Johannes Hendrik Bitter

List of Publications by Year
in descending order

117 papers	11,133 citations	44069 48 h-index	29157 104 g-index
122 all docs	122 docs citations	122 times ranked	10878 citing authors

#	Article	IF	Citations
1	Cobalt Particle Size Effects in the Fischerâˆ’Tropsch Reaction Studied with Carbon Nanofiber Supported Catalysts. Journal of the American Chemical Society, 2006, 128, 3956-3964.	13.7	1,318
2	Supported Iron Nanoparticles as Catalysts for Sustainable Production of Lower Olefins. Science, 2012, 335, 835-838.	12.6	1,001
3	Generation, Characterization, and Impact of Mesopores in Zeolite Catalysts. Catalysis Reviews - Science and Engineering, 2003, 45, 297-319.	12.9	743
4	On the Origin of the Cobalt Particle Size Effects in Fischerâˆ’Tropsch Catalysis. Journal of the American Chemical Society, 2009, 131, 7197-7203.	13.7	699
5	Electrocatalytic Activity and Stability of Nitrogen-Containing Carbon Nanotubes in the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2009, 113, 14302-14310.	3.1	530
6	Iron Particle Size Effects for Direct Production of Lower Olefins from Synthesis Gas. Journal of the American Chemical Society, 2012, 134, 16207-16215.	13.7	390
7	Impact of the structure and reactivity of nickel particles on the catalytic growth of carbon nanofibers. Catalysis Today, 2002, 76, 33-42.	4.4	337
8	The influence of oxidation on the texture and the number of oxygen-containing surface groups of carbon nanofibers. Carbon, 2004, 42, 307-315.	10.3	288
9	Reaction Pathways for the Deoxygenation of Vegetable Oils and Related Model Compounds. ChemSusChem, 2013, 6, 1576-1594.	6.8	267
10	Sodium Alanate Nanoparticles âˆ’ Linking Size to Hydrogen Storage Properties. Journal of the American Chemical Society, 2008, 130, 6761-6765.	13.7	220
11	Effects of sodium and sulfur on catalytic performance of supported iron catalysts for the Fischerâ€"Tropsch synthesis of lower olefins. Journal of Catalysis, 2013, 303, 22-30.	6.2	217
12	Phosphorus Induced Electron Localization of Single Iron Sites for Boosted CO₂ Electroreduction Reaction. Angewandte Chemie - International Edition, 2021, 60, 23614-23618.	13.8	197
13	Deposition Precipitation for the Preparation of Carbon Nanofiber Supported Nickel Catalysts. Journal of the American Chemical Society, 2005, 127, 13573-13582.	13.7	196
14	Carbon Nanofiber Supported Transitionâ€Metal Carbide Catalysts for the Hydrodeoxygenation of Guaiacol. ChemCatChem, 2013, 5, 2964-2972.	3.7	180
15	Design of supported cobalt catalysts with maximum activity for the Fischerâ€"Tropsch synthesis. Journal of Catalysis, 2010, 270, 146-152.	6.2	170
16	Deoxygenation of biobased molecules by decarboxylation and decarbonylation â€" a review on the role of heterogeneous, homogeneous and bio-catalysis. Green Chemistry, 2015, 17, 3231-3250.	9.0	167
17	Comparison of Tungsten and Molybdenum Carbide Catalysts for the Hydrodeoxygenation of Oleic Acid. ACS Catalysis, 2013, 3, 2837-2844.	11.2	163
18	Particle size effects for carbon nanofiber supported platinum and ruthenium catalysts for the selective hydrogenation of cinnamaldehyde. Applied Catalysis A: General, 2008, 351, 9-15.	4.3	159

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19	Cu-ZSM-5 Zeolites for the Formation of Methanol from Methane and Oxygen: Probing the Active Sites and Spectator Species. Catalysis Letters, 2010, 138, 14-22.	2.6	152
20	Cobalt particle size effects on catalytic performance for ethanol steam reforming â€“ Smaller is better. Journal of Catalysis, 2014, 318, 67-74.	6.2	134
21	Structureâ€“performance relations of molybdenum- and tungsten carbide catalysts for deoxygenation. Green Chemistry, 2015, 17, 582-593.	9.0	121
22	Deactivation of solid acid catalysts for butene skeletal isomerisation: on the beneficial and harmful effects of carbonaceous deposits. Applied Catalysis A: General, 2001, 212, 97-116.	4.3	116
23	Tungstenâ€Based Catalysts for Selective Deoxygenation. Angewandte Chemie - International Edition, 2013, 52, 5089-5092.	13.8	115
24	Copper Nitrate Redispersion To Arrive at Highly Active Silica-Supported Copper Catalysts. Journal of Physical Chemistry C, 2011, 115, 14698-14706.	3.1	112
25	Preparation of Carbon Nanofiber Supported Platinum and Ruthenium Catalysts:â€‰ Comparison of Ion Adsorption and Homogeneous Deposition Precipitation. Journal of Physical Chemistry B, 2004, 108, 11611-11619.	2.6	109
26	Support effects in hydrogenation of cinnamaldehyde over carbon nanofiber-supported platinum catalysts: Kinetic modeling. Chemical Engineering Science, 2005, 60, 5682-5695.	3.8	105
27	On the Nature of Oxygen-Containing Surface Groups on Carbon Nanofibers and Their Role for Platinum Depositionâ€”An XPS and Titration Study. Journal of Physical Chemistry C, 2009, 113, 9865-9869.	3.1	104
28	Nanostructured carbons in catalysis a Janus materialâ€”industrial applicability and fundamental insights. Journal of Materials Chemistry, 2010, 20, 7312.	6.7	102
29	Support and Size Effects of Activated Hydrotalcites for Precombustion CO₂Capture. Industrial & Engineering Chemistry Research, 2010, 49, 1229-1235.	3.7	98
30	Oxidation of methane to methanol and formaldehyde over Coâ€“ZSM-5 molecular sieves: Tuning the reactivity and selectivity by alkaline and acid treatments of the zeolite ZSM-5 agglomerates. Microporous and Mesoporous Materials, 2011, 138, 176-183.	4.4	96
31	Kinetics and mechanism of 5-hydroxymethylfurfural oxidation and their implications for catalyst development. Journal of Molecular Catalysis A, 2014, 388-389, 123-132.	4.8	89
32	On the Nature and Accessibility of the BrÃ¸nsted-Base Sites in Activated Hydrotalcite Catalysts. Journal of Physical Chemistry B, 2006, 110, 9211-9218.	2.6	88
33	Partial Oxidation of Methane Over Co-ZSM-5: Tuning the Oxygenate Selectivity by Altering the Preparation Route. Catalysis Letters, 2010, 136, 52-56.	2.6	88
34	Active Ti Species in TiCl3-Doped NaAlH4. Mechanism for Catalyst Deactivation. Journal of Physical Chemistry C, 2007, 111, 2797-2802.	3.1	86
35	Understanding of Enhanced Oxygen Storage Capacity in Ce0.5Zr0.5O2:Â The Presence of an Anharmonic Pair Distribution Function in the Zrâˆ'O2Subshell as Analyzed by XAFS Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 4810-4815.	2.6	82
36	The Nature of the Ptâˆ'H Bonding for Strongly and Weakly Bonded Hydrogen on Platinum. A XAFS Spectroscopy Study of the Ptâˆ'H Antibonding Shaperesonance and Ptâˆ'H EXAFS. Journal of Physical Chemistry B, 2001, 105, 4616-4622.	2.6	77

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37	Effect of precursor on the catalytic performance of supported iron catalysts for the Fischerâ€“Tropsch synthesis of lower olefins. Catalysis Today, 2013, 215, 95-102.	4.4	76
38	The role of Ni in increasing the reversibility of the hydrogen release from nanoconfined LiBH4. Faraday Discussions, 2011, 151, 47.	3.2	61
39	Effects of loading and synthesis method of titania-supported cobalt catalysts for Fischerâ€“Tropsch synthesis. Catalysis Today, 2014, 228, 89-95.	4.4	61
40	A Highly Active and Selective Manganese Oxide Promoted Cobalt-on-Silica Fischerâ€“Tropsch Catalyst. Topics in Catalysis, 2011, 54, 768-777.	2.8	57
41	Influence of synthesis method on molybdenum carbide crystal structure and catalytic performance in stearic acid hydrodeoxygenation. Applied Catalysis B: Environmental, 2019, 241, 81-88.	20.2	57
42	On the Influence and Role of Alkali Metals on Supported and Unsupported Activated Hydrotalcites for CO₂ Sorption. Industrial & Engineering Chemistry Research, 2010, 49, 8086-8093.	3.7	54
43	The Future of Ethenolysis in Biobased Chemistry. ChemSusChem, 2017, 10, 470-482.	6.8	54
44	Not sequentially but simultaneously: Facile extraction of proteins and oleosomes from oilseeds. Food Hydrocolloids, 2020, 102, 105598.	10.7	54
45	Thin layer of carbon-nano-fibers (CNFs) as catalyst support for fast mass transfer in hydrogenation of nitrite. Applied Catalysis A: General, 2010, 383, 24-32.	4.3	53
46	Toward stable nickel catalysts for aqueous phase reforming of biomass-derived feedstock under reducing and alkaline conditions. Journal of Catalysis, 2014, 319, 27-35.	6.2	53
47	Pea flour as stabilizer of oil-in-water emulsions: Protein purification unnecessary. Food Hydrocolloids, 2020, 101, 105533.	10.7	51
48	Ligand control in thiol stabilized Au38 clusters. RSC Advances, 2012, 2, 2276.	3.6	50
49	Functionalized Carbon Nanofibers as Solidâ€Acid Catalysts for Transesterification. ChemSusChem, 2013, 6, 1668-1672.	6.8	49
50	How NO Affects Nickel and Cobalt Nitrates at Low Temperatures To Arrive at Highly Dispersed Silica-Supported Nickel and Cobalt Catalysts. Journal of Physical Chemistry C, 2011, 115, 3332-3339.	3.1	48
51	Analysis of sustainability metrics and application to the catalytic production of higher alcohols from ethanol. Catalysis Today, 2015, 239, 56-79.	4.4	45
52	On the Emulsifying Properties of Self-Assembled Pea Protein Particles. Langmuir, 2020, 36, 12221-12229.	3.5	45
53	Activity of Nitrogen Containing Carbon Nanotubes in Base Catalyzed Knoevenagel Condensation. Topics in Catalysis, 2009, 52, 1575-1583.	2.8	42
54	Transformations of polyols to organic acids and hydrogen in aqueous alkaline media. Catalysis Science and Technology, 2014, 4, 2353-2366.	4.1	41

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55	The structural role of the copper-coordinating and surface-exposed histidine residue in the blue copper protein azurin 1 1Edited by R. Huber. Journal of Molecular Biology, 2000, 299, 737-755.	4.2	37
56	Butene skeletal isomerization over H-ferrierite: a TEOM and in situ IR study on the role of carbonaceous deposits and the location of BrÃ¸nsted acid sites. Applied Catalysis A: General, 2002, 237, 149-159.	4.3	37
57	Oxidative steam reforming of ethanol over carbon nanofiber supported Co catalysts. Catalysis Today, 2011, 164, 262-267.	4.4	37
58	Selective deoxygenation of stearic acid via an anhydride pathway. RSC Advances, 2012, 2, 9387.	3.6	35
59	Enhancing the Activity of Pd on Carbon Nanofibers for Deoxygenation of Amphiphilic Fatty Acid Molecules through Support Polarity. ACS Catalysis, 2013, 3, 2397-2402.	11.2	34
60	Cu K-Edge EXAFS Characterisation of Copper(I) Arenethiolate Complexes in both the Solid and Liquid State: Detection of Cuï£¿Cu Coordination. Chemistry - A European Journal, 2002, 8, 5667-5678.	3.3	31
61	Dehydrogenation of hydroxymatairesinol to oxomatairesinol over carbon nanofibre-supported palladium catalysts. Journal of Molecular Catalysis A, 2007, 274, 42-49.	4.8	31
62	High Rate Biomethanation of Carbon Monoxide-Rich Gases via a Thermophilic Synthetic Coculture. ACS Sustainable Chemistry and Engineering, 2018, 6, 2169-2176.	6.7	31
63	Adsorption of rapeseed proteins at oil/water interfaces. Janus-like napins dominate the interface. Journal of Colloid and Interface Science, 2021, 583, 459-469.	9.4	31
64	Title is missing!. Topics in Catalysis, 2001, 16/17, 363-368.	2.8	30
65	Synthesis of Furandicarboxylic Acid Esters From Nonfood Feedstocks Without Concomitant Levulinic Acid Formation. ChemSusChem, 2017, 10, 1460-1468.	6.8	28
66	Effect of initial nickel particle size on stability of nickel catalysts for aqueous phase reforming. Journal of Energy Chemistry, 2016, 25, 289-296.	12.9	27
67	Probing the Accessible Sites for n-Butene Skeletal Isomerization over Aged and Selective H-Ferrierite with d3-Acetonitrile. Journal of Catalysis, 2002, 212, 86-93.	6.2	25
68	Stability of Transitionâ€metal Carbides in Liquid Phase Reactions Relevant for Biomassâ€Based Conversion. ChemCatChem, 2015, 7, 2816-2823.	3.7	23
69	Jammed Emulsions with Adhesive Pea Protein Particles for Elastoplastic Edible 3D Printed Materials. Advanced Functional Materials, 2021, 31, 2101749.	14.9	23
70	The influence of acidity of carbon nanofibre-supported palladium catalysts in the hydrogenolysis of hydroxymatairesinol. Catalysis Letters, 2007, 113, 141-146.	2.6	22
71	Phosphorus Induced Electron Localization of Single Iron Sites for Boosted CO₂ Electroreduction Reaction. Angewandte Chemie, 2021, 133, 23806-23810.	2.0	22
72	Catalytic Hydrogenâ€Chlorine Exchange between Chlorinated Hydrocarbons under Oxygenâ€Free Conditions. Angewandte Chemie - International Edition, 2008, 47, 5002-5004.	13.8	21

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73	Mechanochemical Immobilisation of Metathesis Catalysts in a Metalâ€“Organic Framework. Chemistry - A European Journal, 2016, 22, 15437-15443.	3.3	21
74	Isomalto/malto-polysaccharide structure in relation to the structural properties of starch substrates. Carbohydrate Polymers, 2018, 185, 179-186.	10.2	21
75	Digestibility of resistant starch type 3 is affected by crystal type, molecular weight and molecular weight distribution. Carbohydrate Polymers, 2021, 265, 118069.	10.2	21
76	Pd L3edge XANES investigation of the electronic and geometric structure of Pd/Agâ€“H membranes. Physical Chemistry Chemical Physics, 2004, 6, 3903-3906.	2.8	20
77	Supported La₂O₃ and MgO Nanoparticles as Solid Base Catalysts for Aldol Reactions While Suppressing Dehydration at Room Temperature. ChemCatChem, 2013, 5, 594-600.	3.7	20
78	Molybdenum and tungsten carbides can shine too. Catalysis Science and Technology, 2020, 10, 6089-6097.	4.1	20
79	Recent Advances in Polybenzimidazole Membranes for Hydrogen Purification. Industrial & Engineering Chemistry Research, 2022, 61, 6125-6134.	3.7	20
80	Enzymatic fingerprinting of isomalto/malto-polysaccharides. Carbohydrate Polymers, 2019, 205, 279-286.	10.2	19
81	Carbon Nanofiber-Supported K₂CO₃ as an Efficient Low-Temperature Regenerable CO₂ Sorbent for Post-Combustion Capture. Industrial & Engineering Chemistry Research, 2013, 52, 12812-12818.	3.7	18
82	DRIFTS/MS/Isotopic Labeling Study on the NO-Moderated Decomposition of a Silica-Supported Nickel Nitrate Catalyst Precursor. Journal of Physical Chemistry C, 2010, 114, 7839-7845.	3.1	17
83	Lanthanum Oxide Supported on Carbon Nanofibers as Solid Base Catalysts. ChemCatChem, 2011, 3, 1193-1199.	3.7	16
84	Lactose oxidation over palladium catalysts supported on active carbons and on carbon nanofibres. Research on Chemical Intermediates, 2009, 35, 155-174.	2.7	14
85	Reducibility of Platinum Supported on Nanostructured Carbons. Topics in Catalysis, 2009, 52, 424-430.	2.8	14
86	Influence of Reaction Parameters on the Hydrogenolysis of Hydroxymatairesinol Over Carbon Nanofibre Supported Palladium Catalysts. Catalysis Letters, 2008, 125, 8-13.	2.6	13
87	Selective terminal Câ€“C scission of C5-carbohydrates. Green Chemistry, 2015, 17, 3900-3909.	9.0	13
88	Conversion of polyhydroxyalkanoates to methyl crotonate using whole cells. Bioresource Technology, 2016, 211, 267-272.	9.6	13
89	A sustainable and efficient recycling strategy of feather waste into keratin peptides with antimicrobial activity. Waste Management, 2022, 144, 421-430.	7.4	13
90	Investigation of vapor-phase silica deposition on MCM-41, using tetraalkoxysilanes. Microporous and Mesoporous Materials, 2002, 56, 101-109.	4.4	12

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91	Monitoring the Location, Amount, and Nature of Carbonaceous Deposits on Aged Zeolite Ferrierite Crystals by Using STEM-EELS. Chemistry - A European Journal, 2003, 9, 3106-3111.	3.3	12
92	Calcium Oxide Supported on Monoclinic Zirconia as a Highly Active Solid Base Catalyst. ChemCatChem, 2013, 5, 3621-3628.	3.7	12
93	Napins and cruciferins in rapeseed protein extracts have complementary roles in structuring emulsion-filled gels. Food Hydrocolloids, 2022, 125, 107400.	10.7	11
94	XAFS Study of the Al K-Edge in NaAlH4. Journal of Physical Chemistry C, 2007, 111, 11721-11725.	3.1	10
95	Effect of Support Surface Properties on CO₂ Capture from Air by Carbon-Supported Potassium Carbonate. Industrial & Engineering Chemistry Research, 2021, 60, 13749-13755.	3.7	10
96	The effect of meâ€substituents of 1,4â€butanediol analogues on the thermal properties of biobased polyesters. Journal of Polymer Science Part A, 2018, 56, 1903-1906.	2.3	9
97	Cyclic Voltammetry is Invasive on Microbial Electrosynthesis. ChemElectroChem, 2021, 8, 3384-3396.	3.4	9
98	Starch controls brittleness in emulsion-gels stabilized by pea flour. Food Hydrocolloids, 2022, 131, 107708.	10.7	9
99	CO₂ Conversion by Combining a Copper Electrocatalyst and Wildâ€type Microorganisms. ChemCatChem, 2020, 12, 3900-3912.	3.7	8
100	The influence of Î±-1,4-glucan substrates on 4,6-Î±-d-glucanotransferase reaction dynamics during isomalto/malto-polysaccharide synthesis. International Journal of Biological Macromolecules, 2021, 181, 762-768.	7.5	8
101	Exploring the Treasure of Plant Molecules With Integrated Biorefineries. Frontiers in Plant Science, 2019, 10, 478.	3.6	7
102	Iron impregnation on the amorphous shell of vapor grown carbon fibers and the catalytic growth of secondary nanofibers. Diamond and Related Materials, 2009, 18, 13-19.	3.9	6
103	Activated Carbon, Carbon Nanofibers and Carbon-Covered Alumina as Support for W2C in Stearic Acid Hydrodeoxygenation. ChemEngineering, 2019, 3, 24.	2.4	6
104	Synthesis and characterization of a supported Pd complex on carbon nanofibers for the selective decarbonylation of stearic acid to 1-heptadecene: the importance of subnanometric Pd dispersion. Catalysis Science and Technology, 2020, 10, 2970-2985.	4.1	6
105	Unusual differences in the reactivity of glutamic and aspartic acid in oxidative decarboxylation reactions. Green Chemistry, 2017, 19, 5178-5186.	9.0	5
106	Catalytic Cooperation between a Copper Oxide Electrocatalyst and a Microbial Community for Microbial Electrosynthesis. ChemPlusChem, 2021, 86, 763-777.	2.8	5
107	Concentration-dependent effects of nickel doping on activated carbon biocathodes. Catalysis Science and Technology, 2022, 12, 2500-2518.	4.1	5
108	Environmental Impact Evaluation for Heterogeneously Catalysed Starch Oxidation. ChemistryOpen, 2022, 11, e202200029.	1.9	5

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109	From batch to continuous: Au-catalysed oxidation of <scp>d</scp>-galacturonic acid in a packed bed plug flow reactor under alkaline conditions. Reaction Chemistry and Engineering, 2018, 3, 540-549.	3.7	4
110	Reaction Stages of Feather Hydrolysis: Factors That Influence Availability for Enzymatic Hydrolysis and Cystine Conservation during Thermal Pressure Hydrolysis. Biotechnology and Bioprocess Engineering, 2020, 25, 749-757.	2.6	4
111	Au³⁺-Induced gel network formation of proteins. Soft Matter, 2021, 17, 9682-9688.	2.7	3
112	The Use of Virtual Reality in A Chemistry Lab and Its Impact on Studentsâ€™ Self-Efficacy, Interest, Self-Concept and Laboratory Anxiety. Eurasia Journal of Mathematics, Science and Technology Education, 2022, 18, em2090.	1.3	3
113	Hollow protein microparticles formed through cross-linking by an Au³⁺ initiated redox reaction. Journal of Materials Chemistry B, 2022, 10, 6287-6295.	5.8	3
114	The assembling of a catalytic active copper site, in solution, followed by EXAFS. Journal of Synchrotron Radiation, 1999, 6, 423-424.	2.4	1
115	Carbohydrate structureâ€“activity relations of Au-catalysed base-free oxidations: gold displaying a platinum lustre. RSC Advances, 2022, 12, 8918-8923.	3.6	1
116	The World of Catalysisâ€"A Perspective from The Netherlands. ChemCatChem, 2013, 5, 359-360.	3.7	0
117	Jammed Emulsions with Adhesive Pea Protein Particles for Elastoplastic Edible 3D Printed Materials (Adv. Funct. Mater. 45/2021). Advanced Functional Materials, 2021, 31, 2170336.	14.9	0