

Paul A. Webley

List of Publications by Year in descending order

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Version: 2024-02-01

273
papers

17,440
citations

18436

62
h-index

18075

120
g-index

278
all docs

278
docs citations

278
times ranked

16723
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Carbon capture and storage (CCS): the way forward. <i>Energy and Environmental Science</i> , 2018, 11, 1062-1176. | 15.6 | 2,378 |
| 2 | Extraction of oil from microalgae for biodiesel production: A review. <i>Biotechnology Advances</i> , 2012, 30, 709-732. | 6.0 | 825 |
| 3 | Oil extraction from microalgae for biodiesel production. <i>Bioresource Technology</i> , 2011, 102, 178-185. | 4.8 | 565 |
| 4 | CO ₂ capture by adsorption: Materials and process development. <i>International Journal of Greenhouse Gas Control</i> , 2007, 1, 11-18. | 2.3 | 363 |
| 5 | Discriminative Separation of Gases by a "Molecular Trapdoor" Mechanism in Chabazite Zeolites. <i>Journal of the American Chemical Society</i> , 2012, 134, 19246-19253. | 6.6 | 321 |
| 6 | General and Controllable Synthesis of Novel Mesoporous Magnetic Iron Oxide@Carbon Encapsulates for Efficient Arsenic Removal. <i>Advanced Materials</i> , 2012, 24, 485-491. | 11.1 | 312 |
| 7 | Highly Specific Enrichment of Glycopeptides Using Boronic Acid-Functionalized Mesoporous Silica. <i>Analytical Chemistry</i> , 2009, 81, 503-508. | 3.2 | 287 |
| 8 | Microalgal cell disruption for biofuel development. <i>Applied Energy</i> , 2012, 91, 116-121. | 5.1 | 278 |
| 9 | Capture of CO ₂ from high humidity flue gas by vacuum swing adsorption with zeolite 13X. <i>Adsorption</i> , 2008, 14, 415-422. | 1.4 | 276 |
| 10 | Alkali and alkaline-earth cation exchanged chabazite zeolites for adsorption based CO ₂ capture. <i>Microporous and Mesoporous Materials</i> , 2008, 111, 478-487. | 2.2 | 260 |
| 11 | Effect of process parameters on power requirements of vacuum swing adsorption technology for CO ₂ capture from flue gas. <i>Energy Conversion and Management</i> , 2008, 49, 346-356. | 4.4 | 244 |
| 12 | Structured adsorbents in gas separation processes. <i>Separation and Purification Technology</i> , 2010, 70, 243-256. | 3.9 | 213 |
| 13 | Recent progress on fabrication methods of polymeric thin film gas separation membranes for CO ₂ capture. <i>Journal of Membrane Science</i> , 2019, 572, 38-60. | 4.1 | 210 |
| 14 | Ordered Mesoporous Platinum@Graphitic Carbon Embedded Nanophase as a Highly Active, Stable, and Methanol-Tolerant Oxygen Reduction Electrocatalyst. <i>Journal of the American Chemical Society</i> , 2012, 134, 2236-2245. | 6.6 | 208 |
| 15 | Facile Synthesis of Hierarchically Porous Carbons from Dual Colloidal Crystal/Block Copolymer Template Approach. <i>Chemistry of Materials</i> , 2007, 19, 3271-3277. | 3.2 | 207 |
| 16 | Comprehensive Study of Pore Evolution, Mesostructural Stability, and Simultaneous Surface Functionalization of Ordered Mesoporous Carbon (FDU-15) by Wet Oxidation as a Promising Adsorbent. <i>Langmuir</i> , 2010, 26, 10277-10286. | 1.6 | 203 |
| 17 | Capture of CO ₂ from flue gas streams with zeolite 13X by vacuum-pressure swing adsorption. <i>Adsorption</i> , 2008, 14, 575-582. | 1.4 | 199 |
| 18 | One-step hydrothermal synthesis of ordered mesostructured carbonaceous monoliths with hierarchical porosities. <i>Chemical Communications</i> , 2008, , 2641. | 2.2 | 177 |

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|----|--|------|-----------|
| 19 | Preparation of activated carbons from corncob with large specific surface area by a variety of chemical activators and their application in gas storage. <i>Chemical Engineering Journal</i> , 2010, 162, 883-892. | 6.6 | 173 |
| 20 | Adsorption technology for CO ₂ separation and capture: a perspective. <i>Adsorption</i> , 2014, 20, 225-231. | 1.4 | 173 |
| 21 | Post-enrichment of nitrogen in soft-templated ordered mesoporous carbon materials for highly efficient phenol removal and CO ₂ capture. <i>Journal of Materials Chemistry</i> , 2012, 22, 11379. | 6.7 | 154 |
| 22 | CO ₂ Capture by Temperature Swing Adsorption: Use of Hot CO ₂ -Rich Gas for Regeneration. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 703-713. | 1.8 | 153 |
| 23 | Optimum structured adsorbents for gas separation processes. <i>Chemical Engineering Science</i> , 2009, 64, 5182-5191. | 1.9 | 150 |
| 24 | Ordered Mesoporous Crystalline β -Al ₂ O ₃ with Variable Architecture and Porosity from a Single Hard Template. <i>Journal of the American Chemical Society</i> , 2010, 132, 12042-12050. | 6.6 | 141 |
| 25 | Oxidation kinetics of ammonia and ammonia-methanol mixtures in supercritical water in the temperature range 530-700.degree.C at 246 bar. <i>Industrial & Engineering Chemistry Research</i> , 1991, 30, 1745-1754. | 1.8 | 139 |
| 26 | Preparation of ZIF-8 membranes supported on ceramic hollow fibers from a concentrated synthesis gel. <i>Journal of Membrane Science</i> , 2011, 385-386, 187-193. | 4.1 | 139 |
| 27 | Critical review of kinetic data for the oxidation of methanol in supercritical water. <i>Journal of Supercritical Fluids</i> , 2005, 34, 249-286. | 1.6 | 138 |
| 28 | Fundamental kinetics of methane oxidation in supercritical water. <i>Energy & Fuels</i> , 1991, 5, 411-419. | 2.5 | 137 |
| 29 | Advances in carbon capture, utilization and storage. <i>Applied Energy</i> , 2020, 278, 115627. | 5.1 | 135 |
| 30 | A new simplified pressure/vacuum swing adsorption model for rapid adsorbent screening for CO ₂ capture applications. <i>International Journal of Greenhouse Gas Control</i> , 2013, 15, 16-31. | 2.3 | 133 |
| 31 | Porous platinum nanowire arrays for direct ethanol fuel cell applications. <i>Chemical Communications</i> , 2009, , 195-197. | 2.2 | 131 |
| 32 | A comparison of multicomponent electrosorption in capacitive deionization and membrane capacitive deionization. <i>Water Research</i> , 2018, 131, 100-109. | 5.3 | 127 |
| 33 | Advanced adsorbents based on MgO and K ₂ CO ₃ for capture of CO ₂ at elevated temperatures. <i>International Journal of Greenhouse Gas Control</i> , 2011, 5, 634-639. | 2.3 | 126 |
| 34 | Continuous assembly of a polymer on a metal-organic framework (CAP on MOF): a 30 nm thick polymeric gas separation membrane. <i>Energy and Environmental Science</i> , 2018, 11, 544-550. | 15.6 | 125 |
| 35 | Mechanical cell disruption for lipid extraction from microalgal biomass. <i>Bioresource Technology</i> , 2013, 140, 53-63. | 4.8 | 121 |
| 36 | Ultrathin Metal-Organic Framework Nanosheets as a Gutter Layer for Flexible Composite Gas Separation Membranes. <i>ACS Nano</i> , 2018, 12, 11591-11599. | 7.3 | 118 |

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|----|--|-----|-----------|
| 37 | Competition of CO ₂ /H ₂ O in adsorption based CO ₂ capture. Energy Procedia, 2009, 1, 1123-1130. | 1.8 | 114 |
| 38 | Cycle Development and Design for CO ₂ Capture from Flue Gas by Vacuum Swing Adsorption. Environmental Science & Technology, 2008, 42, 563-569. | 4.6 | 111 |
| 39 | Potential for using municipal solid waste as a resource for bioenergy with carbon capture and storage (BECCS). International Journal of Greenhouse Gas Control, 2018, 68, 1-15. | 2.3 | 111 |
| 40 | Two-dimensional nanosheet-based gas separation membranes. Journal of Materials Chemistry A, 2018, 6, 23169-23196. | 5.2 | 109 |
| 41 | Improved removal capacity of magnetite for Cr(VI) by electrochemical reduction. Journal of Hazardous Materials, 2019, 374, 26-34. | 6.5 | 108 |
| 42 | Determination of Composition Range for α -Molecular Trapdoor Effect in Chabazite Zeolite. Journal of Physical Chemistry C, 2013, 117, 12841-12847. | 1.5 | 104 |
| 43 | Effects of amino functionality on uptake of CO ₂ , CH ₄ and selectivity of CO ₂ /CH ₄ on titanium based MOFs. Fuel, 2015, 160, 318-327. | 3.4 | 99 |
| 44 | Ordered mesoporous graphitized pyrolytic carbon materials: synthesis, graphitization, and electrochemical properties. Journal of Materials Chemistry, 2012, 22, 8835. | 6.7 | 87 |
| 45 | Effects of water vapour on CO ₂ capture with vacuum swing adsorption using activated carbon. Chemical Engineering Journal, 2013, 230, 64-72. | 6.6 | 87 |
| 46 | Remediation of heavy metal contaminated soils by organic acid extraction and electrochemical adsorption. Environmental Pollution, 2020, 264, 114745. | 3.7 | 85 |
| 47 | Synthesis of well dispersed polymer grafted metal-organic framework nanoparticles. Chemical Communications, 2015, 51, 15566-15569. | 2.2 | 81 |
| 48 | Revised global kinetic measurements of methanol oxidation in supercritical water. Industrial & Engineering Chemistry Research, 1993, 32, 236-239. | 1.8 | 80 |
| 49 | Direct Electrodeposition of Porous Gold Nanowire Arrays for Biosensing Applications. ChemPhysChem, 2009, 10, 436-441. | 1.0 | 79 |
| 50 | Anomalous Henry's law behavior of nitrogen and carbon dioxide adsorption on alkali-exchanged chabazite zeolites. Separation and Purification Technology, 2009, 67, 336-343. | 3.9 | 79 |
| 51 | Adsorption characteristics of a fully exchanged potassium chabazite zeolite prepared from decomposition of zeolite Y. Microporous and Mesoporous Materials, 2009, 117, 497-507. | 2.2 | 78 |
| 52 | High-throughput CO ₂ capture using PIM-1@MOF based thin film composite membranes. Chemical Engineering Journal, 2020, 396, 125328. | 6.6 | 78 |
| 53 | Silica-templated Synthesis of Ordered Mesoporous Tungsten Carbide/Graphitic Carbon Composites with Nanocrystalline Walls and High Surface Areas via a Temperature-programmed Carburization Route. Small, 2009, 5, 2738-2749. | 5.2 | 76 |
| 54 | High temperature materials for CO ₂ capture. Energy Procedia, 2009, 1, 623-630. | 1.8 | 76 |

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| 55 | Improved methanol yield and selectivity from CO ₂ hydrogenation using a novel Cu-ZnO-ZrO ₂ catalyst supported on Mg-Al layered double hydroxide (LDH). Journal of CO ₂ Utilization, 2019, 29, 57-64. | 3.3 | 76 |
| 56 | Fast solution-adaptive finite volume method for PSA/VSA cycle simulation; 1 single step simulation. Computers and Chemical Engineering, 2000, 23, 1701-1712. | 2.0 | 75 |
| 57 | Increasing both selectivity and permeability of mixed-matrix membranes: Sealing the external surface of porous MOF nanoparticles. Journal of Membrane Science, 2017, 535, 350-356. | 4.1 | 75 |
| 58 | Binary Adsorption Equilibrium of Carbon Dioxide and Water Vapor on Activated Alumina. Langmuir, 2009, 25, 10666-10675. | 1.6 | 72 |
| 59 | Carbon monoxide oxidation in supercritical water: the effects of heat transfer and the water-gas shift reaction on observed kinetics. Energy & Fuels, 1992, 6, 586-597. | 2.5 | 70 |
| 60 | Cage and Window Effects in the Adsorption of <i>n</i> -Alkanes on Chabazite and SAPO-34. Journal of Physical Chemistry C, 2008, 112, 16593-16599. | 1.5 | 66 |
| 61 | Simultaneous biogas purification and CO ₂ capture by vacuum swing adsorption using zeolite NaUSY. Chemical Engineering Journal, 2018, 334, 2593-2602. | 6.6 | 65 |
| 62 | Comparison of Traditional and Structured Adsorbents for CO ₂ Separation by Vacuum-Swing Adsorption. Industrial & Engineering Chemistry Research, 2010, 49, 4832-4841. | 1.8 | 64 |
| 63 | Opportunities for application of BECCS in the Australian power sector. Applied Energy, 2018, 224, 615-635. | 5.1 | 64 |
| 64 | Synthesis, characterization and hydrogen storage properties of microporous carbons templated by cation exchanged forms of zeolite Y with propylene and butylene as carbon precursors. Microporous and Mesoporous Materials, 2007, 102, 159-170. | 2.2 | 61 |
| 65 | Entropic effects and isosteric heats of nitrogen and carbon dioxide adsorption on chabazite zeolites. Microporous and Mesoporous Materials, 2010, 132, 22-30. | 2.2 | 61 |
| 66 | Functionalized UiO-66 by Single and Binary (OH) ₂ and NO ₂ Groups for Uptake of CO ₂ and CH ₄ . Industrial & Engineering Chemistry Research, 2016, 55, 7924-7932. | 1.8 | 61 |
| 67 | One-pot generation of mesoporous carbon supported nanocrystalline calcium oxides capable of efficient CO ₂ capture over a wide range of temperatures. Physical Chemistry Chemical Physics, 2011, 13, 2495-2503. | 1.3 | 60 |
| 68 | Temperature-regulated guest admission and release in microporous materials. Nature Communications, 2017, 8, 15777. | 5.8 | 60 |
| 69 | Postcombustion Carbon Capture Using Thin-Film Composite Membranes. Accounts of Chemical Research, 2019, 52, 1905-1914. | 7.6 | 60 |
| 70 | Adsorption and Separation of C ₁ ~C ₈ Alcohols on SAPO-34. Journal of Physical Chemistry C, 2011, 115, 8117-8125. | 1.5 | 58 |
| 71 | Synthesis of uniform periodic mesoporous organosilica hollow spheres with large-pore size and efficient encapsulation capacity for toluene and the large biomolecule bovine serum albumin. Microporous and Mesoporous Materials, 2010, 132, 543-551. | 2.2 | 57 |
| 72 | Effect of the addition of polyvinylpyrrolidone as a pore-former on microstructure and mechanical strength of porous alumina ceramics. Ceramics International, 2013, 39, 7551-7556. | 2.3 | 56 |

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| 73 | Application of the reaction engineering approach (REA) for modeling intermittent drying under time-varying humidity and temperature. <i>Chemical Engineering Science</i> , 2011, 66, 2149-2156. | 1.9 | 55 |
| 74 | Effect of flue gas impurities on CO ₂ capture performance from flue gas at coal-fired power stations by vacuum swing adsorption. <i>Energy Procedia</i> , 2009, 1, 1115-1122. | 1.8 | 54 |
| 75 | CO ₂ capture using a novel hybrid monolith (H-ZSM5/activated carbon) as adsorbent by combined vacuum and electric swing adsorption (VESA). <i>Chemical Engineering Journal</i> , 2019, 358, 707-717. | 6.6 | 54 |
| 76 | Zeolite synthesis from waste fly ash and its application in CO ₂ capture from flue gas streams. <i>Adsorption</i> , 2011, 17, 795-800. | 1.4 | 51 |
| 77 | The role of water on postcombustion CO ₂ capture by vacuum swing adsorption: Bed layering and purge to feed ratio. <i>AIChE Journal</i> , 2014, 60, 673-689. | 1.8 | 51 |
| 78 | Direct electrodeposition of gold nanotube arrays for sensing applications. <i>Journal of Materials Chemistry</i> , 2008, 18, 463-467. | 6.7 | 50 |
| 79 | MOF Scaffold for a High-Performance Mixed-Matrix Membrane. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8597-8602. | 7.2 | 50 |
| 80 | High-performance Cu ²⁺ adsorption of birnessite using electrochemically controlled redox reactions. <i>Journal of Hazardous Materials</i> , 2018, 354, 107-115. | 6.5 | 50 |
| 81 | Tuning the Morphology of Bismuth Ferrite Nano- and Microcrystals: From Sheets to Fibers. <i>Small</i> , 2007, 3, 1523-1528. | 5.2 | 49 |
| 82 | Direct electrodeposition of Pt nanotube arrays and their enhanced electrocatalytic activities. <i>Electrochemistry Communications</i> , 2009, 11, 190-193. | 2.3 | 49 |
| 83 | Modelling and evaluation of dual-reflux pressure swing adsorption cycles: Part I. Mathematical models. <i>Chemical Engineering Science</i> , 2006, 61, 7223-7233. | 1.9 | 48 |
| 84 | Multi-objective optimisation of a hybrid vacuum swing adsorption and low-temperature post-combustion CO ₂ capture. <i>Journal of Cleaner Production</i> , 2016, 111, 193-203. | 4.6 | 48 |
| 85 | Synthesis of a novel hybrid adsorbent which combines activated carbon and zeolite NaUSY for CO ₂ capture by electric swing adsorption (ESA). <i>Chemical Engineering Journal</i> , 2018, 336, 659-668. | 6.6 | 48 |
| 86 | Intermittent Drying of Mango Tissues: Implementation of the Reaction Engineering Approach. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 1089-1098. | 1.8 | 47 |
| 87 | Performance of mesoporous silicas (MCM-41 and SBA-15) and carbon (CMK-3) in the removal of gas-phase naphthalene: adsorption capacity, rate and regenerability. <i>RSC Advances</i> , 2016, 6, 21193-21203. | 1.7 | 47 |
| 88 | The CIDES process: Fractionation of concentrated microalgal paste for co-production of biofuel, nutraceuticals, and high-grade protein feed. <i>Algal Research</i> , 2016, 19, 299-306. | 2.4 | 47 |
| 89 | Preparation of Activated Carbons with Large Specific Surface Areas from Biomass Corncob and Their Adsorption Equilibrium for Methane, Carbon Dioxide, Nitrogen, and Hydrogen. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 9286-9294. | 1.8 | 46 |
| 90 | Formation and photocatalytic properties of bismuth ferrite submicrocrystals with tunable morphologies. <i>New Journal of Chemistry</i> , 2011, 35, 937. | 1.4 | 46 |

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| 91 | Life cycle analysis (LCA) of low emission methanol and di-methyl ether (DME) derived from natural gas. <i>Fuel</i> , 2018, 220, 871-878. | 3.4 | 46 |
| 92 | Sr-LSX zeolite for air separation. <i>Chemical Engineering Journal</i> , 2019, 362, 482-486. | 6.6 | 46 |
| 93 | Potassium Chabazite: A Potential Nanocontainer for Gas Encapsulation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 22025-22031. | 1.5 | 45 |
| 94 | Converting 3D rigid metal-organic frameworks (MOFs) to 2D flexible networks via ligand exchange for enhanced CO ₂ /N ₂ and CH ₄ /N ₂ separation. <i>Chemical Communications</i> , 2015, 51, 14716-14719. | 2.2 | 45 |
| 95 | The use of reduced copper metal-organic frameworks to facilitate CuAAC click chemistry. <i>Chemical Communications</i> , 2016, 52, 12226-12229. | 2.2 | 44 |
| 96 | Separation of CO ₂ and CH ₄ by Pressure Swing Adsorption Using a Molecular Trapdoor Chabazite Adsorbent for Natural Gas Purification. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 7857-7865. | 1.8 | 44 |
| 97 | Adsorption of CO ₂ , N ₂ , and CH ₄ in Cs-exchanged chabazite: A combination of van der Waals density functional theory calculations and experiment study. <i>Journal of Chemical Physics</i> , 2014, 140, 084705. | 1.2 | 43 |
| 98 | Infrared and convective drying of thin layer of polyvinyl alcohol (PVA)/glycerol/water mixture—The reaction engineering approach (REA). <i>Chemical Engineering and Processing: Process Intensification</i> , 2010, 49, 348-357. | 1.8 | 42 |
| 99 | An optimal trapdoor zeolite for exclusive admission of CO ₂ at industrial carbon capture operating temperatures. <i>Chemical Communications</i> , 2018, 54, 3134-3137. | 2.2 | 42 |
| 100 | Enhancing plasticization-resistance of mixed-matrix membranes with exceptionally high CO ₂ /CH ₄ selectivity through incorporating ZSM-25 zeolite. <i>Journal of Membrane Science</i> , 2019, 583, 23-30. | 4.1 | 42 |
| 101 | Fast Finite-Volume Method for PSA/VSA Cycle Simulation Experimental Validation. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 3217-3224. | 1.8 | 41 |
| 102 | Ordered micro-porous carbon molecular sieves containing well-dispersed platinum nanoparticles for hydrogen storage. <i>Microporous and Mesoporous Materials</i> , 2009, 119, 39-46. | 2.2 | 41 |
| 103 | Impact of operating parameters on CO ₂ capture using carbon monolith by Electrical Swing Adsorption technology (ESA). <i>Chemical Engineering Journal</i> , 2017, 327, 441-453. | 6.6 | 41 |
| 104 | Structured zeolite NaX coatings on ceramic cordierite monolith supports for PSA applications. <i>Microporous and Mesoporous Materials</i> , 2010, 130, 38-48. | 2.2 | 40 |
| 105 | A metal-ion-assisted assembly approach to synthesize disulfide-bridged periodical mesoporous organosilicas with high sulfide contents and efficient adsorption. <i>Applied Surface Science</i> , 2010, 256, 5334-5342. | 3.1 | 40 |
| 106 | Direct synthesis of hierarchical LTA zeolite via a low crystallization and growth rate technique in presence of cetyltrimethylammonium bromide. <i>Journal of Colloid and Interface Science</i> , 2012, 382, 1-12. | 5.0 | 40 |
| 107 | One-step fabrication of ZIF-8/polymer composite spheres by a phase inversion method for gas adsorption. <i>Colloid and Polymer Science</i> , 2013, 291, 2711-2717. | 1.0 | 40 |
| 108 | Assessment of ZIF materials for CO ₂ capture from high pressure natural gas streams. <i>Chemical Engineering Journal</i> , 2015, 280, 486-493. | 6.6 | 40 |

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|-----|---|-----|-----------|
| 109 | Synthesis of Carbonaceous Poly(furfuryl alcohol) Membrane for Water Desalination. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 4175-4180. | 1.8 | 39 |
| 110 | Mathematical modeling of intermittent and convective drying of rice and coffee using the reaction engineering approach (REA). <i>Journal of Food Engineering</i> , 2011, 105, 638-646. | 2.7 | 39 |
| 111 | Promoting CO ₂ hydrogenation to methanol by incorporating adsorbents into catalysts: Effects of hydrotalcite. <i>Chemical Engineering Journal</i> , 2019, 378, 122052. | 6.6 | 39 |
| 112 | Zeolite-supported manganese oxides decrease the Cd uptake of wheat plants in Cd-contaminated weakly alkaline arable soils. <i>Journal of Hazardous Materials</i> , 2021, 419, 126464. | 6.5 | 39 |
| 113 | Dual mode roll-up effect in multicomponent non-isothermal adsorption processes with multilayered bed packing. <i>Chemical Engineering Science</i> , 2011, 66, 1825-1834. | 1.9 | 38 |
| 114 | Modeling of Drying of Food Materials with Thickness of Several Centimeters by the Reaction Engineering Approach (REA). <i>Drying Technology</i> , 2011, 29, 961-973. | 1.7 | 38 |
| 115 | Enrichment of low grade CH ₄ from N ₂ /CH ₄ mixtures using vacuum swing adsorption with activated carbon. <i>Chemical Engineering Science</i> , 2021, 229, 116152. | 1.9 | 38 |
| 116 | Effects of feed gas concentration, temperature and process parameters on vacuum swing adsorption performance for CO ₂ capture. <i>Chemical Engineering Journal</i> , 2015, 265, 47-57. | 6.6 | 37 |
| 117 | Synthesis of Ordered Mesoporous Carbon Materials with Semi-Graphitized Walls via Direct In-situ Silica-Confined Thermal Decomposition of CH ₄ and Their Hydrogen Storage Properties. <i>Topics in Catalysis</i> , 2009, 52, 12-26. | 1.3 | 36 |
| 118 | Biogas upgrading through kinetic separation of carbon dioxide and methane over Rb- and Cs-ZK-5 zeolites. <i>RSC Advances</i> , 2014, 4, 62511-62524. | 1.7 | 36 |
| 119 | SiC nanofiber reinforced porous ceramic hollow fiber membranes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 5841. | 5.2 | 36 |
| 120 | Practical separation performance evaluation of coal mine methane upgrading with carbon molecular sieves. <i>Chemical Engineering Journal</i> , 2019, 367, 295-303. | 6.6 | 36 |
| 121 | Upgrading Biogas at Low Pressure by Vacuum Swing Adsorption. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 404-413. | 1.8 | 35 |
| 122 | Electroreduction of CO ₂ /CO to C ₂ Products: Process Modeling, Downstream Separation, System Integration, and Economic Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 17862-17880. | 1.8 | 35 |
| 123 | Zinc/ZnO core-shell hexagonal nanodisk dendrites and their photoluminescence. <i>Acta Materialia</i> , 2007, 55, 5039-5044. | 3.8 | 34 |
| 124 | Improvement of MCDI operation and design through experiment and modelling: Regeneration with brine and optimum residence time. <i>Desalination</i> , 2017, 417, 36-51. | 4.0 | 34 |
| 125 | Solar Irradiation Induced Transformation of Ferrihydrite in the Presence of Aqueous Fe ²⁺ . <i>Environmental Science & Technology</i> , 2019, 53, 8854-8861. | 4.6 | 34 |
| 126 | Towards sustainable microalgal biomass processing: anaerobic induction of autolytic cell-wall self-ingestion in lipid-rich <i>Nannochloropsis</i> slurries. <i>Green Chemistry</i> , 2019, 21, 2967-2982. | 4.6 | 34 |

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|-----|---|------|-----------|
| 127 | Gating effect for gas adsorption in microporous materials—mechanisms and applications. <i>Chemical Society Reviews</i> , 2022, 51, 1139-1166. | 18.7 | 34 |
| 128 | Modelling and evaluation of dual reflux pressure swing adsorption cycles: Part II. Productivity and energy consumption. <i>Chemical Engineering Science</i> , 2006, 61, 7234-7239. | 1.9 | 33 |
| 129 | The effect of wall porosity and zeolite film thickness on the dynamic behavior of adsorbents in the form of coated monoliths. <i>Separation and Purification Technology</i> , 2011, 81, 191-199. | 3.9 | 33 |
| 130 | Modelling the kinetics of lipid extraction from wet microalgal concentrate: A novel perspective on a classical process. <i>Chemical Engineering Journal</i> , 2014, 242, 234-253. | 6.6 | 33 |
| 131 | Temperature controlled invertible selectivity for adsorption of N ₂ and CH ₄ by molecular trapdoor chabazites. <i>Chemical Communications</i> , 2014, 50, 4544. | 2.2 | 33 |
| 132 | A New Multi-bed Vacuum Swing Adsorption Cycle for CO ₂ Capture from Flue Gas Streams. <i>Energy Procedia</i> , 2017, 114, 2467-2480. | 1.8 | 33 |
| 133 | NO _x removal with efficient recycling of NO ₂ from iron-ore sintering flue gas: A novel cyclic adsorption process. <i>Journal of Hazardous Materials</i> , 2021, 407, 124380. | 6.5 | 33 |
| 134 | Fundamental Kinetics of Methanol Oxidation in Supercritical Water. <i>ACS Symposium Series</i> , 1989, , 259-275. | 0.5 | 32 |
| 135 | Optimization of synthesis procedures for structured PSA adsorbents. <i>Adsorption</i> , 2008, 14, 687-693. | 1.4 | 32 |
| 136 | Zeolite monoliths with hierarchical designed pore network structure: Synthesis and performance. <i>Chemical Engineering Journal</i> , 2013, 223, 48-58. | 6.6 | 32 |
| 137 | CO ₂ capture by vacuum swing adsorption: role of multiple pressure equalization steps. <i>Adsorption</i> , 2015, 21, 509-522. | 1.4 | 32 |
| 138 | Performance of mesoporous silicas and carbon in adsorptive removal of phenanthrene as a typical gaseous polycyclic aromatic hydrocarbon. <i>Microporous and Mesoporous Materials</i> , 2017, 239, 9-18. | 2.2 | 32 |
| 139 | A numerical modelling study of SO ₂ adsorption on activated carbons with new rate equations. <i>Chemical Engineering Journal</i> , 2018, 353, 858-866. | 6.6 | 32 |
| 140 | Effect of water vapor from power station flue gas on CO ₂ capture by vacuum swing adsorption with activated carbon. <i>Journal of Fuel Chemistry and Technology</i> , 2011, 39, 169-174. | 0.9 | 31 |
| 141 | Microwave assisted vacuum regeneration for CO ₂ capture from wet flue gas. <i>Adsorption</i> , 2014, 20, 201-210. | 1.4 | 31 |
| 142 | Li ⁺ /ZSM-25 Zeolite as a CO ₂ Capture Adsorbent with High Selectivity and Improved Adsorption Kinetics, Showing CO ₂ -Induced Framework Expansion. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18933-18941. | 1.5 | 31 |
| 143 | CO ₂ capture from high concentration CO ₂ natural gas by pressure swing adsorption at the CO ₂ CRC Otway site, Australia. <i>International Journal of Greenhouse Gas Control</i> , 2019, 83, 1-10. | 2.3 | 31 |
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