FrÃ©dÃ©ric Vogel

List of Publications by Year
in descending order

87 papers	5,098 citations	126907 33 h-index	88630 70 g-index
91 all docs	91 docs citations	91 times ranked	4686 citing authors

#	Article	IF	Citations
1	Thermochemical biofuel production in hydrothermal media: A review of sub- and supercritical water technologies. Energy and Environmental Science, 2008, 1, 32.	30.8	1,709
2	Catalytic gasification of algae in supercritical water for biofuel production and carbon capture. Energy and Environmental Science, 2009, 2, 535.	30.8	202
3	Renewable Production of Methane from Woody Biomass by Catalytic Hydrothermal Gasification. Industrial & Engineering Chemistry Research, 2005, 44, 4543-4551.	3.7	173
4	Critical review of kinetic data for the oxidation of methanol in supercritical water. Journal of Supercritical Fluids, 2005, 34, 249-286.	3.2	138
5	Autothermal methanol reforming for hydrogen production in fuel cell applications. Physical Chemistry Chemical Physics, 2001, 3, 289-293.	2.8	136
6	Thermal decomposition and burning behavior of cellulose treated with ethyl ester phosphoramidates: Effect of alkyl substituent on nitrogen atom. Polymer Degradation and Stability, 2009, 94, 1125-1134.	5.8	130
7	SunCHem: an integrated process for the hydrothermal production of methane from microalgae and CO2 mitigation. Journal of Applied Phycology, 2009, 21, 529-541.	2.8	126
8	Applying spatially resolved concentration and temperature measurements in a catalytic plate reactor for the kinetic study of CO methanation. Journal of Catalysis, 2010, 271, 262-279.	6.2	122
9	Continuous salt precipitation and separation from supercritical water. Part 1: Type 1 salts. Journal of Supercritical Fluids, 2010, 52, 99-112.	3.2	122
10	Phenols and aromatics from fast pyrolysis of variously prepared lignins from hard- and softwoods. Journal of Analytical and Applied Pyrolysis, 2015, 115, 214-223.	5.5	96
11	Synthetic natural gas by hydrothermal gasification of biomass. Journal of Supercritical Fluids, 2007, 43, 91-105.	3.2	91
12	Continuous salt precipitation and separation from supercritical water. Part 2. Type 2 salts and mixtures of two salts. Journal of Supercritical Fluids, 2010, 52, 113-124.	3.2	89
13	The mean oxidation number of carbon (MOC)â€"a useful concept for describing oxidation processes. Water Research, 2000, 34, 2689-2702.	11.3	81
14	Hydrothermal Gasification of Waste Biomass: Process Design and Life Cycle Asessment. Environmental Science & Technology, 2009, 43, 1578-1583.	10.0	73
15	Optimal process design for the polygeneration of SNG, power and heat by hydrothermal gasification of waste biomass: Thermo-economic process modelling and integration. Energy and Environmental Science, 2011, 4, 1726.	30.8	66
16	Tar and coke formation during hydrothermal processing of glycerol and glucose. Influence of temperature, residence time and feed concentration. Journal of Supercritical Fluids, 2012, 70, 126-136.	3.2	65
17	Inâ€…situ Observation of Radicals and Molecular Products During Lignin Pyrolysis. ChemSusChem, 2014, 7, 2022-2029.	6.8	65
18	In situ visualization of the performance of a supercritical-water salt separator using neutron radiography. Journal of Supercritical Fluids, 2008, 43, 490-499.	3.2	62

#	Article	IF	Citations
19	High-Field Electron Paramagnetic Resonance and Density Functional Theory Study of Stable Organic Radicals in Lignin: Influence of the Extraction Process, Botanical Origin, and Protonation Reactions on the Radical g Tensor. Journal of Physical Chemistry A, 2015, 119, 6475-6482.	2.5	62
20	Continuous salt precipitation and separation from supercritical water. Part 3: Interesting effects in processing type 2 salt mixtures. Journal of Supercritical Fluids, 2012, 61, 44-54.	3.2	56
21	Catalysis in supercritical water: Pathway of the methanation reaction and sulfur poisoning over a Ru/C catalyst during the reforming of biomolecules. Journal of Catalysis, 2013, 301, 38-45.	6.2	55
22	Reactor modeling to simulate catalytic partial oxidation and steam reforming of methane. Comparison of temperature profiles and strategies for hot spot minimization. International Journal of Hydrogen Energy, 2007, 32, 1421-1428.	7.1	54
23	Low temperature catalytic partial oxidation of methane for gas-to-liquids applications. Applied Catalysis A: General, 2005, 292, 177-188.	4.3	53
24	Hydrothermal Liquefaction of the Microalgae <i>Phaeodactylum tricornutum</i>: Impact of Reaction Conditions on Product and Elemental Distribution. Energy & Fuels, 2014, 28, 5792-5803.	5.1	53
25	Synthetic natural gas from biomass by catalytic conversion in supercritical water. Green Chemistry, 2007, 9, 616.	9.0	49
26	Catalytic partial oxidation of methane to synthesis gas over a ruthenium catalyst: the role of the oxidation state. Physical Chemistry Chemical Physics, 2007, 9, 1461.	2.8	47
27	Sub- and Supercritical Water Liquefaction of Kraft Lignin and Black Liquor Derived Lignin. Energies, 2020, 13, 3309.	3.1	47
28	Continuous catalytic hydrothermal gasification of algal biomass and case study on toxicity of aluminum as a step toward effluents recycling. Catalysis Today, 2014, 223, 35-43.	4.4	46
29	A computational model for supercritical water oxidation of organic toxic wastes. Journal of Environmental Management, 2000, 4, 75-90.	1.7	42
30	First developments towards closing the nutrient cycle in a biofuel production process. Algal Research, 2015, 8, 76-82.	4.6	42
31	Catalytic Supercritical Water Gasification: Continuous Methanization of <i>Chlorella vulgaris</i>. Industrial & Engineering Chemistry Research, 2017, 56, 6256-6265.	3.7	39
32	Catalytic supercritical water gasification: Interaction of sulfur with ZnO and the ruthenium catalyst. Applied Catalysis B: Environmental, 2017, 202, 262-268.	20.2	36
33	Normal-phase dynamic imaging of supercritical-water salt precipitation using neutron radiography. Journal of Supercritical Fluids, 2009, 49, 71-78.	3.2	35
34	Optimal process design for the polygeneration of SNG, power and heat by hydrothermal gasification of waste biomass: Process optimisation for selected substrates. Energy and Environmental Science, 2011, 4, 1742.	30.8	35
35	Effect of carbon surface functional groups on the synthesis of Ru/C catalysts for supercritical water gasification. Catalysis Science and Technology, 2015, 5, 3658-3666.	4.1	33
36	Deactivation and Regeneration of Sulfonated Carbon Catalysts in Hydrothermal Reaction Environments. ChemSusChem, 2018, 11, 2189-2201.	6.8	33

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37	X-ray Absorption Fine Structure Study of the Effect of Protonation on Disorder and Multiple Scattering in Phosphate Solutions and Solids. Journal of Physical Chemistry A, 2009, 113, 6895-6903.	2.5	30
38	Towards Understanding the Catalytic Reforming of Biomass in Supercritical Water. Angewandte Chemie - International Edition, 2010, 49, 6434-6437.	13.8	29
39	Liquefaction of wood in hot compressed water. Chemical Engineering Science, 2014, 109, 111-122.	3.8	29
40	Review and Performance Evaluation of Fifty Alternative Liquid Fuels for Spark-Ignition Engines. Energy & Fuels, 2019, 33, 2186-2196.	5.1	29
41	Optically accessible channel reactor for the kinetic investigation of hydrocarbon reforming reactions. Catalysis Today, 2006, 116, 348-353.	4.4	28
42	A thermogravimetric study of the partial oxidation of methanol for hydrogen production over a Cu/ZnO/Al2O3 catalyst. Applied Catalysis B: Environmental, 2008, 84, 827-834.	20.2	27
43	A novel salt separator for the supercritical water gasification of biomass. Journal of Supercritical Fluids, 2016, 117, 113-121.	3.2	27
44	Stability and Performance of Ruthenium Catalysts Based on Refractory Oxide Supports in Supercritical Water Conditions. Energy & Fuels, 2013, 27, 4739-4747.	5.1	26
45	Hydrothermal catalytic gasification of fermentation residues from a biogas plant. Biomass and Bioenergy, 2013, 53, 138-148.	5.7	25
46	Chemicals from Lignin by Catalytic Fast Pyrolysis, from Product Control to Reaction Mechanism. Chimia, 2015, 69, 597.	0.6	25
47	Ion Association in Hydrothermal Sodium Sulfate Solutions Studied by Modulated FT-IR-Raman Spectroscopy and Molecular Dynamics. Journal of Physical Chemistry B, 2015, 119, 9847-9857.	2.6	24
48	Recovery of value-added chemicals by solvolysis of unsaturated polyester resin. Journal of Cleaner Production, 2018, 170, 131-136.	9.3	24
49	Catalytic reforming of gasoline to hydrogen: Kinetic investigation of deactivation processes. International Journal of Hydrogen Energy, 2009, 34, 8023-8033.	7.1	23
50	Catalytic autothermal reforming of methane: Performance of a kW scale reformer using pure oxygen as oxidant. Applied Catalysis A: General, 2007, 318, 54-62.	4.3	21
51	Evidence of Scrambling over Rutheniumâ€based Catalysts in Supercriticalâ€water Gasification. ChemCatChem, 2012, 4, 1185-1189.	3.7	21
52	The Influence of Zeolites on Radical Formation During Lignin Pyrolysis. ChemSusChem, 2016, 9, 2397-2403.	6.8	21
53	Catalytic gasification of digestate sludge in supercritical water on the pilot plant scale. Biomass Conversion and Biorefinery, 2017, 7, 415-424.	4.6	20
54	Reforming of methane over noble metal catalysts: Catalyst deactivation induced by thiophene. Catalysis Today, 2009, 143, 9-16.	4.4	19

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55	Ruthenium Dispersion: A Key Parameter for the Stability of Supported Ruthenium Catalysts during Catalytic Supercritical Water Gasification. ChemCatChem, 2016, 8, 139-141.	3.7	18
56	Estimation of Binary Diffusion Coefficients in Supercritical Water: Mini Review. Industrial & Engineering Chemistry Research, 2017, 56, 4847-4855.	3.7	17
57	Equation of state and thermodynamic properties for mixtures of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si38.gif" overflow="scroll"><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:math>, <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si46.gif" overflow="scroll"><mml:msub>	3.2	17
58	Engineering kinetics for hydrothermal oxidation of hazardous organic substances. AICHE Journal, 2002, 48, 1827-1839.	3.6	16
59	High pressure differential scanning calorimetry of the hydrothermal salt solutions K2SO4â€“Na2SO4â€“H2O and K2HPO4â€“H2O. RSC Advances, 2013, 3, 24503.	3.6	16
60	Continuous Hydrothermal Gasification of Glycerol Mixtures: Autothermal Operation, Simultaneous Salt Recovery, and the Effect of K₃PO₄ on the Catalytic Gasification. Industrial & Engineering Chemistry Research, 2014, 53, 8404-8415.	3.7	16
61	Onâ€Stream Regeneration of a Sulfurâ€Poisoned Rutheniumâ€“Carbon Catalyst Under Hydrothermal Gasification Conditions. ChemCatChem, 2014, 6, 626-633.	3.7	13
62	Continuous Extraction of Black Liquor Salts under Hydrothermal Conditions. Industrial & Engineering Chemistry Research, 2021, 60, 4072-4085.	3.7	13
63	Water-in-water tracer studies of supercritical-water reversing jets using neutron radiography. Journal of Supercritical Fluids, 2010, 54, 250-257.	3.2	12
64	Continuous hydrothermal gasification of glycerol mixtures: Effect of glycerol and its degradation products on the continuous salt separation and the enhancing effect of K3PO4 on the glycerol degradation. Journal of Supercritical Fluids, 2014, 95, 364-372.	3.2	12
65	Molecular footprint of co-solvents in hydrothermal liquefaction (HTL) of Fallopia Japonica. Journal of Supercritical Fluids, 2019, 143, 211-222.	3.2	12
66	Oxidative Biphasic Depolymerization (BPD) of Kraft Lignin at Low pH. ChemistrySelect, 2018, 3, 11680-11686.	1.5	11
67	Speciation and Structural Properties of Hydrothermal Solutions of Sodium and Potassium Sulfate Studied by Molecular Dynamics Simulations. ChemPhysChem, 2016, 17, 1446-1453.	2.1	10
68	Investigating active phase loss from supported ruthenium catalysts during supercritical water gasification. Catalysis Science and Technology, 2021, 11, 7431-7444.	4.1	10
69	Phase transitions in hydrothermal K2HPO4 solutions. Journal of Supercritical Fluids, 2011, 57, 207-212.	3.2	9
70	High Yields of Aromatic Monomers from Acidolytic Oxidation of Kraft Lignin in a Biphasic System. Industrial & Engineering Chemistry Research, 2021, 60, 11009-11018.	3.7	9
71	Link-up of a bench-scale â€œshift-lessâ€• gasoline fuel processor to a polymer electrolyte fuel cell. Journal of Power Sources, 2006, 159, 1034-1041.	7.8	8
72	Hydrothermal Oxidation of Fecal Sludge: Experimental Investigations and Kinetic Modeling. Industrial & Engineering Chemistry Research, 2016, 55, 11910-11922.	3.7	8

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73	Performance evaluation of gasoline alternatives using a thermodynamic spark-ignition engine model. Sustainable Energy and Fuels, 2017, 1, 1991-2005.	4.9	7
74	Gasification and liquefaction of solid fuels by hydrothermal conversion methods. Journal of Analytical and Applied Pyrolysis, 2014, 108, 265-273.	5.5	6
75	Mechanochemistry-assisted hydrolysis of softwood over stable sulfonated carbon catalysts in a semi-batch process. RSC Advances, 2019, 9, 33525-33538.	3.6	6
76	Optimum Fuel for Spark Ignition Engines from Lignin Pyrolysis Oil. Energy & Fuels, 2018, 32, 9388-9398.	5.1	5
77	Deactivation of Methanation Catalyst (Ru/C) Under Supercritical Water by Deposition of Nonâ€Volatile Organics: First Insights Into Deposition Patterns and Chemical Properties. ChemCatChem, 2019, 11, 1747-1755.	3.7	5
78	Fuels for Fuel Cells: Requirements and Fuel Processing. Chimia, 2004, 58, 887-895.	0.6	4
79	Fate and reuse of nitrogen-containing organics from the hydrothermal conversion of algal biomass. Algal Research, 2018, 32, 241-249.	4.6	4
80	Advanced Analytical Study of Process Streams for a Rational Optimization of Hydrothermal Gasification. ACS Engineering Au, 2021, 1, 134-147.	5.1	3
81	Deactivation of Sewage Sludge by Wet Oxidation (WO) Using the LOPROX Process: A Complete Wastewater Plant/WO System with an Analysis of Wet Oxidation Products. Chemical Engineering and Technology, 1998, 21, 880-885.	1.5	2
82	Corrigendum to â€œApplying spatially resolved concentration and temperature measurements in a catalytic plate reactor for the kinetic study of CO methanationâ€•[J. Catal. 271 (2010) 262â€“279]. Journal of Catalysis, 2010, 273, 82.	6.2	2
83	Hydrothermale Verfahren. , 2016, , 1267-1337.		1
84	Inertisierung von KlÃrschlamm durch NaÃŸoxidation (NO) nach dem LOPROX-Verfahren. Chemie-Ingenieur-Technik, 1998, 70, 898-902.	0.8	0
85	Editorial thematic issue BCAB. Biomass Conversion and Biorefinery, 2017, 7, 399-400.	4.6	0
86	Hydrothermal Conversion of Biomass. , 2019, , 1251-1295.		0
87	Hydrothermal Conversion of Biomass. , 2017, , 1-46.		0