

Karsten MÃ¼ller

List of Publications by Year in descending order

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102
papers

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citations

172386

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168321

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106
docs citations

106
times ranked

2196
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon Dioxide Solubility in Nonionic Deep Eutectic Solvents Containing Phenolic Alcohols. <i>Frontiers in Chemistry</i> , 2022, 10, 864663.	1.8	12
2	Development of an efficient Pt/SiO ₂ catalyst for the transfer hydrogenation from perhydro-dibenzyltoluene to acetone. <i>Applied Catalysis A: General</i> , 2022, 639, 118644.	2.2	11
3	Thermochemical properties of 6,7-benzindole and its perhydrogenated derivative: A model component for liquid organic hydrogen carriers. <i>Fuel</i> , 2022, 324, 124410.	3.4	6
4	Acceptorless Dehydrogenation of Amines to Nitriles for Hydrogen Storage: Reality or Wishful Thinking?. <i>Energy Technology</i> , 2022, 10, .	1.8	1
5	Pressurized hydrogen from charged liquid organic hydrogen carrier systems by electrochemical hydrogen compression. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 15624-15634.	3.8	19
6	Strategies for Low-Temperature Liquid Organic Hydrogen Carrier Dehydrogenation. <i>Energy & Fuels</i> , 2021, 35, 10929-10936.	2.5	18
7	Technical reliability of shipboard technologies for the application of alternative fuels. <i>Energy, Sustainability and Society</i> , 2021, 11, .	1.7	5
8	The 2-Propanol Fuel Cell: A Review from the Perspective of a Hydrogen Energy Economy. <i>Energy Technology</i> , 2021, 9, 2100164.	1.8	19
9	Experimental determination of the hydrogenation/dehydrogenation - Equilibrium of the LOHC system H ₀ /H ₁₈ -dibenzyltoluene. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 32583-32594.	3.8	29
10	Evaluation of the Efficiency of an Elevated Temperature Proton Exchange Membrane Water Electrolysis System. <i>Journal of the Electrochemical Society</i> , 2021, 168, 094504.	1.3	15
11	Reliability of Thermal Energy Storage Technologies. <i>Chemie-Ingenieur-Technik</i> , 2021, 93, 580-584.	0.4	0
12	Correction to "Thermophysical Studies of Dibenzyltoluene and Its Partially and Fully Hydrogenated Derivatives". <i>Journal of Chemical & Engineering Data</i> , 2021, 66, 858-858.	1.0	0
13	Thermochemical Properties and Dehydrogenation Thermodynamics of Indole Derivates. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 20539-20550.	1.8	17
14	Assessment of the reliability of vanadium redox flow batteries. <i>Engineering Reports</i> , 2020, 2, e12254.	0.9	3
15	Highly efficient, low-temperature hydrogen release from perhydro-benzyltoluene using reactive distillation. <i>Energy and Environmental Science</i> , 2020, 13, 3119-3128.	15.6	50
16	Water Removal from LOHC Systems. <i>Hydrogen</i> , 2020, 1, 1-10.	1.7	1
17	Reliability of liquid organic hydrogen carrier-based energy storage in a mobility application. <i>Energy Science and Engineering</i> , 2020, 8, 2044-2053.	1.9	16
18	Technologies for the Storage of Hydrogen Part 1: Hydrogen Storage in the Narrower Sense. <i>ChemBioEng Reviews</i> , 2019, 6, 72-80.	2.6	18

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19	Technologies for the Storage of Hydrogen. Part 2: Irreversible Conversion and Comparison. ChemBioEng Reviews, 2019, 6, 81-89.	2.6	10
20	Evaluations of Concepts for the Integration of Fuel Cells in Liquid Organic Hydrogen Carrier Systems. Energy & Fuels, 2019, 33, 10324-10330.	2.5	43
21	Rheological Behavior of Mixtures of Ionic Liquids with Water. Chemical Engineering and Technology, 2018, 41, 819-826.	0.9	1
22	Study of the Crystallization and Melting Behavior of a Latent Heat Storage by Computed Tomography. Chemie-Ingenieur-Technik, 2018, 90, 366-371.	0.4	5
23	Experimental Study of MgCl ₂ ·6H ₂ O as Thermochemical Energy Storage Material. Energy Technology, 2018, 6, 1935-1940.	1.8	14
24	Hydrogenation of the Liquid Organic Hydrogen Carrier Compound Monobenzyl Toluene: Reaction Pathway and Kinetic Effects. Energy Technology, 2018, 6, 513-520.	1.8	52
25	Resilience of Liquid Organic Hydrogen Carrier Based Energy Storage Systems. Energy Technology, 2018, 6, 529-539.	1.8	22
26	ACHEMA 2018 - Energie. Chemie-Ingenieur-Technik, 2018, 90, 1919-1928.	0.4	0
27	Thermophysical Studies of Dibenzyltoluene and Its Partially and Fully Hydrogenated Derivatives. Journal of Chemical & Engineering Data, 2018, 63, 4580-4587.	1.0	36
28	Neue Analysemethoden für latente thermische Energiespeicher. Chemie-Ingenieur-Technik, 2018, 90, 1139-1139.	0.4	0
29	Releasing Hydrogen at High Pressures from Liquid Carriers: Aspects for the H ₂ Delivery to Fueling Stations. Energy & Fuels, 2018, 32, 10008-10015.	2.5	25
30	Solubility of Carbon Dioxide, Methane, and Nitrogen in Liquid Dibenzyl Toluene. Journal of Chemical & Engineering Data, 2018, 63, 3527-3533.	1.0	7
31	Probability density distribution in the prediction of reaction equilibria. Fluid Phase Equilibria, 2017, 437, 96-102.	1.4	1
32	Dynamic power supply by hydrogen bound to a liquid organic hydrogen carrier. Applied Energy, 2017, 194, 1-8.	5.1	92
33	Influence of different adsorbates on the efficiency of thermochemical energy storage. Energy Science and Engineering, 2017, 5, 21-29.	1.9	11
34	Material development and assessment of an energy storage concept based on the CaO-looping process. Solar Energy, 2017, 150, 298-309.	2.9	51
35	Analysis of the Potential for Improvement of Chemical Energy Transformation Processes. Chemical Engineering and Technology, 2017, 40, 1115-1123.	0.9	0
36	Temperature independent description of water adsorption on zeotypes showing a type V adsorption isotherm. Energy, 2017, 135, 227-236.	4.5	24

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37	Hydrogen storage using a hot pressure swing reactor. <i>Energy and Environmental Science</i> , 2017, 10, 1652-1659.	15.6	131
38	Hydrogen Storage in Formic Acid: A Comparison of Process Options. <i>Energy & Fuels</i> , 2017, 31, 12603-12611.	2.5	94
39	Integration of a LOHC storage into a heat-controlled CHP system. <i>Energy</i> , 2017, 118, 1123-1130.	4.5	26
40	Measurement of Micro Kinetics of Hydrogenation in Liquid Phase Using Raman Spectroscopy. <i>Chemical Engineering and Technology</i> , 2017, 40, 56-63.	0.9	0
41	Thermodynamic Evaluation and Carbon Footprint Analysis of the Application of Hydrogen-Based Energy Storage Systems in Residential Buildings. <i>Energy Technology</i> , 2017, 5, 495-509.	1.8	21
42	Storage of low grade solar thermal energy by adsorption of organics. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	1
43	A novel thermochemical energy storage and transportation concept based on concentrated solar irradiation-aided CaO-looping. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	6
44	Coupling of a Liquid Organic Hydrogen Carrier System with Industrial Heat. <i>Chemical Engineering and Technology</i> , 2016, 39, 1570-1574.	0.9	21
45	Energetic evaluation of hydrogen storage in metal hydrides. <i>International Journal of Energy Research</i> , 2016, 40, 1820-1831.	2.2	37
46	Combined Experimental and Predictive Uncertainty of Quantitative Structure Property Relationship Models. <i>Chemical Engineering and Technology</i> , 2016, 39, 365-370.	0.9	4
47	Energy Storage and Transportation Based on Solar Irradiation-Aided CaO-Looping. <i>Energy Technology</i> , 2016, 4, 123-135.	1.8	4
48	Melting Points of Potential Liquid Organic Hydrogen Carrier Systems Consisting of <i>N</i> -Alkylcarbazoles. <i>Journal of Chemical & Engineering Data</i> , 2016, 61, 1441-1448.	1.0	52
49	Storing surplus solar energy in low temperature thermal storage for refrigeration applications. <i>Energy and Buildings</i> , 2016, 122, 192-198.	3.1	18
50	Experimental assessment of the degree of hydrogen loading for the dibenzyl toluene based LOHC system. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 22097-22103.	3.8	72
51	Thermo-Ökologische Bewertung trägerbasierter Wasserstoffspeichertechnologien. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 1269-1270.	0.4	0
52	Dynamische Energiefreisetzung aus Wasserstoffträgermaterialien. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 1270-1271.	0.4	0
53	Dezentrale Wasserstoffbereitstellung durch Reformierung oder durch LOHC - Ein energetisch-Ökologischer Vergleich. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 1259-1260.	0.4	1
54	Einfluss unterschiedlicher Stoffpaare auf den Wirkungsgrad thermochemischer Sorptionsenergiespeicher. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 1266-1266.	0.4	0

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55	Entwicklung eines skalierbaren Brenners zum Betrieb mit reinem Wasserstoff. Chemie-Ingenieur-Technik, 2016, 88, 1508-1512.	0.4	2
56	Prozessoptimierung durch Analyse der Abhängigkeiten der Parameter. Chemie-Ingenieur-Technik, 2016, 88, 1269-1269.	0.4	0
57	Hydrogenation of the liquid organic hydrogen carrier compound dibenzyltoluene " reaction pathway determination by ¹ H NMR spectroscopy. Reaction Chemistry and Engineering, 2016, 1, 313-320.	1.9	87
58	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers. Journal of Chemical & Engineering Data, 2016, 61, 643-649.	1.0	46
59	Thermodynamic analysis of reversible hydrogenation for heat storage in concentrated solar power plants. Solar Energy, 2016, 123, 40-50.	2.9	10
60	Development of a liquid chromatographic method for the separation of a liquid organic hydrogen carrier mixture. Separation and Purification Technology, 2016, 163, 140-144.	3.9	17
61	Chemical utilization of hydrogen from fluctuating energy sources " Catalytic transfer hydrogenation from charged Liquid Organic Hydrogen Carrier systems. International Journal of Hydrogen Energy, 2016, 41, 1010-1017.	3.8	101
62	Hydrogen Storage: Thermochemical Studies of <i>N</i> -Alkylcarbazoles and Their Derivatives as a Potential Liquid Organic Hydrogen Carriers. Journal of Physical Chemistry C, 2015, 119, 26381-26389.	1.5	62
63	Energetische Evaluierung von Kältespeichern und Abwärmenutzung für Kälte- und Gefrieranwendungen. Chemie-Ingenieur-Technik, 2015, 87, 957-965.	0.4	2
64	ACHEMA-Nachbericht: ACHEMA 2015 - Energie. Chemie-Ingenieur-Technik, 2015, 87, 1297-1303.	0.4	0
65	Thermodynamic analysis of chemical heat pumps. Energy, 2015, 88, 489-496.	4.5	18
66	Experimental Study of Solubility of Water in Liquid Organic Hydrogen Carriers. Journal of Chemical & Engineering Data, 2015, 60, 1997-2002.	1.0	13
67	Liquid Organic Hydrogen Carriers: Thermophysical and Thermochemical Studies of Benzyl- and Dibenzyl-toluene Derivatives. Industrial & Engineering Chemistry Research, 2015, 54, 7967-7976.	1.8	196
68	Liquid Organic Hydrogen Carriers: Thermophysical and Thermochemical Studies of Carbazole Partly and Fully Hydrogenated Derivatives. Industrial & Engineering Chemistry Research, 2015, 54, 7953-7966.	1.8	66
69	Energy Transport and Storage using Methanol as a Carrier. Green, 2014, 4, .	0.4	8
70	Thermodynamic Constraints for the Utilization of CO ₂ . Chemie-Ingenieur-Technik, 2014, 86, 497-503.	0.4	43
71	Verfahrenstechnische Aspekte der Herstellung von Photovoltaikmodulen. Chemie-Ingenieur-Technik, 2014, 86, 1532-1532.	0.4	1
72	Methacrylic acid by carboxylation of propene with CO ₂ over POM catalysts " Reality or wishful thinking?. Catalysis Communications, 2014, 48, 19-23.	1.6	3

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73	An Estimation Method for Thermal Conductivity in the Fluid Phase. <i>Journal of Chemical & Engineering Data</i> , 2014, 59, 946-953.	1.0	7
74	A Group Contribution Method for the Thermal Properties of Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 17522-17526.	1.8	31
75	Thermal conductivity of Ionic Liquids: An estimation approach. <i>Chemical Engineering Science</i> , 2014, 119, 109-113.	1.9	28
76	Contribution of the Individual Ions to the Heat Capacity of Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 10343-10346.	1.8	20
77	Efficiency of low-temperature adsorptive hydrogen storage systems. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 15604-15613.	3.8	16
78	Synthesis and Application of Carbonated Fatty Acid Esters from Carbon Dioxide Including a Life Cycle Analysis. <i>ChemSusChem</i> , 2014, 7, 1133-1139.	3.6	57
79	Evaluation of Formic-Acid-Based Hydrogen Storage Technologies. <i>Energy & Fuels</i> , 2014, 28, 6540-6544.	2.5	35
80	Shortcut Evaluation of Chemical Carbon Dioxide Utilization Processes. <i>Chemical Engineering and Technology</i> , 2014, 37, 1612-1615.	0.9	9
81	Increasing the Equilibrium Yield of Oxidative Dehydrogenation with CO ₂ by Secondary Reactions. <i>Chemical Engineering and Technology</i> , 2014, 37, 1261-1264.	0.9	3
82	Sabatier-based CO ₂ -methanation by catalytic conversion. <i>Environmental Earth Sciences</i> , 2013, 70, 3771-3778.	1.3	58
83	Reversible vs. Irreversible Conversion of Hydrogen: How to Store Energy Efficiently?. <i>Energy Technology</i> , 2013, 1, 42-47.	1.8	2
84	Thermodynamic Evaluation of Potential Organic Hydrogen Carriers. <i>Energy Technology</i> , 2013, 1, 20-24.	1.8	74
85	Status and Development in Hydrogen Transport and Storage for Energy Applications. <i>Energy Technology</i> , 2013, 1, 501-511.	1.8	51
86	Powering Planet Earth. Von N. Armaroli, V. Balzani, N. Serpone.. <i>Chemie-Ingenieur-Technik</i> , 2013, 85, 1468-1468.	0.4	0
87	Reversible vs. Irreversible Conversion of Hydrogen: How to Store Energy Efficiently?. <i>Energy Technology</i> , 2013, 1, 42-47.	1.8	10
88	Energy storage in residential and commercial buildings via Liquid Organic Hydrogen Carriers (LOHC). <i>Energy and Environmental Science</i> , 2012, 5, 9044.	15.6	175
89	Amine Borane Based Hydrogen Carriers: An Evaluation. <i>Energy & Fuels</i> , 2012, 26, 3691-3696.	2.5	49
90	Dimethyl carbonate via transesterification of propylene carbonate with methanol over ion exchange resins. <i>Applied Catalysis B: Environmental</i> , 2012, 125, 486-491.	10.8	49

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91	ACHEMA 2012 - Energie. Chemie-Ingenieur-Technik, 2012, 84, 1462-1465.	0.4	0
92	Second-Order Group Contribution Method for the Determination of the Dipole Moment. Journal of Chemical & Engineering Data, 2012, 57, 1231-1236.	1.0	10
93	A Priori Property Estimation of Physical and Reactive CO ₂ Absorbents. Chemical Engineering and Technology, 2012, 35, 579-583.	0.9	20
94	Hydration of Saccharides: Estimation of Reaction Properties and Equilibrium Conversion. Chemical Engineering and Technology, 2012, 35, 735-742.	0.9	1
95	Energetische Betrachtung der Wasserstoffeinspeisung ins Erdgasnetz. Chemie-Ingenieur-Technik, 2012, 84, 1513-1519.	0.4	14
96	Vorhersage von Stoffgrößen mithilfe nicht additiver Gruppenbeitragsmethoden. Chemie-Ingenieur-Technik, 2012, 84, 1369-1369.	0.4	0
97	Ionische Flüssigkeiten zur Erhöhung der Gleichgewichtsausbeute oxidativer Dehydrierungen - Ein Screening. Chemie-Ingenieur-Technik, 2012, 84, 1243-1244.	0.4	1
98	A future energy supply based on Liquid Organic Hydrogen Carriers (LOHC). Energy and Environmental Science, 2011, 4, 2767.	15.6	415
99	Estimation of Thermodynamic Properties of Polysaccharides. Chemical Engineering and Technology, 2011, 34, 867-876.	0.9	6
100	Energy Storage by CO ₂ Methanization and Energy Carrying Compounds: A Thermodynamic Comparison. Chemie-Ingenieur-Technik, 2011, 83, 2002-2013.	0.4	68
101	Heat Integration and Storage Concepts for Increasing the Energy Efficiency in Domestic Households. Advanced Engineering Forum, 0, 19, 50-58.	0.3	1
102	Effect of the Reliability on the Success of Hydrogen Technologies. Chemical Engineering and Technology, 0, , .	0.9	1