

# Moises Bastos-Neto

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

1,635  
citations

279487

23  
h-index

301761

39  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1783  
citing authors

| #  | ARTICLE                                                                                                                                                                                                                                                      | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Microporous activated carbon prepared from coconut shells using chemical activation with zinc chloride. <i>Microporous and Mesoporous Materials</i> , 2007, 100, 361-364.                                                                                    | 2.2  | 165       |
| 2  | Adsorption equilibria of O <sub>2</sub> , Ar, Kr and Xe on activated carbon and zeolites: single component and mixture data. <i>Adsorption</i> , 2011, 17, 371-383.                                                                                          | 1.4  | 119       |
| 3  | Effects of textural and surface characteristics of microporous activated carbons on the methane adsorption capacity at high pressures. <i>Applied Surface Science</i> , 2007, 253, 5721-5725.                                                                | 3.1  | 88        |
| 4  | Adsorption equilibria of CO <sub>2</sub> and CH <sub>4</sub> in cation-exchanged zeolites 13X. <i>Adsorption</i> , 2016, 22, 71-80.                                                                                                                          | 1.4  | 79        |
| 5  | Assessment of hydrogen storage by physisorption in porous materials. <i>Energy and Environmental Science</i> , 2012, 5, 8294.                                                                                                                                | 15.6 | 75        |
| 6  | Preparation of biomass-based activated carbons and their evaluation for biogas upgrading purposes. <i>Industrial Crops and Products</i> , 2017, 109, 134-140.                                                                                                | 2.5  | 65        |
| 7  | CO <sub>2</sub> and H <sub>2</sub> S Removal from CH <sub>4</sub> -Rich Streams by Adsorption on Activated Carbons Modified with K <sub>2</sub> CO <sub>3</sub> , NaOH, or Fe <sub>2</sub> O <sub>3</sub> . <i>Energy &amp; Fuels</i> , 2016, 30, 9596-9604. | 2.5  | 64        |
| 8  | Carbon Dioxide Capture by Pressure Swing Adsorption. <i>Energy Procedia</i> , 2017, 114, 2182-2192.                                                                                                                                                          | 1.8  | 63        |
| 9  | CO <sub>2</sub> adsorption capacity of zeolites synthesized from coal fly ashes. <i>Fuel</i> , 2020, 276, 118143.                                                                                                                                            | 3.4  | 62        |
| 10 | Studies on the adsorption behavior of CO <sub>2</sub> -CH <sub>4</sub> mixtures using activated carbon. <i>Brazilian Journal of Chemical Engineering</i> , 2013, 30, 939-951.                                                                                | 0.7  | 60        |
| 11 | A Theoretical and Experimental Study of Charge and Discharge Cycles in a Storage Vessel for Adsorbed Natural Gas. <i>Adsorption</i> , 2005, 11, 147-157.                                                                                                     | 1.4  | 50        |
| 12 | Experimental analysis of the efficiency on charge/discharge cycles in natural gas storage by adsorption. <i>Fuel</i> , 2011, 90, 113-119.                                                                                                                    | 3.4  | 47        |
| 13 | Microwave-assisted nitric acid treatment of sepiolite and functionalization with polyethylenimine applied to CO <sub>2</sub> capture and CO <sub>2</sub> /N <sub>2</sub> separation. <i>Applied Surface Science</i> , 2017, 410, 315-325.                    | 3.1  | 43        |
| 14 | Methane Adsorption Storage Using Microporous Carbons Obtained from Coconut Shells. <i>Adsorption</i> , 2005, 11, 911-915.                                                                                                                                    | 1.4  | 42        |
| 15 | Dynamic bed measurements of CO adsorption on microporous adsorbents at high pressures for hydrogen purification processes. <i>Separation and Purification Technology</i> , 2011, 77, 251-260.                                                                | 3.9  | 37        |
| 16 | CO <sub>2</sub> Capture with Mesoporous Silicas Modified with Amines by Double Functionalization: Assessment of Adsorption/Desorption Cycles. <i>Materials</i> , 2018, 11, 887.                                                                              | 1.3  | 36        |
| 17 | Insights into CO <sub>2</sub> adsorption in amino-functionalized SBA-15 synthesized at different aging temperature. <i>Adsorption</i> , 2020, 26, 225-240.                                                                                                   | 1.4  | 36        |
| 18 | CO <sub>2</sub> /CH <sub>4</sub> adsorption separation process using pore expanded mesoporous silicas functionalized by APTES grafting. <i>Adsorption</i> , 2015, 21, 565-575.                                                                               | 1.4  | 29        |

| #  | ARTICLE                                                                                                                                                                                                                          | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Prediction of the monocomponent adsorption of H <sub>2</sub> S and mixtures with CO <sub>2</sub> and CH <sub>4</sub> on activated carbons. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 559, 342-350. | 2.3 | 28        |
| 20 | Ethylene adsorption on chitosan/zeolite composite films for packaging applications. Food Packaging and Shelf Life, 2020, 26, 100584.                                                                                             | 3.3 | 28        |
| 21 | Adsorption Equilibria of Natural Gas Components on Activated Carbon: Pure and Mixed Gas Isotherms. Adsorption Science and Technology, 2008, 26, 323-332.                                                                         | 1.5 | 26        |
| 22 | Assessment of CO <sub>2</sub> desorption from 13X zeolite for a prospective TSA process. Adsorption, 2020, 26, 813-824.                                                                                                          | 1.4 | 26        |
| 23 | Assessing the potential of nanoporous carbon adsorbents from polyethylene terephthalate (PET) to separate CO <sub>2</sub> from flue gas. Adsorption, 2018, 24, 279-291.                                                          | 1.4 | 23        |
| 24 | Adsorption microcalorimetry as a tool in the characterization of amine-grafted mesoporous silicas for CO <sub>2</sub> capture. Adsorption, 2020, 26, 165-175.                                                                    | 1.4 | 23        |
| 25 | Insights on the Mechanisms of H <sub>2</sub> S Retention at Low Concentration on Impregnated Carbons. Industrial & Engineering Chemistry Research, 2018, 57, 2248-2257.                                                          | 1.8 | 22        |
| 26 | Effect of coal fly ash treatments on synthesis of high-quality zeolite A as a potential additive for warm mix asphalt. Materials Chemistry and Physics, 2022, 275, 125197.                                                       | 2.0 | 21        |
| 27 | Evaluation of carbon dioxide–nitrogen separation through fixed bed measurements and simulations. Adsorption, 2014, 20, 945-957.                                                                                                  | 1.4 | 20        |
| 28 | On the structural, textural and morphological features of Fe-based catalysts supported on polystyrene mesoporous carbon for Fischer–Tropsch synthesis. Applied Catalysis A: General, 2015, 495, 72-83.                           | 2.2 | 20        |
| 29 | Evaluation of the thermal regeneration of an amine-grafted mesoporous silica used for CO <sub>2</sub> /N <sub>2</sub> separation. Adsorption, 2020, 26, 203-215.                                                                 | 1.4 | 18        |
| 30 | Deep learning analysis of Ar, Xe, Kr, and O <sub>2</sub> adsorption on Activated Carbon and Zeolites using ANN approach. Chemical Engineering and Processing: Process Intensification, 2022, 170, 108662.                        | 1.8 | 18        |
| 31 | Parametric Analysis of a Moving Bed Temperature Swing Adsorption (MBTSA) Process for Postcombustion CO <sub>2</sub> Capture. Industrial & Engineering Chemistry Research, 2021, 60, 10736-10752.                                 | 1.8 | 16        |
| 32 | Kaolinite-based zeolites synthesis and their application in CO <sub>2</sub> capture processes. Fuel, 2022, 320, 123953.                                                                                                          | 3.4 | 15        |
| 33 | Assessment of the potential use of zeolites synthesized from power plant fly ash to capture CO <sub>2</sub> under post-combustion scenario. Adsorption, 2020, 26, 1153-1164.                                                     | 1.4 | 14        |
| 34 | Siloxane adsorption by porous silica synthesized from residual sand of wastewater treatment. Journal of Environmental Chemical Engineering, 2021, 9, 104805.                                                                     | 3.3 | 14        |
| 35 | Investigation of premature aging of zeolites used in the drying of gas streams. Chemical Engineering Communications, 2019, 206, 1367-1374.                                                                                       | 1.5 | 12        |
| 36 | Effect of Additives to Improve Calcium-Based Sorbents in Semi-Dry Flue Gas Desulphurization. Emission Control Science and Technology, 2020, 6, 105-112.                                                                          | 0.8 | 12        |

| #  | ARTICLE                                                                                                                                                                                                                        | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Pure and Binary Adsorption of Carbon Dioxide and Nitrogen on AQSOA FAM Z02. Journal of Chemical & Engineering Data, 2018, 63, 661-670.                                                                                         | 1.0 | 11        |
| 38 | Effect of ultramicropores on the mechanisms of H <sub>2</sub> S retention from biogas. Chemical Engineering Research and Design, 2020, 154, 241-249.                                                                           | 2.7 | 11        |
| 39 | Water adsorption and hydrothermal stability of CHA zeolites with different Si/Al ratios and compensating cations. Catalysis Today, 2022, 390-391, 99-108.                                                                      | 2.2 | 11        |
| 40 | Representative Pores: An Efficient Method to Characterize Activated Carbons. Frontiers in Chemistry, 2020, 8, 595230.                                                                                                          | 1.8 | 10        |
| 41 | Experimental and theoretical assessment of CO <sub>2</sub> capture by adsorption on clinoptilolite. Chemical Engineering Research and Design, 2022, 177, 640-652.                                                              | 2.7 | 10        |
| 42 | Adsorption Measurements of Nitrogen and Methane in Hydrogen-Rich Mixtures at High Pressures. Industrial & Engineering Chemistry Research, 2011, 50, 10211-10221.                                                               | 1.8 | 9         |
| 43 | Simple Procedure to Estimate Mass Transfer Coefficients from Uptake Curves on Activated Carbons. Chemical Engineering and Technology, 2018, 41, 1622-1630.                                                                     | 0.9 | 9         |
| 44 | LTA Zeolite Characterization Based on Pore Type Distribution. Industrial & Engineering Chemistry Research, 2022, 61, 2268-2279.                                                                                                | 1.8 | 8         |
| 45 | Breakthrough Curves of Methane at High Pressures for H <sub>2</sub> Purification Processes. Chemie-Ingenieur-Technik, 2011, 83, 183-190.                                                                                       | 0.4 | 6         |
| 46 | Zinc Ferrite Nanoparticles via Coprecipitation Modified Method: Glycerol as Structure Directing and Stabilizing Agent. Journal of the Brazilian Chemical Society, 0, , .                                                       | 0.6 | 6         |
| 47 | H <sub>2</sub> S and H <sub>2</sub> O Combined Effect on CO <sub>2</sub> Capture by Amino Functionalized Hollow Microsphere Silicas. Industrial & Engineering Chemistry Research, 2021, 60, 10139-10154.                       | 1.8 | 6         |
| 48 | Mineral sorbents for downstream sodium capture in biomass gasifiers. Fuel Processing Technology, 2015, 138, 629-636.                                                                                                           | 3.7 | 5         |
| 49 | Assessing mass transfer rates in porous adsorbents using gas adsorption microcalorimetry. Chemical Engineering Science, 2021, 229, 115983.                                                                                     | 1.9 | 5         |
| 50 | Simulation of CO <sub>2</sub> /CH <sub>4</sub> high pressure separation on microporous activated carbon. Chemical Engineering Communications, 2019, 206, 1414-1425.                                                            | 1.5 | 2         |
| 51 | Oxidation Behavior of Maraging 300 Alloy Exposed to Nitrogen/Water Vapor Atmosphere at 500 Â°C. Metals, 2021, 11, 1021.                                                                                                        | 1.0 | 2         |
| 52 | Water adsorption in fresh and thermally aged zeolites: equilibrium and kinetics. Adsorption, 2021, 27, 1043-1053.                                                                                                              | 1.4 | 2         |
| 53 | Insights into optimized synthesis conditions of hollow microspheres of silica for water vapor adsorption. Chemical Engineering Research and Design, 2022, 177, 583-593.                                                        | 2.7 | 2         |
| 54 | Neural network protocol to predict interfacial tension for CO <sub>2</sub> /CH <sub>4</sub> /Water-Brine ternary systems under reservoir temperature and pressure ranges. Petroleum Science and Technology, 2022, 40, 181-200. | 0.7 | 2         |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | H2 Reinigung - Experiment und Vorhersage. Chemie-Ingenieur-Technik, 2010, 82, 1573-1573.                                                               | 0.4 | 0         |
| 56 | High-temperature sorption of sodium vapors in typical outlet streams from biomass gasifiers. Brazilian Journal of Chemical Engineering, 2021, 38, 403. | 0.7 | 0         |
| 57 | Performance of adsorption isotherms kernels of CO2 models for $\gamma$ -alumina characterization. Adsorption, 2021, 27, 1035-1042.                     | 1.4 | 0         |
| 58 | Activated Carbons for H2S Capture. Engineering Materials, 2021, , 197-215.                                                                             | 0.3 | 0         |
| 59 | Special issue on the 13th Brazilian meeting on adsorption. Adsorption, 2021, 27, 1001-1002.                                                            | 1.4 | 0         |
| 60 | ZEOLITA 4A PARA PURIFICAÇÃO DO GÁS DE ATERRO SANITÁRIO. Quimica Nova, 0, , .                                                                           | 0.3 | 0         |
| 61 | Nanosponges for Carbon Dioxide Sequestration. Sustainable Agriculture Reviews, 2019, , 1-39.                                                           | 0.6 | 0         |