

# Dieter Bathen

## List of Publications by Year in descending order

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papers

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623574

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g-index

78  
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78  
docs citations

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times ranked

931  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Influence of reactivation conditions on the physio-chemical properties of activated carbon. Journal of Water Process Engineering, 2022, 48, 102784.   | 2.6 | 2         |
| 2  | Combination of X-ray powder diffraction and adsorption calorimetry for the characterization of calcium exchanged LTA zeolites. Microporous and Mesoporous Materials, 2022, 337, 111940.   | 2.2 | 4         |
| 3  | Adsorption of Mercury on Chlorine-Modified Activated Carbon: Breakthrough Curves and Temperature-Programmed Desorption. ACS Omega, 2022, 7, 23833-23841.  | 1.6 | 1         |
| 4  | Energetic Characterization of Faujasite Zeolites Using a Sensor Gas Calorimeter. Catalysts, 2021, 11, 98.   | 1.6 | 9         |
| 5  | 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         |
| 6  | Speciation of Inorganic Mercury Compounds in Solid Samples via Thermo-desorption Experiments. Chemical Engineering and Technology, 2021, 44, 788-796.   | 0.9 | 5         |
| 7  | 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. Adsorption Science and Technology, 2021, 2021, 1-12.  | 1.5 | 11        |
| 8  | Impact of H <sub>2</sub> O on the Adsorption of Hg <sup>0</sup> on Activated Carbon. ACS Omega, 2021, 6, 16989-17001.   | 1.6 | 6         |
| 9  | Adsorption of Light Alkanes and Alkenes on Activated Carbon and Zeolite 13X at Low Temperatures. Journal of Chemical & Engineering Data, 2020, 65, 706-716.   | 1.0 | 13        |
| 10 | Influence of Oxygen on Hg <sup>0</sup> Adsorption on Non-Impregnated Activated Carbons. ACS Omega, 2020, 5, 17051-17061.  | 1.6 | 11        |
| 11 | Characterization of structural and chemical modifications during the steam activation of activated carbons. Microporous and Mesoporous Materials, 2020, 309, 110549.  | 2.2 | 14        |
| 12 | A study on the load-dependent enthalpy of adsorption and interactions in adsorption of C <sub>5</sub> and C <sub>6</sub> hydrocarbons on zeolites 13X and ZSM-5 and an activated carbon. Microporous and Mesoporous Materials, 2020, 302, 110205.     | 2.2 | 14        |
| 13 | Characterization of Activated Carbon Adsorbents – State of the Art and Novel Approaches. ChemBioEng Reviews, 2019, 6, 119-138.  | 2.6 | 34        |
| 14 | Comprehensive Methodology for the Investigation of Mercury Adsorption on Activated Carbons. Chemie-Ingenieur-Technik, 2019, 91, 1874-1884.  | 0.4 | 12        |
| 15 | Trace Adsorption of Light Hydrocarbons at Low Temperatures: Influence of Carrier Gas Coadsorption. Industrial & Engineering Chemistry Research, 2019, 58, 10540-10549.  | 1.8 | 6         |
| 16 | Temperature Swing Adsorption in Natural Gas Processing: A Concise Overview. ChemBioEng Reviews, 2019, 6, 59-71.   | 2.6 | 18        |
| 17 | Adsorption of the Inhalation Anesthetic Isoflurane from Dry and Humid Atmosphere. Chemical Engineering and Technology, 2019, 42, 1268-1275.   | 0.9 | 1         |
| 18 | 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        |

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|----|---|-----|-----------|
| 19 | Development of a Measuring Method for the Determination of Bisulfite and Sulfite in Seawater. <i>Chemie-Ingenieur-Technik</i> , 2019, 91, 1563-1574.  | 0.4 | 2         |
| 20 | 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        |
| 21 | Single and Binary Mixture Adsorption Behaviors of C6–C8Hydrocarbons on Silica–Alumina Gel. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 16451-16463.  | 1.8 | 7         |
| 22 | UV spectroscopic properties of principal inorganic ionic species in natural waters. <i>Water Practice and Technology</i> , 2018, 13, 879-892.   | 1.0 | 14        |
| 23 | 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        |
| 24 | Desorption of Mercaptans and Water from a Silica–Alumina Gel. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 614-621.   | 1.8 | 12        |
| 25 | Investigation of load-dependent heat of adsorption of alkanes and alkenes on zeolites and activated carbon. <i>Microporous and Mesoporous Materials</i> , 2017, 241, 1-10.  | 2.2 | 44        |
| 26 | 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        |
| 27 | Trace Adsorption of Ethane, Propane, and <i>n</i> -Butane on Microporous Activated Carbon and Zeolite 13X at Low Temperatures. <i>Journal of Chemical &amp; Engineering Data</i> , 2017, 62, 1973-1982.           | 1.0 | 18        |
| 28 | Adsorption of Cyclic Hydrocarbons on Silica Alumina Gels in Natural Gas Processing. <i>Chemie-Ingenieur-Technik</i> , 2017, 89, 935-943.  | 0.4 | 6         |
| 29 | Adsorptive Separation of CO <sub>2</sub> from Flue Gas by Temperature Swing Adsorption Processes. <i>ChemBioEng Reviews</i> , 2017, 4, 277-288.   | 2.6 | 23        |
| 30 | Modeling of Water Adsorption in SAPO-34-Coated Aluminum Foam. <i>Chemie-Ingenieur-Technik</i> , 2017, 89, 757-764.  | 0.4 | 3         |
| 31 | Investigation of Mechanical, Chemical and Adsorptive Properties of Novel Silicon-Based Adsorbents with Activated Carbon Structure. <i>Journal of Carbon Research</i> , 2017, 3, 27.                               | 1.4 | 2         |
| 32 | Entwicklung eines Messgeräts zur Kopplung von Kalorimetrischen und volumetrischen Sorptionsmessungen. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 282-290.  | 0.4 | 4         |
| 33 | Modeling and Simulation of a Tube Bundle Adsorber for the Capture of CO <sub>2</sub> from Flue Gases. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 336-345.  | 0.4 | 16        |
| 34 | Temperature Dependent Adsorption of Sulfur Components, Water, and Carbon Dioxide on a Silica–Alumina Gel Used in Natural Gas Processing. <i>Journal of Chemical &amp; Engineering Data</i> , 2016, 61, 3208-3216. | 1.0 | 18        |
| 35 | Adsorption - wenn Ingenieure und Chemiker sich treffen –!. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 223-223.   | 0.4 | 0         |
| 36 | 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        |

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|----|--|-----|-----------|
| 37 | Influence of the degree of infiltration of modified activated carbons with CuO/ZnO on the separation of NO <sub>2</sub> at ambient temperatures. Adsorption Science and Technology, 2016, 34, 307-319. | 1.5 | 7         |
| 38 | Chemical Surface Characterization of Activated Carbons by Adsorption Excess of Probe Molecules. Chemical Engineering and Technology, 2016, 39, 1144-1150.  | 0.9 | 7         |
| 39 | Spectroscopic measurement of sulfur species from SO <sub>2</sub> absorption in different electrolyte solutions, seawater and brine. Fluid Phase Equilibria, 2016, 414, 65-74.                          | 1.4 | 4         |
| 40 | Absorption of SO <sub>2</sub> in different electrolyte solutions, seawater and brine. Fluid Phase Equilibria, 2015, 402, 89-101.   | 1.4 | 9         |
| 41 | Novel silica-based adsorbents with activated carbon structure. Microporous and Mesoporous Materials, 2015, 210, 202-205.   | 2.2 | 12        |
| 42 | Experimental and theoretical study on the adsorptive drying of primary alcohols in a fixed bed adsorber. Separation and Purification Technology, 2015, 145, 39-49.                                     | 3.9 | 4         |
| 43 | Ein neuer Ansatz zur Charakterisierung der 1/4ssigphasenadsorption an Aktivkohlen. Chemie-Ingenieur-Technik, 2015, 87, 563-570.  | 0.4 | 5         |
| 44 | Sorption of Acetaldehyde and Hexanal in Trace Concentrations on Carbon-Based Adsorbents. Chemical Engineering and Technology, 2015, 38, 125-130.   | 0.9 | 2         |
| 45 | 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        |
| 46 | Characterization of Microporous Activated Carbons Using Molecular Probe Method. Chemie-Ingenieur-Technik, 2014, 86, 72-82.   | 0.4 | 2         |
| 47 | Adsorption - eine Technologie mit Zukunft. Chemie-Ingenieur-Technik, 2014, 86, 3-3.  | 0.4 | 0         |
| 48 | Iron Oxide/Polymer-Based Nanocomposite Material for Hydrogen Sulfide Adsorption Applications. Chemical Engineering and Technology, 2014, 37, 1938-1944.  | 0.9 | 13        |
| 49 | Humidity Measurements in Organic Solvents Using Tunable Diode Laser Absorption Spectroscopy. Chemie-Ingenieur-Technik, 2014, 86, 136-143.  | 0.4 | 0         |
| 50 | Eine kritische Betrachtung zur Charakterisierung von Aktivkohlen mittels der Jodzahl. Chemie-Ingenieur-Technik, 2014, 86, 67-71.   | 0.4 | 2         |
| 51 | Characterization of microporous activated carbons using molecular probe method. Carbon, 2014, 74, 22-31.   | 5.4 | 12        |
| 52 | Chemical vapor infiltration of activated carbon with tetramethylsilane. Carbon, 2014, 79, 28-35.   | 5.4 | 4         |
| 53 | Parameter study on the adsorptive drying of isopropanol in a fixed bed adsorber. Separation and Purification Technology, 2014, 132, 736-743.   | 3.9 | 12        |
| 54 | Design and experimental evaluation of a new nanoparticle thermophoretic personal sampler. Journal of Nanoparticle Research, 2013, 15, 1.   | 0.8 | 21        |

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|----|--|-----|-----------|
| 55 | 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        |
| 56 | Adsorptive Entfernung von Schwefelverbindungen aus Erdgas. Chemie-Ingenieur-Technik, 2013, 85, 333-343.  | 0.4 | 4         |
| 57 | Adsorptive Water Removal from Primary Alcohols and Acetic Acid Esters in the ppm-Region. Journal of Chemical & Engineering Data, 2012, 57, 2465-2471.  | 1.0 | 11        |
| 58 | Adsorption of aromatic trace compounds from organic solvents on activated carbons—experimental results and modeling of adsorption equilibria. Adsorption, 2012, 18, 127-141.   | 1.4 | 8         |
| 59 | Adsorption auf der ACHEMA 2012. Chemie-Ingenieur-Technik, 2012, 84, 1466-1468.   | 0.4 | 3         |
| 60 | Adsorptive Water Removal from Organic Solvents in the ppm-Region. Chemie-Ingenieur-Technik, 2011, 83, 177-182.   | 0.4 | 10        |
| 61 | Comparison of membrane contactor and structured packings for CO2 absorption. Energy Procedia, 2011, 4, 1471-1477.  | 1.8 | 15        |
| 62 | Characterisation of CO2 absorption in various solvents for PCC applications by Raman spectroscopy. Energy Procedia, 2011, 4, 1520-1525.  | 1.8 | 17        |
| 63 | Adsorptive Entfernung von Alkoxyphenolen aus Ketonen und Estern mit Aktivkohle—Experimente und Modellierung. Adsorptive Removal of Alkoxyphenols from Ketones and Esters with Activated Carbon—Experiments and Modelling. Chemie-Ingenieur-Technik, 2010, 82, 1763-1769. | 0.4 | 3         |
| 64 | Physical waves in adsorption technology—an overview. Separation and Purification Technology, 2003, 33, 163-177.  | 3.9 | 89        |
| 65 | Effect of Ultrasound on Adsorption and Desorption Processes. Industrial & Engineering Chemistry Research, 2003, 42, 5635-5646.   | 1.8 | 87        |
| 66 | Circle Squaring in International Chemical Engineering Education at the University of Dortmund. Chemie-Ingenieur-Technik, 2001, 73, 617-617.  | 0.4 | 0         |
| 67 | Adsorptionstechnik. , 2001, , .  |     | 96        |
| 68 | Grundlagen der Adsorption. , 2001, , 49-101.   |     | 1         |
| 69 | Technische Desorptionsverfahren. , 2001, , 139-181.  |     | 0         |
| 70 | Diffuse Emissionen an Flanschverbindungen: Einfluss der Flächenpressung. Chemie-Ingenieur-Technik, 2000, 72, 467-473.  | 0.4 | 2         |
| 71 | Untersuchungen zur Beeinflussung von Adsorptionsvorgängen durch Ultraschall. Chemie-Ingenieur-Technik, 2000, 72, 837-840.  | 0.4 | 1         |
| 72 | Leckagemessung an Flanschverbindungen - Das Vakuum-Verfahren. Vakuum in Forschung Und Praxis, 2000, 12, 104-107.   | 0.0 | 0         |

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|----|--|-----|-----------|
| 73 | Elektrothermische Regeneration von Adsorbentien - Ein Überblick über den Stand von Forschung und Entwicklung. Chemie-Ingenieur-Technik, 1999, 71, 1359-1363. | 0.4 | 7         |
| 74 | Gas Adsorption Isotherm for Dealuminated Zeolites. Industrial & Engineering Chemistry Research, 1997, 36, 3993-3994.   | 1.8 | 8         |
| 75 | Experimenteller Vergleich verschiedener thermischer Desorptionsverfahren zur Lösungsmittelrückgewinnung. Chemie-Ingenieur-Technik, 1997, 69, 132-134.        | 0.4 | 3         |