

# Dieter Bathen

## List of Publications by Year in descending order

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75  
papers

936  
citations

623574

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h-index

580701

25  
g-index

78  
all docs

78  
docs citations

78  
times ranked

931  
citing authors

#	ARTICLE	IF	CITATIONS
1	Adsorptionstechnik. , 2001, , .		96
2	Physical waves in adsorption technology – an overview. Separation and Purification Technology, 2003, 33, 163-177.	3.9	89
3	Effect of Ultrasound on Adsorption and Desorption Processes. Industrial & Engineering Chemistry Research, 2003, 42, 5635-5646.	1.8	87
4	Investigation of load-dependent heat of adsorption of alkanes and alkenes on zeolites and activated carbon. Microporous and Mesoporous Materials, 2017, 241, 1-10.	2.2	44
5	Characterization of Activated Carbon Adsorbents – State of the Art and Novel Approaches. ChemBioEng Reviews, 2019, 6, 119-138.	2.6	34
6	Trace Level Adsorption of Toxic Sulfur Compounds, Carbon Dioxide, and Water from Methane. Journal of Chemical & Engineering Data, 2013, 58, 2465-2473.	1.0	29
7	Periodic Mesoporous Organosilicas as Adsorbents of Toxic Trace Gases out of the Ambient Air. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2014, 640, 632-640.	0.6	25
8	Adsorptive Separation of CO <sub>2</sub> from Flue Gas by Temperature Swing Adsorption Processes. ChemBioEng Reviews, 2017, 4, 277-288.	2.6	23
9	Design and experimental evaluation of a new nanoparticle thermophoretic personal sampler. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	21
10	Temperature Dependent Adsorption of Sulfur Components, Water, and Carbon Dioxide on a Silica-Alumina Gel Used in Natural Gas Processing. Journal of Chemical & Engineering Data, 2016, 61, 3208-3216.	1.0	18
11	Trace Adsorption of Ethane, Propane, and <i>n</i> -Butane on Microporous Activated Carbon and Zeolite 13X at Low Temperatures. Journal of Chemical & Engineering Data, 2017, 62, 1973-1982.	1.0	18
12	Temperature Swing Adsorption in Natural Gas Processing: A Concise Overview. ChemBioEng Reviews, 2019, 6, 59-71.	2.6	18
13	A Detailed Investigation of Adsorption Isotherms, Enthalpies, and Kinetics of Mercury Adsorption on Nonimpregnated Activated Carbon. Industrial & Engineering Chemistry Research, 2019, 58, 4208-4221.	1.8	18
14	Characterisation of CO <sub>2</sub> absorption in various solvents for PCC applications by Raman spectroscopy. Energy Procedia, 2011, 4, 1520-1525.	1.8	17
15	Modeling and Simulation of a Tube Bundle Adsorber for the Capture of CO <sub>2</sub> from Flue Gases. Chemie-Ingenieur-Technik, 2016, 88, 336-345.	0.4	16
16	Comparison of membrane contactor and structured packings for CO <sub>2</sub> absorption. Energy Procedia, 2011, 4, 1471-1477.	1.8	15
17	UV spectroscopic properties of principal inorganic ionic species in natural waters. Water Practice and Technology, 2018, 13, 879-892.	1.0	14
18	Characterization of structural and chemical modifications during the steam activation of activated carbons. Microporous and Mesoporous Materials, 2020, 309, 110549.	2.2	14

#	ARTICLE	IF	CITATIONS
19	A study on the load-dependent enthalpy of adsorption and interactions in adsorption of C5 and C6 hydrocarbons on zeolites 13X and ZSM-5 and an activated carbon. <i>Microporous and Mesoporous Materials</i> , 2020, 302, 110205.	2.2	14
20	Iron Oxide/Polymer-Based Nanocomposite Material for Hydrogen Sulfide Adsorption Applications. <i>Chemical Engineering and Technology</i> , 2014, 37, 1938-1944.	0.9	13
21	Adsorption of Light Alkanes and Alkenes on Activated Carbon and Zeolite 13X at Low Temperatures. <i>Journal of Chemical &amp; Engineering Data</i> , 2020, 65, 706-716.	1.0	13
22	Characterization of microporous activated carbons using molecular probe method. <i>Carbon</i> , 2014, 74, 22-31.	5.4	12
23	Parameter study on the adsorptive drying of isopropanol in a fixed bed adsorber. <i>Separation and Purification Technology</i> , 2014, 132, 736-743.	3.9	12
24	Novel silica-based adsorbents with activated carbon structure. <i>Microporous and Mesoporous Materials</i> , 2015, 210, 202-205.	2.2	12
25	Adsorption and Desorption of Isoflurane on Carbonaceous Adsorbents and Zeolites at Low Concentrations in Gas Phase. <i>Journal of Chemical &amp; Engineering Data</i> , 2016, 61, 686-692.	1.0	12
26	Desorption of Mercaptans and Water from a Silica-Alumina Gel. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 614-621.	1.8	12
27	Comprehensive Methodology for the Investigation of Mercury Adsorption on Activated Carbons. <i>Chemie-Ingenieur-Technik</i> , 2019, 91, 1874-1884.	0.4	12
28	Adsorptive Water Removal from Primary Alcohols and Acetic Acid Esters in the ppm-Region. <i>Journal of Chemical &amp; Engineering Data</i> , 2012, 57, 2465-2471.	1.0	11
29	Adsorption of Inhalation Anesthetics (Fluranes and Ethers) on Activated Carbons and Zeolites at Trace Level Concentrations. <i>Journal of Chemical &amp; Engineering Data</i> , 2017, 62, 1832-1841.	1.0	11
30	Influence of Oxygen on Hg <sup>0</sup> Adsorption on Non-Impregnated Activated Carbons. <i>ACS Omega</i> , 2020, 5, 17051-17061.	1.6	11
31	Impact of Na <sup>+</sup> and Ca <sup>2+</sup> Cations on the Adsorption of H <sub>2</sub> S on Binder-Free LTA Zeolites. <i>Adsorption Science and Technology</i> , 2021, 2021, 1-12.	1.5	11
32	Adsorptive Water Removal from Organic Solvents in the ppm-Region. <i>Chemie-Ingenieur-Technik</i> , 2011, 83, 177-182.	0.4	10
33	Load-dependent heat of adsorption of C 6 hydrocarbons on silica alumina gel. <i>Microporous and Mesoporous Materials</i> , 2018, 264, 208-217.	2.2	10
34	Adsorption Thermodynamics and Kinetics of Light Hydrocarbons on Microporous Activated Carbon at Low Temperatures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 8023-8035.	1.8	10
35	Absorption of SO <sub>2</sub> in different electrolyte solutions, seawater and brine. <i>Fluid Phase Equilibria</i> , 2015, 402, 89-101.	1.4	9
36	Energetic Characterization of Faujasite Zeolites Using a Sensor Gas Calorimeter. <i>Catalysts</i> , 2021, 11, 98.	1.6	9

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37	Gas Adsorption Isotherm for Dealuminated Zeolites. <i>Industrial &amp; Engineering Chemistry Research</i> , 1997, 36, 3993-3994.	1.8	8
38	Adsorption of aromatic trace compounds from organic solvents on activated carbons – experimental results and modeling of adsorption equilibria. <i>Adsorption</i> , 2012, 18, 127-141.	1.4	8
39	Elektrothermische Regeneration von Adsorbentien - Ein Überblick über den Stand von Forschung und Entwicklung. <i>Chemie-Ingenieur-Technik</i> , 1999, 71, 1359-1363.	0.4	7
40	Influence of the degree of infiltration of modified activated carbons with CuO/ZnO on the separation of NO <sub>2</sub> at ambient temperatures. <i>Adsorption Science and Technology</i> , 2016, 34, 307-319.	1.5	7
41	Chemical Surface Characterization of Activated Carbons by Adsorption Excess of Probe Molecules. <i>Chemical Engineering and Technology</i> , 2016, 39, 1144-1150.	0.9	7
42	Single and Binary Mixture Adsorption Behaviors of C <sub>6</sub> -C <sub>8</sub> Hydrocarbons on Silica-Alumina Gel. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 16451-16463.	1.8	7
43	Adsorption of Cyclic Hydrocarbons on Silica Alumina Gels in Natural Gas Processing. <i>Chemie-Ingenieur-Technik</i> , 2017, 89, 935-943.	0.4	6
44	Trace Adsorption of Light Hydrocarbons at Low Temperatures: Influence of Carrier Gas Coadsorption. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 10540-10549.	1.8	6
45	Impact of H <sub>2</sub> O on the Adsorption of Hg <sup>0</sup> on Activated Carbon. <i>ACS Omega</i> , 2021, 6, 16989-17001.	1.6	6
46	Ein neuer Ansatz zur Charakterisierung der Flüssigphasenadsorption an Aktivkohlen. <i>Chemie-Ingenieur-Technik</i> , 2015, 87, 563-570.	0.4	5
47	Speciation of Inorganic Mercury Compounds in Solid Samples via Thermo-desorption Experiments. <i>Chemical Engineering and Technology</i> , 2021, 44, 788-796.	0.9	5
48	Adsorptive Entfernung von Schwefelverbindungen aus Erdgas. <i>Chemie-Ingenieur-Technik</i> , 2013, 85, 333-343.	0.4	4
49	Chemical vapor infiltration of activated carbon with tetramethylsilane. <i>Carbon</i> , 2014, 79, 28-35.	5.4	4
50	Experimental and theoretical study on the adsorptive drying of primary alcohols in a fixed bed adsorber. <i>Separation and Purification Technology</i> , 2015, 145, 39-49.	3.9	4
51	Entwicklung eines Messgeräts zur Kopplung von Kalorimetrischen und volumetrischen Sorptionsmessungen. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 282-290.	0.4	4
52	Spectroscopic measurement of sulfur species from SO <sub>2</sub> absorption in different electrolyte solutions, seawater and brine. <i>Fluid Phase Equilibria</i> , 2016, 414, 65-74.	1.4	4
53	Combination of X-ray powder diffraction and adsorption calorimetry for the characterization of calcium exchanged LTA zeolites. <i>Microporous and Mesoporous Materials</i> , 2022, 337, 111940.	2.2	4
54	Experimenteller Vergleich verschiedener thermischer Desorptionsverfahren zur Lösungsmittelrückgewinnung. <i>Chemie-Ingenieur-Technik</i> , 1997, 69, 132-134.	0.4	3

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55	Adsorptive Entfernung von Alkoxyphenolen aus Ketonen und Estern mit Aktivkohleâ€”â€”Experimente und Modellierung. Adsorptive Removal of Alkoxyphenols from Ketones and Esters with Activated Carbonâ€”â€”Experiments and Modelling. Chemie-Ingenieur-Technik, 2010, 82, 1763-1769.	0.4	3
56	Adsorption auf der ACHEMA 2012. Chemie-Ingenieur-Technik, 2012, 84, 1466-1468.	0.4	3
57	Modeling of Water Adsorption in SAPOâ€”4â€”Coated Aluminum Foam. Chemie-Ingenieur-Technik, 2017, 89, 757-764.	0.4	3
58	Simulative Investigation of the Application of Nonimpregnated Activated Carbon in a Multilayer Adsorber for the Separation of Hg<sup>0</sup> from Discontinuous Waste Gas Streams. Industrial & Engineering Chemistry Research, 2021, 60, 4097-4109.	1.8	3
59	Diffuse Emissionen an Flanschverbindungen: Einfluss der FlÃ”chenpressung. Chemie-Ingenieur-Technik, 2000, 72, 467-473.	0.4	2
60	Characterization of Microporous Activated Carbons Using Molecular Probe Method. Chemie-Ingenieur-Technik, 2014, 86, 72-82.	0.4	2
61	Eine kritische Betrachtung zur Charakterisierung von Aktivkohlen mittels der Jodzahl. Chemie-Ingenieur-Technik, 2014, 86, 67-71.	0.4	2
62	Sorption of Acetaldehyde and Hexanal in Trace Concentrations on Carbonâ€”Based Adsorbents. Chemical Engineering and Technology, 2015, 38, 125-130.	0.9	2
63	Investigation of Mechanical, Chemical and Adsorptive Properties of Novel Silicon-Based Adsorbents with Activated Carbon Structure. Journal of Carbon Research, 2017, 3, 27.	1.4	2
64	Development of a Measuring Method for the Determination of Bisulfite and Sulfite in Seawater. Chemie-Ingenieur-Technik, 2019, 91, 1563-1574.	0.4	2
65	Influence of reactivation conditions on the physio-chemical properties of activated carbon. Journal of Water Process Engineering, 2022, 48, 102784.	2.6	2
66	Untersuchungen zur Beeinflussung von AdsorptionsvorgÃ”ngen durch Ultraschall. Chemie-Ingenieur-Technik, 2000, 72, 837-840.	0.4	1
67	Adsorption of the Inhalation Anesthetic Isoflurane from Dry and Humid Atmosphere. Chemical Engineering and Technology, 2019, 42, 1268-1275.	0.9	1
68	Grundlagen der Adsorption. , 2001, , 49-101.		1
69	Adsorption of Mercury on Chlorine-Modified Activated Carbon: Breakthrough Curves and Temperature-Programmed Desorption. ACS Omega, 2022, 7, 23833-23841.	1.6	1
70	Leckagemessung an Flanschverbindungen - Das Vakuum-Verfahren. Vakuum in Forschung Und Praxis, 2000, 12, 104-107.	0.0	0
71	Circle Squaring in International Chemical Engineering Education at the University of Dortmund. Chemie-Ingenieur-Technik, 2001, 73, 617-617.	0.4	0
72	Adsorption - eine Technologie mit Zukunft. Chemie-Ingenieur-Technik, 2014, 86, 3-3.	0.4	0

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73	Humidity Measurements in Organic Solvents Using Tunable Diode Laser Absorption Spectroscopy. Chemie-Ingenieur-Technik, 2014, 86, 136-143.	0.4	0
74	Adsorption - wenn Ingenieure und Chemiker sich treffen â€¦. Chemie-Ingenieur-Technik, 2016, 88, 223-223.	0.4	0
75	Technische Desorptionsverfahren. , 2001, , 139-181.		0