Olaf Deutschmann

List of Publications by Year
in descending order

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Version: 2024-02-01

270	11,104	31974	45310
papers	citations	53 h-index	90 g-index

297	297	297	6244
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimizing Solid Oxide Fuel Cell Performance to Re-evaluate Its Role in the Mobility Sector. ACS Environmental Au, 2022, 2, 42-64.	7.0	14
2	Der Wasserstoffmotor â€“ Chancen und Herausforderungen auf dem Weg zu einer dekarbonisierten MobilitÃt. Chemie-Ingenieur-Technik, 2022, 94, 217-229.	0.8	11
3	Bubble Cutting by Cylinder â€“ Elimination of Wettability Effects by a Separating Liquid Film. Chemie-Ingenieur-Technik, 2022, 94, 385-392.	0.8	4
4	Oxidative Coupling of Methane over Pt/Al2O3 at High Temperature: Multiscale Modeling of the Catalytic Monolith. Catalysts, 2022, 12, 189.	3.5	6
5	Accelerating particle-resolved CFD simulations of catalytic fixed-bed reactors with DUO. Chemical Engineering Science, 2022, 250, 117408.	3.8	14
6	Modeling the decomposition of urea-water-solution in films and droplets under SCR conditions with chemistry in the liquid phase. International Journal of Heat and Fluid Flow, 2022, 94, 108936.	2.4	2
7	Spatially Resolved Measurements of HNCO Hydrolysis over SCR Catalysts. Chemie-Ingenieur-Technik, 2022, 94, 738-746.	0.8	4
8	Deposition and decomposition of urea and its by-products on TiO2 and VWT-SCR catalysts. International Journal of Heat and Fluid Flow, 2022, 95, 108969.	2.4	4
9	Benchmarking solid oxide electrolysis cell-stacks for industrial Power-to-Methane systems via hierarchical multi-scale modelling. Applied Energy, 2022, 317, 119143.	10.1	15
10	Experimental and numerical investigation of NO oxidation on Pt/Al₂O₃- and NO_xstorage on Pt/BaO/Al₂O₃-catalysts. Catalysis Science and Technology, 2022, 12, 4456-4470.	4.1	9
11	A step toward the numerical simulation of catalytic hydrogenation of nitrobenzene in Taylor flow at practical conditions. Chemical Engineering Science, 2021, 230, 116132.	3.8	12
12	Analysis of a biogas-fed SOFC CHP system based on multi-scale hierarchical modeling. Renewable Energy, 2021, 163, 78-87.	8.9	43
13	Homogeneous conversion of NO_x and NH₃ with CH₄, CO, and C₂H₄ at the diluted conditions of exhaustâ€gases of lean operated natural gas engines. International Journal of Chemical Kinetics, 2021, 53, 213-229.	1.6	12
14	Insights into the interaction kinetics between propene and NOx at moderate temperatures with experimental and modeling methods. Proceedings of the Combustion Institute, 2021, 38, 795-803.	3.9	15
15	Lean-Burn Natural Gas Engines: Challenges and Concepts for an Efficient Exhaust Gas Aftertreatment System. Emission Control Science and Technology, 2021, 7, 1-6.	1.5	29
16	Effects of Hydrothermal Aging on CO and NO Oxidation Activity over Monometallic and Bimetallic Pt-Pd Catalysts. Catalysts, 2021, 11, 300.	3.5	20
17	Spatiotemporal Investigation of the Temperature and Structure of a Pt/CeO₂ Oxidation Catalyst for CO and Hydrocarbon Oxidation during Pulse Activation. Industrial & Engineering Chemistry Research, 2021, 60, 6662-6675.	3.7	17
18	A Unified Research Data Infrastructure for Catalysis Research â€“ Challenges and Concepts. ChemCatChem, 2021, 13, 3223-3236.	3.7	45

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19	Morphological characterization of urea derived deposits in SCR systems. Chemical Engineering Journal, 2021, 409, 128230.	12.7	10
20	Reaction Kinetics of CO and CO₂ Methanation over Nickel. Industrial & Engineering Chemistry Research, 2021, 60, 5792-5805.	3.7	81
21	Reduktion der CO 2 â€Emissionen aus den Abgasen der Stahlindustrie durch Trockenreformierung von Methan. Angewandte Chemie, 2021, 133, 11959-11964.	2.0	0
22	Reduction of CO₂ Emission from Offâ€Gases of Steel Industry by Dry Reforming of Methane. Angewandte Chemie - International Edition, 2021, 60, 11852-11857.	13.8	27
23	Model-Based Optimization of Solid Oxide Electrolysis Cells and Stacks for Power-to-Gas Applications. ECS Meeting Abstracts, 2021, MA2021-03, 220-220.	0.0	0
24	Spreading and rebound dynamics of sub-millimetre urea-water-solution droplets impinging on substrates of varying wettability. Applied Mathematical Modelling, 2021, 95, 53-73.	4.2	26
25	Impact of gas phase reactions and catalyst poisons on the NH3-SCR activity of a V2O5-WO3/TiO2 catalyst at pre-turbine position. Applied Catalysis B: Environmental, 2021, 288, 119991.	20.2	21
26	Model-Based Optimization of Solid Oxide Electrolysis Cells and Stacks for Power-to-Gas Applications. ECS Transactions, 2021, 103, 545-554.	0.5	1
27	Advances and challenges of ammonia delivery by urea-water sprays in SCR systems. Progress in Energy and Combustion Science, 2021, 87, 100949.	31.2	43
28	Evaluation of models for bubble-induced turbulence by DNS and utilization in two-fluid model computations of an industrial pilot-scale bubble column. Chemical Engineering Research and Design, 2021, 175, 283-295.	5.6	3
29	Exploring the interaction kinetics of butene isomers and NOx at low temperatures and diluted conditions. Combustion and Flame, 2021, 233, 111557.	5.2	8
30	Kinetic modeling and simulation of high-temperature by-product formation from urea decomposition. Chemical Engineering Science, 2021, 246, 116876.	3.8	20
31	Selective Catalytic Reduction of NO_x with H₂ for Cleaning Exhausts of Hydrogen Engines: Impact of H₂O, O₂, and NO/H₂ Ratio. Industrial & Engineering Chemistry Research, 2021, 60, 6613-6626.	3.7	39
32	CFD-Modeling of fluid domains with embedded monoliths with emphasis on automotive converters. Chemical Engineering and Processing: Process Intensification, 2020, 147, 107728.	3.6	10
33	PGM based catalysts for exhaust-gas after-treatment under typical diesel, gasoline and gas engine conditions with focus on methane and formaldehyde oxidation. Applied Catalysis B: Environmental, 2020, 265, 118571.	20.2	56
34	Investigation of HCHO Catalytic Oxidation over Platinum using Planar Laser-Induced Fluorescence. Applied Catalysis B: Environmental, 2020, 264, 118473.	20.2	15
35	Urea derived deposits in diesel exhaust gas after-treatment: Integration of urea decomposition kinetics into a CFD simulation. Chemical Engineering Science, 2020, 211, 115319.	3.8	19
36	Microkinetic Modeling of the Oxidation of Methane Over PdO Catalystsâ€"Towards a Better Understanding of the Water Inhibition Effect. Catalysts, 2020, 10, 922.	3.5	22

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37	Dry and Steam Reforming of CH₄ on Co-Hexaaluminate: On the Formation of Metallic Co and Its Influence on Catalyst Activity. Industrial & Engineering Chemistry Research, 2020, 59, 18790-18797.	3.7	12
38	Spatially and Temporally Resolved Measurements of NO Adsorption/Desorption over NOxâ€Storage Catalyst. ChemPhysChem, 2020, 21, 2497-2501.	2.1	5
39	Numerical Simulation of Methane and Propane Reforming Over a Porous Rh/Al2O3 Catalyst in Stagnation-Flows: Impact of Internal and External Mass Transfer Limitations on Species Profiles. Catalysts, 2020, 10, 915.	3.5	6
40	A Qualitative Numerical Study on Catalytic Hydrogenation of Nitrobenzene in Gas-Liquid Taylor Flow with Detailed Reaction Mechanism. Fluids, 2020, 5, 234.	1.7	3
41	Flexible energy conversion and storage via high-temperature gas-phase reactions: The piston engine as a polygeneration reactor. Renewable and Sustainable Energy Reviews, 2020, 133, 110264.	16.4	31
42	Freisetzung von toxischem HCN bei der Stickoxidreduktion mittels NH 3 â€SCR in mager betriebenen Erdgasmotoren. Angewandte Chemie, 2020, 132, 14530-14535.	2.0	4
43	Emission of Toxic HCN During NO_x Removal by Ammonia SCR in the Exhaust of Leanâ€Burn Natural Gas Engines. Angewandte Chemie - International Edition, 2020, 59, 14423-14428.	13.8	33
44	Deposit Formation from Urea Injection: a Comprehensive Modeling Approach. Emission Control Science and Technology, 2020, 6, 211-227.	1.5	22
45	Understanding sulfur poisoning of bimetallic Pd-Pt methane oxidation catalysts and their regeneration. Applied Catalysis B: Environmental, 2020, 278, 119244.	20.2	49
46	Influence of liquid composition on diffusive mass transfer in the lubricating film of Taylor flowâ€”A study related to the hydrogenation of nitrobenzene. Chemical Engineering and Processing: Process Intensification, 2020, 149, 107835.	3.6	4
47	The effect of wetting characteristics, thermophysical properties, and roughness on spray-wall heat transfer in selective catalytic reduction systems. International Journal of Heat and Mass Transfer, 2020, 152, 119554.	4.8	12
48	A Holistic View on Urea Injection for NOx Emission Control: Impingement, Re-atomization, and Deposit Formation. Emission Control Science and Technology, 2020, 6, 228-243.	1.5	12
49	Performance analysis and temperature gradient of solid oxide fuel cell stacks operated with bio-oil sorption-enhanced steam reforming. International Journal of Hydrogen Energy, 2020, 45, 12108-12120.	7.1	8
50	In situ Activation of Bimetallic Pdâ^'Pt Methane Oxidation Catalysts. ChemCatChem, 2020, 12, 3712-3720.	3.7	32
51	Computational Fluid Dynamics of Catalytic Reactors. , 2020, , 1405-1438.		1
52	Maximum Spreading of Urea Water Solution during Drop Impingement. Chemical Engineering and Technology, 2019, 42, 2419-2427.	1.5	9
53	Thermal Decomposition of a Single AdBlueÂ® Droplet Including Wallâ€“Film Formation in Turbulent Cross-Flow in an SCR System. Energies, 2019, 12, 2600.	3.1	8
54	Thermodynamics and reaction mechanism of urea decomposition. Physical Chemistry Chemical Physics, 2019, 21, 16785-16797.	2.8	100

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55	Heat transfer during spray/wall interaction with urea water solution: An experimental parameter study. International Journal of Heat and Fluid Flow, 2019, 78, 108432.	2.4	13
56	Performance analysis of a reversible solid oxide cell system based on multi-scale hierarchical solid oxide cell modelling. Energy Conversion and Management, 2019, 196, 484-496.	9.2	31
57	The internal combustion engine as a CO2 reformer. Combustion and Flame, 2019, 207, 186-195.	5.2	26
58	Dynamic Modeling of Reversible Solid Oxide Cells. Chemie-Ingenieur-Technik, 2019, 91, 833-842.	0.8	12
59	NH₃-SCR over Vâ€“W/TiO₂ Investigated by Operando X-ray Absorption and Emission Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 14338-14349.	3.1	20
60	The Effect of Prereduction on the Performance of Pd/Al₂O₃ and Pd/CeO₂ Catalysts during Methane Oxidation. Industrial & Engineering Chemistry Research, 2019, 58, 12561-12570.	3.7	58
61	Trendbericht Technische Chemie. Nachrichten Aus Der Chemie, 2019, 67, 50-58.	0.0	0
62	CaRMeN: An Improved Computer-Aided Method for Developing Catalytic Reaction Mechanisms. Catalysts, 2019, 9, 227.	3.5	21
63	Unravelling the Different Reaction Pathways for Low Temperature CO Oxidation on Pt/CeO₂ and Pt/Al₂O₃ by Spatially Resolved Structureâ€“Activity Correlations. Journal of Physical Chemistry Letters, 2019, 10, 7698-7705.	4.6	58
64	Characterization of solid deposits from urea water solution injected into a hot gas test rig. Chemical Engineering Journal, 2019, 377, 119855.	12.7	33
65	Homogeneous oxidation of light alkanes in the exhaust of turbocharged lean-burn gas engines. Chemical Engineering Journal, 2019, 377, 119800.	12.7	14
66	Formaldehyde Oxidation Over Platinum: On the Kinetics Relevant to Exhaust Conditions of Lean-Burn Natural Gas Engines. Topics in Catalysis, 2019, 62, 206-213.	2.8	8
67	Impact of the Support on the Catalytic Performance, Inhibition Effects and SO2 Poisoning Resistance of Pt-Based Formaldehyde Oxidation Catalysts. Topics in Catalysis, 2019, 62, 198-205.	2.8	14
68	Selective Catalytic Reduction of NOx with Ammonia and Hydrocarbon Oxidation Over V2O5â€“MoO3/TiO2 and V2O5â€“WO3/TiO2 SCR Catalysts. Topics in Catalysis, 2019, 62, 129-139.	2.8	16
69	Surface reaction kinetics of methane oxidation over PdO. Journal of Catalysis, 2019, 370, 152-175.	6.2	105
70	Reverse water gas shift (RWGS) over Ni â€“ Spatially-resolved measurements and simulations. Chemical Engineering Journal, 2019, 362, 430-441.	12.7	29
71	On the challenges and constrains of ultra-low emission limits: Formaldehyde oxidation in catalytic sinusoidal-shaped channels. Chemical Engineering Science, 2019, 195, 841-850.	3.8	21
72	On suitability of phase-field and algebraic volume-of-fluid OpenFOAMÂ® solvers for gasâ€“liquid microfluidic applications. Computer Physics Communications, 2019, 236, 72-85.	7.5	25

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73	Regeneration of Sulfur Poisoned Pdâ€“Pt/CeO2â€“ZrO2â€“Y2O3â€“La2O3 and Pdâ€“Pt/Al2O3 Methane Oxidation Catalysts. Topics in Catalysis, 2019, 62, 164-171.	2.8	20
74	Dynamic behavior and control strategy study of CO2/H2O co-electrolysis in solid oxide electrolysis cells. Journal of Power Sources, 2019, 412, 255-264.	7.8	39
75	New experimental insights in AdBlue-spray/wall interaction and its impacts on EGT system design. Proceedings, 2019, , 142-154.	0.3	0
76	CaRMeN: a tool for analysing and deriving kinetics in the real world. Physical Chemistry Chemical Physics, 2018, 20, 10857-10876.	2.8	24
77	A reduced model for the evaporation and decomposition of ureaâ€“water solution droplets. International Journal of Heat and Fluid Flow, 2018, 70, 216-225.	2.4	13
78	vasQchip: A Novel Microfluidic, Artificial Blood Vessel Scaffold for Vascularized 3D Tissues. Advanced Materials Technologies, 2018, 3, 1700246.	5.8	15
79	Thermodynamic Considerations on the Oxidation State of Co/Î³â€Al₂O₃ and Ni/Î³â€Al₂O₃ Catalysts under Dry and Steam Reforming Conditions. ChemCatChem, 2018, 10, 751-757.	3.7	39
80	Validation of a numerical method for interface-resolving simulation of multicomponent gas-liquid mass transfer and evaluation of multicomponent diffusion models. Heat and Mass Transfer, 2018, 54, 697-713.	2.1	5
81	Single droplet impingement of urea water solution on a heated substrate. International Journal of Heat and Fluid Flow, 2018, 69, 55-61.	2.4	54
82	3D modeling of a CPOX-reformer including detailed chemistry and radiation effects with DUO. Computers and Chemical Engineering, 2018, 109, 166-178.	3.8	15
83	Computational Fluid Dynamics of Catalytic Reactors. , 2018, , 1-34.		4
84	Chemie Ingenieur Technik und ACHEMA - Zwei Partner mit langer Tradition. Chemie-Ingenieur-Technik, 2018, 90, 747-747.	0.8	0
85	Hierarchical modeling of solid oxide cells and stacks producing syngas via H2O/CO2 Co-electrolysis for industrial applications. Applied Energy, 2018, 230, 996-1013.	10.1	60
86	Oxidative dehydrogenation of butenes over Biâ€Mo and Moâ€V based catalysts in a twoâ€zone fluidized bed reactor. AICHE Journal, 2017, 63, 43-50.	3.6	13
87	Surface Reaction Kinetics of the Oxidation and Reforming of Propane over Rh/Al₂O₃ Catalysts. ChemCatChem, 2017, 9, 685-695.	3.7	18
88	Elementary kinetics of the oxygen reduction reaction on LSM-YSZ composite cathodes. Journal of Catalysis, 2017, 346, 30-49.	6.2	27
89	CFD Simulation of Liquid Back Suction and Gas Bubble Formation in a Circular Tube with Sudden or Gradual Expansion. Emission Control Science and Technology, 2017, 3, 289-301.	1.5	13
90	Model-Based Optimization of Ammonia Dosing in NH3-SCR of NO x for Transient Driving Cycle: Model Development and Simulation. Emission Control Science and Technology, 2017, 3, 249-262.	1.5	3

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91	Optimization of axial catalyst loading in transient-operated zone-structured monoliths: Reduction of cumulative emissions in automotive oxidation catalysts. Chemical Engineering Science, 2017, 174, 189-202.	3.8	7
92	Nitric Oxide Reduction of Heavy-Duty Diesel Off-Gas by NH3-SCR in Front of the Turbocharger. Emission Control Science and Technology, 2017, 3, 275-288.	1.5	15
93	Sulfur poisoning and regeneration of bimetallic Pd-Pt methane oxidation catalysts. Applied Catalysis B: Environmental, 2017, 218, 833-843.	20.2	66
94	Real-time Simulation of Dual-Layer Catalytic Converters Based on the Internal Mass Transfer Coefficient Approach. Topics in Catalysis, 2017, 60, 225-229.	2.8	12
95	Methane Oxidation over Palladium: On the Mechanism in Fuel-Rich Mixtures at High Temperatures. Topics in Catalysis, 2017, 60, 83-109.	2.8	33
96	The Impact of Pre-Turbine Catalyst Placement on Methane Oxidation in Lean-Burn Gas Engines: An Experimental and Numerical Study. , 2017, , .		6
97	Spatial Concentration Profiles for the Catalytic Partial Oxidation of Jet Fuel Surrogates in a Rh/Al2O3 Coated Monolith. Catalysts, 2016, 6, 207.	3.5	5
98	Surface Reaction Kinetics of the Oxidation and Reforming of CH₄ over Rh/Al₂ O₃ Catalysts. International Journal of Chemical Kinetics, 2016, 48, 144-160.	1.6	44
99	Numerical study on the wettability dependent interaction of a rising bubble with a periodic open cellular structure. Catalysis Today, 2016, 273, 151-160.	4.4	22
100	Elementary Reaction Modeling and Experimental Characterization on Methane Partial Oxidation within a Catalyst-Enhanced Porous Media Combustor. Energy & Fuels, 2016, 30, 7778-7785.	5.1	10
101	CFD Evaluation of In Situ Probe Techniques for Catalytic Honeycomb Monoliths. Emission Control Science and Technology, 2016, 2, 188-203.	1.5	11
102	Oxidative Dehydrogenation of a C4 Raffinateâ€2 towards 1,3â€Butadiene in a Twoâ€Zone Fluidized Bed. Chemie-Ingenieur-Technik, 2016, 88, 1723-1729.	0.8	1
103	Formation of Urea-Based Deposits in an Exhaust System: Numerical Predictions and Experimental Observations on a Hot Gas Test Bench. Emission Control Science and Technology, 2016, 2, 115-123.	1.5	58
104	Flow and pressure characteristics in rectangular channels with internal cylindrical bodies. Chemical Engineering Science, 2016, 149, 296-305.	3.8	7
105	Cu-SSZ-13 as pre-turbine NOx-removal-catalyst: Impact of pressure and catalyst poisons. Applied Catalysis B: Environmental, 2016, 198, 548-557.	20.2	36
106	Impact of sulfur on catalytic partial oxidation of jet fuel surrogates over Rh/Al 2 O 3. International Journal of Hydrogen Energy, 2016, 41, 3701-3711.	7.1	6
107	Oxidative dehydrogenation of n-butane to butadiene with Mo-V-MgO catalysts in a two-zone fluidized bed reactor. Applied Catalysis A: General, 2016, 511, 23-30.	4.3	39
108	A one-dimensional modeling approach for dual-layer monolithic catalysts. Chemical Engineering Science, 2016, 139, 196-210.	3.8	21

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109	Two-Zone Fluidized Bed Reactors for Butadiene Production: A Multiphysical Approach with Solver Coupling for Supercomputing Application. , 2016, , 269-280.		2
110	Kinetic Monte Carlo simulations of surface reactions on supported nanoparticles: A novel approach and computer code. Journal of Chemical Physics, 2015, 143, 044108.	3.0	30
111	Numerical Simulation of Wetting Phenomena with a Phaseâ€Field Method Using OpenFOAMÂ®. Chemical Engineering and Technology, 2015, 38, 1985-1992.	1.5	49
112	Twoâ€Dimensional Spatial Resolution of Concentration Profiles in Catalytic Reactors by Planar Laserâ€Induced Fluorescence: NO Reduction over Diesel Oxidation Catalysts. Angewandte Chemie, 2015, 127, 2691-2693.	2.0	2
113	Surface Reaction Kinetics of Steam- and CO2-Reforming as Well as Oxidation of Methane over Nickel-Based Catalysts. Catalysts, 2015, 5, 871-904.	3.5	129
114	Mass Transfer Effects in Stagnation Flows on a Porous Catalyst: Water-Gas-Shift Reaction Over Rh/Al₂O₃. Zeitschrift Fur Physikalische Chemie, 2015, 229, 709-737.	2.8	12
115	On the coke deposition in dry reforming of methane at elevated pressures. Applied Catalysis A: General, 2015, 504, 599-607.	4.3	97
116	Twoâ€Dimensional Spatial Resolution of Concentration Profiles in Catalytic Reactors by Planar Laserâ€Induced Fluorescence: NO Reduction over Diesel Oxidation Catalysts. Angewandte Chemie - International Edition, 2015, 54, 2653-2655.	13.8	30
117	Numerical optimization and reaction flow analysis of syngas production via partial oxidation of natural gas in internal combustion engines. International Journal of Hydrogen Energy, 2015, 40, 11046-11058.	7.1	35
118	An Elementary Kinetic Model for the Electrochemical Reduction of Oxygen on LSM/YSZ Composite Cathodes. ECS Transactions, 2015, 68, 713-727.	0.5	1
119	Influence of gas composition on activity and durability of bimetallic Pd-Pt/Al2O3 catalysts for total oxidation of methane. Catalysis Today, 2015, 258, 470-480.	4.4	93
120	Numerical analysis of mass and heat transport in proton-conducting SOFCs with direct internal reforming. Applied Energy, 2015, 149, 161-175.	10.1	60
121	Numerical simulation of a structured catalytic methane reformer by DUO: The new computational interface for OpenFOAMÂ® and DETCHEMâ„¢. Catalysis Today, 2015, 258, 230-240.	4.4	36
122	Soot and hydrocarbon oxidation over vanadia-based SCR catalysts. Catalysis Today, 2015, 258, 461-469.	4.4	31
123	Modeling of the Interactions Between Catalytic Surfaces and Gas-Phase. Catalysis Letters, 2015, 145, 272-289.	2.6	65
124	A model-based understanding of solid-oxide electrolysis cells (SOECs) for syngas production by H2O/CO2 co-electrolysis. Journal of Power Sources, 2015, 274, 768-781.	7.8	88
125	Structureâ€“Activity Relationships of Nickelâ€“Hexaaluminates in Reforming Reactions Partâ€…I: Controlling Nickel Nanoparticle Growth and Phase Formation. ChemCatChem, 2014, 6, 1438-1446.	3.7	9
126	In Situ Investigations of Catalytic NO Reduction Inside an Optically Accessible Flow Reactor. Chemie-Ingenieur-Technik, 2014, 86, 538-543.	0.8	1

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127	Modelling of local aging effects of commercial threeâ€way catalysts: Spatial temperature and CO conversion profiles. Canadian Journal of Chemical Engineering, 2014, 92, 1587-1596.	1.7	8
128	Untersuchung der Dehydrierung und der oxidativen Dehydrierung vonn-Butan an Platin und V-basierten Katalysatoren in einem Zwei-Zonen-Wirbelschichtreaktor. Chemie-Ingenieur-Technik, 2014, 86, 1539-1539.	0.8	0
129	Structureâ€“Activity Relationships of Nickelâ€“Hexaaluminates in Reforming Reactions Partâ€…II: Activity and Stability of Nanostructured Nickelâ€“Hexaaluminateâ€Based Catalysts in the Dry Reforming of Methane. ChemCatChem, 2014, 6, 1447-1452.	3.7	21
130	Spatial Resolution of Species and Temperature Profiles in Catalytic Reactors. Advances in Chemical Engineering, 2014, 45, 41-95.	0.9	6
131	Kinetic modeling of urea decomposition based on systematic thermogravimetric analyses of urea and its most important by-products. Chemical Engineering Science, 2014, 106, 1-8.	3.8	112
132	Answer to the Comment from Goguet et al. to the paper â€œThe Critical evaluation of in situ probe techniques for catalytic honeycomb monolithsâ€•by Hettel et al. [1]. Catalysis Today, 2014, 236, 209-213.	4.4	11
133	Correlation between catalytic activity and catalytic surface area of a Pt/Al2O3 DOC: An experimental and microkinetic modeling study. Applied Catalysis B: Environmental, 2014, 156-157, 153-165.	20.2	52
134	A mathematical model to analyze solid oxide electrolyzer cells (SOECs) for hydrogen production. Chemical Engineering Science, 2014, 110, 83-93.	3.8	55
135	A detailed kinetic model for biogas steam reforming on Ni and catalyst deactivation due to sulfur poisoning. Applied Catalysis A: General, 2014, 471, 118-125.	4.3	81
136	Kinetics of the water-gas shift reaction over Rh/Al2O3 catalysts. Applied Catalysis A: General, 2014, 470, 31-44.	4.3	45
137	Natural Gas Steam Reforming over Rhodium/Alumina Catalysts: Experimental and Numerical Study of the Carbon Deposition from Ethylene and Carbon Monoxide. Industrial & Engineering Chemistry Research, 2014, 53, 12270-12278.	3.7	12
138	Hydrogen production by catalytic partial oxidation of methane over staged Pd/Rh coated monoliths: Spatially resolved concentration and temperature profiles. International Journal of Hydrogen Energy, 2014, 39, 17998-18004.	7.1	34
139	Macroâ€•and Microkinetic Simulation of Diesel Oxidation Catalyst: Effect of Aging, Noble Metal Loading and Platinum Oxidation. Chemie-Ingenieur-Technik, 2013, 85, 673-685.	0.8	12
140	Effect of Hydrothermal Aging on Physical and Chemical Properties of a Commercial NOx-Storage Catalyst. Topics in Catalysis, 2013, 56, 293-297.	2.8	7
141	Modeling of Solid-Oxide Electrolyser Cells: From H₂, CO Electrolysis to Co-Electrolysis. ECS Transactions, 2013, 57, 3207-3216.	0.5	8
142	Numerical modeling of stagnation-flows on porous catalytic surfaces: CO oxidation on Rh/Al2O3. Chemical Engineering Science, 2013, 104, 899-907.	3.8	37
143	Internal Multi-Physics Phenomena of SOFC with Direct Internal Reforming. ECS Transactions, 2013, 57, 2475-2484.	0.5	1
144	Thermal expansion of pyrolytic carbon with various textures. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2013, 93, 338-345.	1.6	5

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145	Methane Dry Reforming at High Temperature and Elevated Pressure: Impact of Gas-Phase Reactions. Industrial & Engineering Chemistry Research, 2013, 52, 11920-11930.	3.7	79
146	Catalytic ignition of light hydrocarbons over Rh/Al2O3 studied in a stagnation-point flow reactor. Proceedings of the Combustion Institute, 2013, 34, 2313-2320.	3.9	14
147	Kinetics of hydrogen oxidation on Rh/Al2O3 catalysts studied in a stagnation-flow reactor. Chemical Engineering Science, 2013, 89, 171-184.	3.8	34
148	Critical evaluation of in situ probe techniques for catalytic honeycomb monoliths. Catalysis Today, 2013, 216, 2-10.	4.4	66
149	Numerical Simulation of Catalytic Reactors by Molecular-Based Models. Contributions in Mathematical and Computational Sciences, 2013, , 227-250.	0.3	1
150	Catalytic partial oxidation of ethanol over Rh/Al2O3: Spatially resolved temperature and concentration profiles. Applied Catalysis A: General, 2013, 467, 530-541.	4.3	54
151	Raman microprobe spectrometry of carbon/carbon composites with differentlyâ€textured pyrolytic carbon matrices. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2013, 93, 329-337.	1.6	7
152	Exhaust Gas Aftertreatment in Mobile Systems: Status, Challenges, and Perspectives. Chemie-Ingenieur-Technik, 2013, 85, 595-617.	0.8	83
153	A simple method for CO chemisorption studies under continuous flow: Adsorption and desorption behavior of Pt/Al2O3 catalysts. Applied Catalysis A: General, 2012, 445-446, 221-230.	4.3	42
154	Hydrogen production by partial oxidation of ethanol/gasoline blends over Rh/Al2O3. Catalysis Today, 2012, 197, 90-100.	4.4	11
155	Microstructure characterization of CVI-densified carbon/carbon composites with various fiber distributions. Composites Science and Technology, 2012, 72, 1892-1900.	7.8	53
156	A Model-Based Interpretation of the Influence of Anode Surface Chemistry on Solid Oxide Fuel Cell Electrochemical Impedance Spectra. Journal of the Electrochemical Society, 2012, 159, F255-F266.	2.9	28
157	Catalytic Partial Oxidation of Isooctane to Hydrogen on Rhodium Catalysts: Effect of Tail-Gas Recycling. Industrial & Engineering Chemistry Research, 2012, 51, 7536-7546.	3.7	12
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