis B: Environmental</i> , 2007, 71, 7-15.	20.2	29
23	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
24	Remarks on the passivation of reduced Cu-, Ni-, Fe-, Co-based catalysts. <i>Catalysis Letters</i> , 2006, 110, 211-220.	2.6	28
25	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
26	Preparation and performance of Cu-based monoliths for methanol synthesis. <i>Applied Catalysis A: General</i> , 2011, 405, 1-7.	4.3	27
27	Highly active Cu-based catalysts on carbon nanofibers for isopropanol dehydrogenation. <i>Catalysis Today</i> , 2005, 100, 391-395.	4.4	25
28	Formation of the CO-induced (3 \times 1) surface structure on Co(112 $\bar{1}$,0) studied by STM. <i>Surface Science</i> , 1998, 397, 322-332.	1.9	24
29	Interaction of hydrogen with flat (0001) and corrugated (11 $\bar{1}$ 20) and (10 $\bar{1}$ 12) cobalt surfaces: Insights from experiment and theory. <i>Catalysis Today</i> , 2020, 342, 124-130.	4.4	24
30	Catalyst Deactivation During One-Step Dimethyl Ether Synthesis from Synthesis Gas. <i>Catalysis Letters</i> , 2017, 147, 865-879.	2.6	21
31	Fischer-Tropsch synthesis—Investigation of the deactivation of a Co catalyst by exposure to aerosol particles of potassium salt. <i>Applied Catalysis B: Environmental</i> , 2018, 230, 203-209.	20.2	20
32	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
33	Comparison of Cu $\bar{1}$ Ce $\bar{1}$ Zr and Cu $\bar{1}$ Zn $\bar{1}$ Al mixed oxide catalysts for water-gas shift. <i>Topics in Catalysis</i> , 2007, 45, 101-104.	2.8	17
34	Process concepts to produce syngas for Fischer-Tropsch fuels by solar thermochemical splitting of water and/or CO ₂ . <i>Fuel Processing Technology</i> , 2016, 145, 1-8.	7.2	17
35	Near Ambient Pressure XPS Investigation of CO Oxidation Over Pd ₃ Au(100). <i>Topics in Catalysis</i> , 2017, 60, 1439-1448.	2.8	17
36	The effect of platinum in Cu-Ce-Zr and Cu-Zn-Al mixed oxide catalysts for water-gas shift. <i>Applied Catalysis A: General</i> , 2008, 349, 46-54.	4.3	16

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37	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. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 13574-13579.	3.7	16
38	New Insight to the Effects of Heat Treatment in Air on the Permeation Properties of Thin Pd77%Ag23% Membranes. <i>Membranes</i> , 2018, 8, 92.	3.0	15
39	The surface core-level shift of the Rh (100) single-crystal surface. <i>Journal of Physics Condensed Matter</i> , 1994, 6, L7-L10.	1.8	14
40	Modeling and Simulation of an Integrated Micro Packed Bed Reactor-Heat Exchanger Configuration for Direct Dimethyl Ether Synthesis. <i>Topics in Catalysis</i> , 2011, 54, 817-827.	2.8	14
41	Initiation of Metal Dusting Corrosion in Conversion of Natural Gas to Syngas Studied under Industrially Relevant Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 1794-1803.	3.7	13
42	Application of hot-wire anemometry for experimental investigation of flow distribution in micro-packed bed reactors for synthesis gas conversion. <i>Chemical Engineering Science</i> , 2018, 177, 110-121.	3.8	13
43	Pd3Ag(111) as a Model System for Hydrogen Separation Membranes: Combined Effects of CO Adsorption and Surface Termination on the Activation of Molecular Hydrogen. <i>Topics in Catalysis</i> , 2020, 63, 750-761.	2.8	13
44	Studies of Macroporous Structured Alumina Based Cobalt Catalysts for Fischer-Tropsch Synthesis. <i>Catalysis Letters</i> , 2011, 141, 1739-1745.	2.6	12
45	Acetylene chemisorption and decomposition on the Co(100) single crystal surface. <i>Surface Science</i> , 2002, 499, 183-192.	1.9	11
46	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
47	Photoemission study of the Ce/Rh(100) overlayer system: Hybridization of d and f states. <i>Physical Review B</i> , 1994, 50, 1976-1979.	3.2	9
48	Effects of K adsorption on the CO-induced restructuring of Co(111-20). <i>Catalysis Today</i> , 2018, 299, 37-46.	4.4	9
49	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
50	Inhibition of metal dusting corrosion on Fe-based alloy by combined near surface severe plastic deformation (NS-SPD) and thermochemical treatment. <i>Corrosion Science</i> , 2021, 190, 109702.	6.6	9
51	Effects of metal dusting relevant exposures of alloy 601 surfaces on carbon formation and oxide development. <i>Catalysis Today</i> , 2021, 369, 48-61.	4.4	8
52	Segregation dynamics of a Pd-Ag surface during CO oxidation investigated by NAP-XPS. <i>Catalysis Today</i> , 2021, , .	4.4	8
53	Preparation of low temperature water-gas shift catalysts by flame spray pyrolysis. <i>Studies in Surface Science and Catalysis</i> , 2006, , 985-992.	1.5	7
54	Partial oxidation of methanol to formaldehyde in an annular reactor. <i>Chemical Engineering Journal</i> , 2021, 423, 130141.	12.7	7

#	ARTICLE	IF	CITATIONS
55	Chapter 11. Palladium-based Membranes in Hydrogen Production. , 2011, , 40-86.		7
56	The (2Å–5) carbon overlayer structure on Co(111) studied by STM. Applied Physics A: Materials Science and Processing, 1998, 66, S491-S494.	2.3	5
57	Metal Dusting Corrosion Initiation in Conversion of Natural Gas to Synthesis Gas. Energy Procedia, 2012, 26, 125-134.	1.8	5
58	H ₂ reduction of surface oxides on Pd-based membrane model systems – The case of Pd(100) and Pd ₇₅ Ag ₂₅ (100). Applied Surface Science, 2014, 313, 794-803.	6.1	5
59	Morphology and Activity of Electrolytic Silver Catalyst for Partial Oxidation of Methanol to Formaldehyde Under Different Exposures and Oxidation Reactions. Topics in Catalysis, 2019, 62, 699-711.	2.8	5
60	Deactivation of Co-Based Fischer–Tropsch Catalyst by Aerosol Deposition of Potassium Salts. Industrial & Engineering Chemistry Research, 2018, 57, 1935-1942.	3.7	4
61	CO-Induced Surface Reconstruction of the Co(111) Surface – A Combined Theoretical and Experimental Investigation. Journal of Physical Chemistry C, 2020, 124, 28488-28499.	3.1	3
62	Water–Gas Shift Activity of Pt Catalysts Prepared by Different Methods. Catalysts, 2020, 10, 1132.	3.5	2
63	The effect of aerosol-deposited ash components on a cobalt-based Fischer–Tropsch catalyst. Reaction Kinetics, Mechanisms and Catalysis, 2019, 127, 231-240.	1.7	0