

Bastian J M Etzold

List of Publications by Citations

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107 papers	2,625 citations	27 h-index	47 g-index
120 ext. papers	3,194 ext. citations	8 avg, IF	5.44 L-index

#	Paper	IF	Citations
107	Covalent incorporation of aminated nanodiamond into an epoxy polymer network. <i>ACS Nano</i> , 2011 , 5, 7494-502	16.7	221
106	Photonic crystal fibres for chemical sensing and photochemistry. <i>Chemical Society Reviews</i> , 2013 , 42, 8629-48	58.5	181
105	Solid Catalyst with Ionic Liquid Layer (SCILL) [A New Concept to Improve Selectivity Illustrated by Hydrogenation of Cyclooctadiene. <i>Chemical Engineering and Technology</i> , 2007 , 30, 985-994	2	179
104	Analysis of evaporation and thermal decomposition of ionic liquids by thermogravimetric analysis at ambient pressure and high vacuum. <i>Green Chemistry</i> , 2011 , 13, 1453	10	109
103	An improved method to measure the rate of vaporisation and thermal decomposition of high boiling organic and ionic liquids by thermogravimetric analysis. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 12089-100	3.6	88
102	Accelerating Oxygen-Reduction Catalysts through Preventing Poisoning with Non-Reactive Species by Using Hydrophobic Ionic Liquids. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 2257-61	16.4	85
101	Ionic liquids in electrocatalysis. <i>Journal of Energy Chemistry</i> , 2016 , 25, 199-207	12	66
100	Carbon structure in nanodiamonds elucidated from Raman spectroscopy. <i>Carbon</i> , 2017 , 121, 322-329	10.4	65
99	Boosting performance of low temperature fuel cell catalysts by subtle ionic liquid modification. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 3562-70	9.5	65
98	High selectivity of TiC-CDC for CO ₂ /N ₂ separation. <i>Carbon</i> , 2013 , 59, 221-228	10.4	54
97	Tuning the Electrocatalytic Performance of Ionic Liquid Modified Pt Catalysts for the Oxygen Reduction Reaction via Cationic Chain Engineering. <i>ACS Catalysis</i> , 2018 , 8, 8244-8254	13.1	53
96	Improved electrochemical performance of Fe-N-C catalysts through ionic liquid modification in alkaline media. <i>Journal of Power Sources</i> , 2018 , 375, 222-232	8.9	50
95	Modifier-Free Microfluidic Electrochemical Sensor for Heavy-Metal Detection. <i>ACS Omega</i> , 2017 , 2, 4593-4603	3.5	48
94	Mesoporous and Graphitic Carbide-Derived Carbons as Selective and Stable Catalysts for the Dehydrogenation Reaction. <i>Chemistry of Materials</i> , 2015 , 27, 5719-5725	9.6	47
93	Chlorination of titanium carbide for the processing of nanoporous carbon: A kinetic study. <i>Chemical Engineering Journal</i> , 2010 , 159, 236-241	14.7	47
92	Titanium carbide-derived carbon as a novel support for platinum catalysts in direct methanol fuel cell application. <i>Journal of Power Sources</i> , 2012 , 199, 22-28	8.9	45
91	Aqueous-phase reforming of xylitol over Pt/C and Pt/TiC-CDC catalysts: catalyst characterization and catalytic performance. <i>Catalysis Science and Technology</i> , 2014 , 4, 387-401	5.5	44

90	Towards best practices for improving paper-based microfluidic fuel cells. <i>Electrochimica Acta</i> , 2019 , 298, 389-399	6.7	44
89	Aqueous-phase reforming of alcohols with three carbon atoms on carbon-supported Pt. <i>Catalysis Today</i> , 2018 , 301, 78-89	5.3	40
88	Layer-by-Layer Oxidation for Decreasing the Size of Detonation Nanodiamond. <i>Chemistry of Materials</i> , 2014 , 26, 3479-3484	9.6	37
87	Vapor Pressure of Water in Mixtures with Hydrophilic Ionic Liquids [A Contribution to the Design of Processes for Drying of Gases by Absorption in Ionic Liquids. <i>Chemical Engineering and Technology</i> , 2010 , 33, 1625-1634	2	37
86	Size-controlled PtNi nanoparticles as highly efficient catalyst for hydrodechlorination reactions. <i>Applied Catalysis B: Environmental</i> , 2016 , 192, 1-7	21.8	36
85	Effect of Ionic Liquid Modification on the ORR Performance and Degradation Mechanism of Trimetallic PtNiMo/C Catalysts. <i>ACS Catalysis</i> , 2019 , 9, 8682-8692	13.1	35
84	Deducing kinetic constants for the hydrodechlorination of 4-chlorophenol using high adsorption capacity catalysts. <i>Chemical Engineering Journal</i> , 2016 , 285, 228-235	14.7	34
83	In-situ thermal activation of carbide-derived carbon. <i>Carbon</i> , 2011 , 49, 3679-3686	10.4	33
82	Synthesis of carbon core-shell pore structures and their performance as supercapacitors. <i>Microporous and Mesoporous Materials</i> , 2015 , 218, 130-136	5.3	32
81	Paper-based microfluidic aluminum-air batteries: toward next-generation miniaturized power supply. <i>Lab on A Chip</i> , 2019 , 19, 3438-3447	7.2	31
80	Highly efficient removal of pharmaceuticals from water by well-defined carbide-derived carbons. <i>Chemical Engineering Journal</i> , 2018 , 347, 595-606	14.7	27
79	Vanadium pentoxide/carbide-derived carbon core-shell hybrid particles for high performance electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 18899-18909	13	27
78	Process specific catalyst supports Selective electron beam melted cellular metal structures coated with microporous carbon. <i>Chemical Engineering Journal</i> , 2012 , 181-182, 725-733	14.7	26
77	Shrinking core like fluid solid reactions A dispersion model accounting for fluid phase volume change and solid phase particle size distributions. <i>Chemical Engineering Science</i> , 2012 , 69, 492-502	4.4	26
76	Fast production of monolithic carbide-derived carbons with secondary porosity produced by chlorination of carbides containing a free metal phase. <i>Carbon</i> , 2011 , 49, 4359-4367	10.4	24
75	Paper-Based Microfluidics for Electrochemical Applications. <i>ChemElectroChem</i> , 2020 , 7, 10-30	4.3	24
74	Probing CO Reduction Pathways for Copper Catalysis Using an Ionic Liquid as a Chemical Trapping Agent. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 18095-18102	16.4	24
73	Cathodic activated stainless steel mesh as a highly active electrocatalyst for the oxygen evolution reaction with self-healing possibility. <i>Journal of Energy Chemistry</i> , 2020 , 49, 153-160	12	23

72	Determination of vapor pressure and thermal decomposition using thermogravimetric analysis. <i>Thermochimica Acta</i> , 2015 , 622, 9-17	2.9	22
71	Photochemistry in a soft-glass single-ring hollow-core photonic crystal fibre. <i>Analyst, The</i> , 2017 , 142, 925-929	5	21
70	Polymer-based spherical activated carbon as catalytic support for hydrodechlorination reactions. <i>Applied Catalysis B: Environmental</i> , 2017 , 218, 498-505	21.8	21
69	Boosting the Activity in Supported Ionic Liquid-Phase-Catalyzed Hydroformylation via Surface Functionalization of the Carbon Support. <i>ACS Catalysis</i> , 2016 , 6, 2280-2286	13.1	21
68	Methanol conversion on borocarbonitride catalysts: Identification and quantification of active sites. <i>Science Advances</i> , 2020 , 6, eaba5778	14.3	20
67	Ultra-low concentration monitoring of catalytic reactions in photonic crystal fiber. <i>Chemistry - A European Journal</i> , 2012 , 18, 1586-90	4.8	20
66	Preparation of carbide-derived carbon supported platinum catalysts. <i>Catalysis Today</i> , 2015 , 249, 30-37	5.3	20
65	Improved synthesis and hydrothermal stability of Pt/C catalysts based on size-controlled nanoparticles. <i>Catalysis Science and Technology</i> , 2016 , 6, 5196-5206	5.5	20
64	Oxidative dehydrogenation on nanocarbon: Effect of heteroatom doping. <i>Applied Catalysis B: Environmental</i> , 2019 , 258, 117982	21.8	19
63	Chemical and (Photo)-Catalytical Transformations in Photonic Crystal Fibers. <i>ChemCatChem</i> , 2013 , 5, 641-650	5.2	19
62	Nanoscale Hybrid Amorphous/Graphitic Carbon as Key Towards Next-Generation Carbon-Based Oxidative Dehydrogenation Catalysts. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 5898-5906	16.4	18
61	Carbide-derived carbon with hollow core structure and its performance as catalyst support for methanol electro-oxidation. <i>Electrochemistry Communications</i> , 2017 , 82, 12-15	5.1	17
60	Epimerisation of menthol stereoisomers: Kinetic studies of the heterogeneously catalysed menthol production. <i>Catalysis Today</i> , 2009 , 140, 30-36	5.3	17
59	Polymer-Based Spherical Activated Carbon as Easy-to-Handle Catalyst Support for Hydrogenation Reactions. <i>Chemical Engineering and Technology</i> , 2016 , 39, 276-284	2	17
58	Exploring the role of the catalytic support sorption capacity on the hydrodechlorination kinetics by the use of carbide-derived carbons. <i>Applied Catalysis B: Environmental</i> , 2017 , 203, 591-598	21.8	15
57	Methanol oxidative dehydrogenation and dehydration on carbon nanotubes: active sites and basic reaction kinetics. <i>Catalysis Science and Technology</i> , 2020 , 10, 4952-4959	5.5	15
56	An advanced method to manufacture hierarchically structured carbide-derived carbon monoliths. <i>Carbon</i> , 2014 , 70, 30-37	10.4	15
55	Molecular Modeling of Microporous Structures of Carbide-Derived Carbon-Based Supercapacitors. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 7221-7231	3.8	14

54	Controlled synthesis of core-shell carbide-derived carbons through in situ generated chlorine. <i>Carbon</i> , 2017 , 115, 422-429	10.4	13
53	Activated Carbon in the Third Dimension-3D Printing of a Tuned Porous Carbon. <i>Advanced Science</i> , 2019 , 6, 1901340	13.6	13
52	Carbide-Derived Niobium Pentoxide with Enhanced Charge Storage Capacity for Use as a Lithium-Ion Battery Electrode. <i>ACS Applied Energy Materials</i> , 2020 , 3, 4275-4285	6.1	13
51	Oxygen assisted butanol conversion on bifunctional carbon nanotube catalysts: Activity of oxygen functionalities. <i>Carbon</i> , 2020 , 170, 580-588	10.4	12
50	Combined Computational and Experimental Study on the Influence of Surface Chemistry of Carbon-Based Electrodes on Electrode/Electrolyte Interactions in Supercapacitors. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 2716-2727	3.8	12
49	Insights into the redox kinetics of vanadium substituted heteropoly acids through liquid core waveguide membrane microreactor studies. <i>Chemical Engineering Journal</i> , 2019 , 369, 443-450	14.7	11
48	Controlled synthesis of PVP-based carbon-supported Ru nanoparticles: synthesis approaches, characterization, capping agent removal and catalytic behavior. <i>Catalysis Science and Technology</i> , 2016 , 6, 8490-8504	5.5	11
47	Thermal and Electrical Conductivity of Amorphous and Graphitized Carbide-Derived Carbon Monoliths. <i>Chemical Engineering and Technology</i> , 2016 , 39, 1121-1129	2	11
46	Producing high quality carbide-derived carbon from low quality byproducts stemming from SiC production. <i>Chemical Engineering Journal</i> , 2016 , 283, 676-681	14.7	10
45	Dynamics of Bulk Oxygen in the Selective Oxidation of Acrolein. <i>ChemCatChem</i> , 2017 , 9, 2390-2398	5.2	9
44	Introducing sulphur surface groups in microporous carbons: A mechanistic study on carbide derived carbons. <i>Catalysis Today</i> , 2018 , 301, 191-195	5.3	9
43	Characterization of V ₂ Mo ₂ Mixed Oxide Catalyst Surface Species by ⁵¹ V Solid-State Dynamic Nuclear Polarization NMR. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 20857-20864	3.8	9
42	In Situ Heterogeneous Catalysis Monitoring in a Hollow-Core Photonic Crystal Fiber Microflow Reactor. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1300093	4.6	9
41	Kinetic Study of the Asymmetric Hydrogenation of Methyl Acetoacetate in the Presence of a Ruthenium Binaphthophosphine Complex. <i>Advanced Synthesis and Catalysis</i> , 2009 , 351, 235-245	5.6	9
40	Benchmarking Fuel Cell Electrocatalysts Using Gas Diffusion Electrodes: Inter-lab Comparison and Best Practices. <i>ACS Energy Letters</i> , 2022 , 7, 816-826	20.1	9
39	Verbesserung der Selektivität fester Katalysatoren durch die Beschichtung mit ionischen Flüssigkeiten – Untersuchungen am Beispiel der Hydrierung von Cyclooctadien. <i>Chemie-Ingenieur-Technik</i> , 2007 , 79, 807-819	0.8	8
38	Comparing Different Synthesis Procedures for Carbide-Derived Carbon-Based Structured Catalyst Supports. <i>Chemical Engineering and Technology</i> , 2014 , 37, 453-461	2	7
37	Activity Hysteresis during Cyclic Temperature-Programmed Reactions in the Partial Oxidation of Acrolein to Acrylic Acid. <i>Chemical Engineering and Technology</i> , 2017 , 40, 2084-2095	2	7

36	An Optical Microreactor Enabling In Situ Spectroscopy Combined with Fast Gas-Liquid Mass Transfer. <i>Chemie-Ingenieur-Technik</i> , 2018 , 90, 1855-1863	0.8	7
35	Stable Immobilization of Size-Controlled Bimetallic Nanoparticles in Photonic Crystal Fiber Microreactor. <i>Chemie-Ingenieur-Technik</i> , 2018 , 90, 653-659	0.8	7
34	Mechanistic Study on the Selective Oxidation of Acrolein to Acrylic Acid: Identification of the Rate-Limiting Step via Perdeuterated Acrolein. <i>ChemCatChem</i> , 2019 , 11, 3242-3252	5.2	6
33	Adsorption of Nickel Ions on Oxygen-Functionalized Carbons. <i>Chemical Engineering and Technology</i> , 2016 , 39, 715-722	2	6
32	Combining autoclave and LCWM reactor studies to shed light on the kinetics of glucose oxidation catalyzed by doped molybdenum-based heteropoly acids.. <i>RSC Advances</i> , 2019 , 9, 29347-29356	3.7	6
31	Understanding the activity transport nexus in water and CO ₂ electrolysis: State of the art, challenges and perspectives. <i>Chemical Engineering Journal</i> , 2021 , 424, 130501	14.7	6
30	Improving control of carbide-derived carbon microstructure by immobilization of a transition-metal catalyst within the shell of carbide/carbon core-shell structures. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 419-427	3	5
29	Heterogeneously Catalyzed Hydrogenation of Supercritical CO ₂ to Methanol. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1907-1915	2	5
28	Recommendations for the Production of Silicon Carbide-derived Carbon Based on Intrinsic Kinetic Data. <i>Chemical Engineering and Technology</i> , 2012 , 35, 1495-1503	2	5
27	Synthesis of Microporous Carbon Foams as Catalyst Supports. <i>Chemical Engineering and Technology</i> , 2010 , 33, NA-NA	2	5
26	Aktivitätssteigerung von Sauerstoffreduktionskatalysatoren durch Unterdrückung der Katalysatorvergiftung mittels hydrophober ionischer Flüssigkeiten. <i>Angewandte Chemie</i> , 2016 , 128, 2298-2302	3.6	5
25	Synthesis strategies towards amorphous porous carbons with selective oxygen functionalization for the application as reference material. <i>Carbon</i> , 2021 , 171, 658-670	10.4	5
24	A feasible way to remove the heat during adsorptive methane storage. <i>Environmental Science & Technology</i> , 2015 , 49, 672-8	10.3	4
23	Heterogeneously Catalyzed Epimerization of Menthol Stereoisomers [An Instructive Example to Account for Diffusion Limitations in Complex Reaction Networks. <i>Chemical Engineering and Technology</i> , 2008 , 31, 1282-1289	2	3
22	Emerging Applications of Solid Catalysts with Ionic Liquid Layer Concept in Electrocatalysis. <i>Advanced Functional Materials</i> , 2021 , 31, 2010977	15.6	3
21	Porous graphite as stationary phase for the chromatographic separation of polymer additives - determination of adsorption capability by Raman spectroscopy and physisorption. <i>Journal of Chromatography A</i> , 2020 , 1625, 461302	4.5	2
20	Trendbericht Technische Chemie. <i>Nachrichten Aus Der Chemie</i> , 2018 , 66, 489-495	0.1	2
19	Mesoporous and crystalline carbide-derived carbons: Towards a general correlation on synthesis temperature and precursor structure influence. <i>Carbon</i> , 2021 , 175, 215-222	10.4	2

18	Nanoskaliger hybrider amorph/graphitischer Kohlenstoff als Schlüssel zur nächsten Generation von kohlenstoffbasierten Katalysatoren für oxidative Dehydrierungen. <i>Angewandte Chemie</i> , 2021 , 133, 5962-5971	3.6	2
17	3D-printed activated carbon for post-combustion CO ₂ capture. <i>Microporous and Mesoporous Materials</i> , 2022 , 335, 111818	5.3	2
16	Simulative Approach for Linking Electrode and Electrolyte Properties to Supercapacitor Performance. <i>Chemie-Ingenieur-Technik</i> , 2019 , 91, 889-899	0.8	1
15	The effect of temperature on ionic liquid modified Fe-N-C catalysts for alkaline oxygen reduction reaction. <i>Journal of Energy Chemistry</i> , 2022 , 68, 324-329	12	1
14	Investigation of the acrolein oxidation on heteropolyacid catalysts by transient response methods. <i>Catalysis Science and Technology</i> , 2020 , 10, 5231-5244	5.5	1
13	Carbon-Methanol Based Adsorption Heat Pumps: Identifying Accessible Parameter Space with Carbide-Derived Carbon Model Materials. <i>Chemical Engineering and Technology</i> , 2020 , 43, 1876-1883	2	1
12	Methodology for the identification of carbonyl absorption maxima of carbon surface oxides in DRIFT spectra. <i>Carbon Trends</i> , 2021 , 3, 100020	0	1
11	Mechanistic Study on the Selective Oxidation of Acrolein to Acrylic Acid concerning the Role of Water. <i>ChemCatChem</i> , 2020 , 12, 3560-3575	5.2	1
10	Thermodynamic equilibrium investigation to operational capabilities and process tolerance of plasma gasification for various feedstock. <i>Chemical Engineering Science</i> , 2022 , 250, 117401	4.4	0
9	Probing CO ₂ Reduction Pathways for Copper Catalysis Using an Ionic Liquid as a Chemical Trapping Agent. <i>Angewandte Chemie</i> , 2020 , 132, 18251-18258	3.6	0
8	Avoiding Pitfalls in Comparison of Activity and Selectivity of Solid Catalysts for Electrochemical HMF Oxidation. <i>ChemistryOpen</i> , 2021 , 10, 600-606	2.3	0
7	Preparation of hollow mesoporous carbon spheres and their performances for electrochemical applications. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 316, 012018	0.4	0
6	Oxygen reduction reaction measurements on platinum electrocatalysts in gas diffusion electrode half-cells: Influence of electrode preparation, measurement protocols and common pitfalls. <i>Journal of Power Sources</i> , 2022 , 539, 231530	8.9	0
5	Investigation of the Phase Equilibria of CO ₂ /CH ₃ OH/H ₂ O and CO ₂ /CH ₃ OH/H ₂ O/H ₂ Mixtures. <i>Chemical Engineering and Technology</i> , 2019 , 42, 2386-2392	2	
4	Innenrücktitelbild: Probing CO ₂ Reduction Pathways for Copper Catalysis Using an Ionic Liquid as a Chemical Trapping Agent (Angew. Chem. 41/2020). <i>Angewandte Chemie</i> , 2020 , 132, 18431-18431	3.6	
3	Innenrücktitelbild: Aktivitätssteigerung von Sauerstoffreduktionskatalysatoren durch Unterdrückung der Katalysatorvergiftung mittels hydrophober ionischer Flüssigkeiten (Angew. Chem. 6/2016). <i>Angewandte Chemie</i> , 2016 , 128, 2315-2315	3.6	
2	Comparison of the selective oxidation kinetics between acrolein and methacrolein on Mo/V/W-mixed oxides. <i>Catalysis Today</i> , 2021 , 363, 85-92	5.3	
1	Innentitelbild: Nanoskaliger hybrider amorph/graphitischer Kohlenstoff als Schlüssel zur nächsten Generation von kohlenstoffbasierten Katalysatoren für oxidative Dehydrierungen (Angew. Chem. 11/2021). <i>Angewandte Chemie</i> , 2021 , 133, 5634-5634	3.6	

