

# Qingyuan Yang

## List of Publications by Citations

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140  
papers

9,053  
citations

53  
h-index

93  
g-index

147  
ext. papers

10,243  
ext. citations

6.3  
avg, IF

6.28  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 140 | Molecular simulation of carbon dioxide/methane/hydrogen mixture adsorption in metal-organic frameworks. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 17776-83   | 3.4  | 466       |
| 139 | Development of computational methodologies for metal-organic frameworks and their application in gas separations. <i>Chemical Reviews</i> , <b>2013</b> , 113, 8261-323  | 68.1 | 394       |
| 138 | A series of isorecticular, highly stable, porous zirconium oxide based metal-organic frameworks. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 9267-71  | 16.4 | 366       |
| 137 | Functionalizing porous zirconium terephthalate UiO-66(Zr) for natural gas upgrading: a computational exploration. <i>Chemical Communications</i> , <b>2011</b> , 47, 9603-5  | 5.8  | 298       |
| 136 | A water stable metal-organic framework with optimal features for CO <sub>2</sub> capture. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 10316-20  | 16.4 | 265       |
| 135 | Influence of framework metal ions on the dye capture behavior of MIL-100 (Fe, Cr) MOF type solids. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 8534   | 13   | 249       |
| 134 | Molecular simulation of adsorption and diffusion of hydrogen in metal-organic frameworks. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 11862-4  | 3.4  | 242       |
| 133 | An in situ self-assembly template strategy for the preparation of hierarchical-pore metal-organic frameworks. <i>Nature Communications</i> , <b>2015</b> , 6, 8847   | 17.4 | 225       |
| 132 | Computational Study of CO <sub>2</sub> Storage in Metal-Organic Frameworks. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 1562-1569  | 3.8  | 222       |
| 131 | Molecular simulation of separation of CO <sub>2</sub> from flue gases in CU-BTC metal-organic framework. <i>AIChE Journal</i> , <b>2007</b> , 53, 2832-2840  | 3.6  | 218       |
| 130 | Confinement of Ionic Liquids in Nanocages: Tailoring the Molecular Sieving Properties of ZIF-8 for Membrane-Based CO <sub>2</sub> Capture. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 15483-7  | 16.4 | 213       |
| 129 | Understanding hydrogen adsorption in metal-organic frameworks with open metal sites: a computational study. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 655-8  | 3.4  | 194       |
| 128 | An evaluation of UiO-66 for gas-based applications. <i>Chemistry - an Asian Journal</i> , <b>2011</b> , 6, 3270-80   | 4.5  | 158       |
| 127 | Understanding the Thermodynamic and Kinetic Behavior of the CO <sub>2</sub> /CH <sub>4</sub> Gas Mixture within the Porous Zirconium Terephthalate UiO-66(Zr): A Joint Experimental and Modeling Approach. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 13768-13774 | 3.8  | 154       |
| 126 | CH <sub>4</sub> storage and CO <sub>2</sub> capture in highly porous zirconium oxide based metal-organic frameworks. <i>Chemical Communications</i> , <b>2012</b> , 48, 9831-3   | 5.8  | 150       |
| 125 | Rational construction of defects in a metal-organic framework for highly efficient adsorption and separation of dyes. <i>Chemical Engineering Journal</i> , <b>2016</b> , 289, 486-493   | 14.7 | 149       |
| 124 | Large breathing of the MOF MIL-47(VIV) under mechanical pressure: a joint experimental-modelling exploration. <i>Chemical Science</i> , <b>2012</b> , 3, 1100  | 9.4  | 149       |

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|-----|---|------|-----|
| 123 | Efficient capture of nitrobenzene from waste water using metal-organic frameworks. <i>Chemical Engineering Journal</i> , <b>2014</b> , 246, 142-149   | 14.7 | 141 |
| 122 | Electrostatic-field-induced enhancement of gas mixture separation in metal-organic frameworks: a computational study. <i>ChemPhysChem</i> , <b>2006</b> , 7, 1417-21  | 3.2  | 137 |
| 121 | Acid-functionalized UiO-66(Zr) MOFs and their evolution after intra-framework cross-linking: structural features and sorption properties. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 3294-3309  | 13   | 135 |
| 120 | The stability and defluoridation performance of MOFs in fluoride solutions. <i>Microporous and Mesoporous Materials</i> , <b>2014</b> , 185, 72-78  | 5.3  | 129 |
| 119 | A robust amino-functionalized titanium(IV) based MOF for improved separation of acid gases. <i>Chemical Communications</i> , <b>2013</b> , 49, 10082-4  | 5.8  | 123 |
| 118 | Adsorption and separation of binary mixtures in a metal-organic framework Cu-BTC: A computational study. <i>Separation and Purification Technology</i> , <b>2008</b> , 60, 30-35  | 8.3  | 122 |
| 117 | Probing the dynamics of CO <sub>2</sub> and CH <sub>4</sub> within the porous zirconium terephthalate UiO-66(Zr): a synergic combination of neutron scattering measurements and molecular simulations. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 8882-9 | 4.8  | 118 |
| 116 | Understanding the Adsorption and Diffusion of Carbon Dioxide in Zeolitic Imidazolate Frameworks: A Molecular Simulation Study. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 5004-5009  | 3.8  | 111 |
| 115 | Enhanced Adsorption Selectivity of Hydrogen/Methane Mixtures in Metal-Organic Frameworks with Interpenetration: A Molecular Simulation Study. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 9854-9860   | 2.8  | 109 |
| 114 | Li-modified metal-organic frameworks for CO <sub>2</sub> /CH <sub>4</sub> separation: a route to achieving high adsorption selectivity. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 706-714   |      | 107 |
| 113 | Protic ionic liquid [Bim][NTf <sub>2</sub> ] with strong hydrogen bond donating ability for highly efficient ammonia absorption. <i>Green Chemistry</i> , <b>2017</b> , 19, 937-945   | 10   | 104 |
| 112 | Mixed matrix membranes incorporated with amine-functionalized titanium-based metal-organic framework for CO <sub>2</sub> /CH <sub>4</sub> separation. <i>Journal of Membrane Science</i> , <b>2015</b> , 478, 130-139   | 9.6  | 104 |
| 111 | Materials genomics methods for high-throughput construction of COFs and targeted synthesis. <i>Nature Communications</i> , <b>2018</b> , 9, 5274  | 17.4 | 104 |
| 110 | Revealing the structure-property relationships of metal-organic frameworks for CO <sub>2</sub> capture from flue gas. <i>Langmuir</i> , <b>2012</b> , 28, 12094-9   | 4    | 103 |
| 109 | Probing the adsorption performance of the hybrid porous MIL-68(Al): a synergic combination of experimental and modelling tools. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 10210   |      | 98  |
| 108 | Novel Biological Functions of ZIF-NP as a Delivery Vehicle: High Pulmonary Accumulation, Favorable Biocompatibility, and Improved Therapeutic Outcome. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 2715-2727   | 15.6 | 98  |
| 107 | Two-Dimensional Covalent Triazine Framework Membrane for Helium Separation and Hydrogen Purification. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 8694-701   | 9.5  | 96  |
| 106 | A GO-assisted method for the preparation of ultrathin covalent organic framework membranes for gas separation. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 13444-13449   | 13   | 96  |

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|-----|--|------|----|
| 105 | Preparation of thin film nanocomposite membranes with surface modified MOF for high flux organic solvent nanofiltration. <i>AIChE Journal</i> , <b>2017</b> , 63, 1303-1312  | 3.6  | 84 |
| 104 | Comparative Study of Separation Performance of COFs and MOFs for CH <sub>4</sub> /CO <sub>2</sub> /H <sub>2</sub> Mixtures. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2010</b> , 49, 2902-2906                                 | 3.9  | 83 |
| 103 | High-Flux Graphene Oxide Membranes Intercalated by Metal-Organic Framework with Highly Selective Separation of Aqueous Organic Solution. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 1710-1718                              | 4.5  | 78 |
| 102 | A hybrid zeolitic imidazolate framework membrane by mixed-linker synthesis for efficient CO <sub>2</sub> capture. <i>Chemical Communications</i> , <b>2013</b> , 49, 600-2   | 5.8  | 78 |
| 101 | Ionic Liquid/Metal-Organic Framework Composites for H <sub>2</sub> S Removal from Natural Gas: A Computational Exploration. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 3674-3683  | 3.8  | 73 |
| 100 | Large-scale computational screening of metal-organic frameworks for CH <sub>4</sub> /H <sub>2</sub> separation. <i>AIChE Journal</i> , <b>2012</b> , 58, 2078-2084   | 3.6  | 73 |
| 99  | Computational Study on the Influences of Framework Charges on CO <sub>2</sub> Uptake in Metal-Organic Frameworks. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2009</b> , 48, 10479-10484   | 3.9  | 72 |
| 98  | Adsorption Behavior of Metal-Organic Frameworks for Thiophenic Sulfur from Diesel Oil. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 12449-12455  | 3.9  | 64 |
| 97  | Few-layered ultrathin covalent organic framework membranes for gas separation: a computational study. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 124-131   | 13   | 62 |
| 96  | Pebax-based composite membranes with high gas transport properties enhanced by ionic liquids for CO <sub>2</sub> separation. <i>RSC Advances</i> , <b>2017</b> , 7, 6422-6431  | 3.7  | 61 |
| 95  | Crystal-State Photochromism and Dual-Mode Mechanochromism of an Organic Molecule with Fluorescence, Room-Temperature Phosphorescence, and Delayed Fluorescence. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 16445-16450 | 16.4 | 61 |
| 94  | Computational study of the effect of organic linkers on natural gas upgrading in metal-organic frameworks. <i>Microporous and Mesoporous Materials</i> , <b>2010</b> , 130, 76-82  | 5.3  | 61 |
| 93  | Exploring the structure-property relationships of covalent organic frameworks for noble gas separations. <i>Chemical Engineering Science</i> , <b>2017</b> , 168, 456-464  | 4.4  | 60 |
| 92  | Adsorption and Diffusion of Light Hydrocarbons in UiO-66(Zr): A Combination of Experimental and Modeling Tools. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 27470-27482  | 3.8  | 60 |
| 91  | Mixed-matrix membranes containing functionalized porous metal-organic polyhedrons for the effective separation of CO <sub>2</sub> -CH <sub>4</sub> mixture. <i>Chemical Communications</i> , <b>2015</b> , 51, 4249-51                           | 5.8  | 60 |
| 90  | A Water Stable Metal-Organic Framework with Optimal Features for CO <sub>2</sub> Capture. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 10506-10510  | 3.6  | 59 |
| 89  | A new metal-organic framework with high stability based on zirconium for sensing small molecules. <i>Microporous and Mesoporous Materials</i> , <b>2013</b> , 171, 118-124   | 5.3  | 58 |
| 88  | Theoretical investigation of gas separation in functionalized nanoporous graphene membranes. <i>Applied Surface Science</i> , <b>2017</b> , 407, 532-539   | 6.7  | 57 |

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|----|--|------|----|
| 87 | Enhancing CO <sub>2</sub> adsorption and separation ability of Zr(IV)-based metal-organic frameworks through ligand functionalization under the guidance of the quantitative structure-property relationship model. <i>Chemical Engineering Journal</i> , <b>2016</b> , 289, 247-253 | 14.7 | 53 |
| 86 | Computational exploration of a Zr-carboxylate based metal-organic framework as a membrane material for CO <sub>2</sub> capture. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 1657-1661   | 13   | 53 |
| 85 | Helium Recovery by a Cu-BTC Metal-Organic-Framework Membrane. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 11274-11278   | 3.9  | 51 |
| 84 | Revealing the structure-property relationship of covalent organic frameworks for CO <sub>2</sub> capture from postcombustion gas: a multi-scale computational study. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 15189-98   | 3.6  | 48 |
| 83 | An ultrastable Zr metal-organic framework with a thiophene-type ligand containing methyl groups. <i>CrystEngComm</i> , <b>2015</b> , 17, 3586-3590   | 3.3  | 47 |
| 82 | Confinement of Ionic Liquids in Nanocages: Tailoring the Molecular Sieving Properties of ZIF-8 for Membrane-Based CO <sub>2</sub> Capture. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 15703-15707   | 3.6  | 47 |
| 81 | Exploration of nanoporous graphene membranes for the separation of N <sub>2</sub> from CO <sub>2</sub> : a multi-scale computational study. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 8352-8  | 3.6  | 46 |
| 80 | A force field for dynamic Cu-BTC metal-organic framework. <i>Journal of Molecular Modeling</i> , <b>2011</b> , 17, 227-34  | 3.4  | 46 |
| 79 | Exploration of the Long-Chain N-Alkanes Adsorption and Diffusion in the MOF-Type MIL-47 (V) Material by Combining Experimental and Molecular Simulation Tools. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 13868-13876   | 3.8  | 46 |
| 78 | Molecular simulation study of the stepped behaviors of gas adsorption in two-dimensional covalent organic frameworks. <i>Langmuir</i> , <b>2009</b> , 25, 2302-8   | 4    | 46 |
| 77 | Influence of the Organic Ligand Functionalization on the Breathing of the Porous Iron Terephthalate Metal Organic Framework Type Material upon Hydrocarbon Adsorption. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 18683-18695                                       | 3.8  | 44 |
| 76 | Molecular Simulation of CO <sub>2</sub> /H <sub>2</sub> Mixture Separation in Metal-organic Frameworks: Effect of Catenation and Electrostatic Interactions. <i>Chinese Journal of Chemical Engineering</i> , <b>2009</b> , 17, 781-790  | 3.2  | 40 |
| 75 | Effects of ionic liquid dispersion in metal-organic frameworks and covalent organic frameworks on CO <sub>2</sub> capture: A computational study. <i>Chemical Engineering Science</i> , <b>2016</b> , 140, 1-9   | 4.4  | 39 |
| 74 | A high surface area Zr(IV)-based metal-organic framework showing stepwise gas adsorption and selective dye uptake. <i>Journal of Solid State Chemistry</i> , <b>2015</b> , 223, 104-108  | 3.3  | 37 |
| 73 | Molecular simulation of hydrogen diffusion in interpenetrated metal-organic frameworks. <i>Physical Chemistry Chemical Physics</i> , <b>2008</b> , 10, 3244-9  | 3.6  | 37 |
| 72 | Highly selective adsorption and separation of aniline/phenol from aqueous solutions by microporous MIL-53(Al): a combined experimental and computational study. <i>Langmuir</i> , <b>2014</b> , 30, 12229-35   | 4.5  | 35 |
| 71 | Guest dependent pressure behavior of the flexible MIL-53(Cr): a computational exploration. <i>Dalton Transactions</i> , <b>2012</b> , 41, 3915-9   | 4.3  | 34 |
| 70 | Ionic liquid functionalized multi-walled carbon nanotubes/zeolitic imidazolate framework hybrid membranes for efficient H <sub>2</sub> /CO <sub>2</sub> separation. <i>Chemical Communications</i> , <b>2015</b> , 51, 17281-4   | 5.8  | 32 |

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|----|---|------|----|
| 69 | Hydrocarbon adsorption in the isostructural metal organic frameworks MIL-53(Cr) and MIL-47(V). <i>Microporous and Mesoporous Materials</i> , <b>2011</b> , 140, 114-119   | 5.3  | 32 |
| 68 | Computational screening of covalent organic frameworks for CH <sub>4</sub> /H <sub>2</sub> , CO <sub>2</sub> /H <sub>2</sub> and CO <sub>2</sub> /CH <sub>4</sub> separations. <i>Microporous and Mesoporous Materials</i> , <b>2015</b> , 210, 142-148 | 5.3  | 31 |
| 67 | Synthesis of MIL-88B(Fe)/Matrimid mixed-matrix membranes with high hydrogen permselectivity. <i>RSC Advances</i> , <b>2015</b> , 5, 7253-7259   | 3.7  | 30 |
| 66 | Computational exploration of H <sub>2</sub> S/CH <sub>4</sub> mixture separation using acid-functionalized UiO-66(Zr) membrane and composites. <i>Chinese Journal of Chemical Engineering</i> , <b>2015</b> , 23, 1291-1299                             | 3.2  | 30 |
| 65 | Computational screening of covalent organic frameworks for the capture of radioactive iodine and methyl iodide. <i>CrystEngComm</i> , <b>2017</b> , 19, 4920-4926   | 3.3  | 29 |
| 64 | Recovery of acetone from aqueous solution by ZIF-7/PDMS mixed matrix membranes. <i>RSC Advances</i> , <b>2015</b> , 5, 28394-28400  | 3.7  | 29 |
| 63 | Quantum Sieving in Metal-Organic Frameworks: A Computational Study. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 434-442  | 3.9  | 29 |
| 62 | Enhancement of CO <sub>2</sub> /N <sub>2</sub> Mixture Separation Using the Thermodynamic Stepped Behavior of Adsorption in Metal-Organic Frameworks. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 2790-2797                             | 3.8  | 28 |
| 61 | MicroRNA-223-3p modulates dendritic cell function and ameliorates experimental autoimmune myocarditis by targeting the NLRP3 inflammasome. <i>Molecular Immunology</i> , <b>2020</b> , 117, 73-83   | 4.3  | 28 |
| 60 | High-throughput computational screening and design of nanoporous materials for methane storage and carbon dioxide capture. <i>Green Energy and Environment</i> , <b>2018</b> , 3, 107-119   | 5.7  | 27 |
| 59 | Computational study of nanoparticle dispersion and spatial distribution in polymer matrix under oscillatory shear flow. <i>Langmuir</i> , <b>2013</b> , 29, 13932-42  | 4    | 27 |
| 58 | Computational exploration of metal-organic frameworks for CO <sub>2</sub> /CH <sub>4</sub> separation via temperature swing adsorption. <i>Chemical Engineering Science</i> , <b>2014</b> , 120, 59-66  | 4.4  | 25 |
| 57 | PEG-stabilized coaxial stacking of two-dimensional covalent organic frameworks for enhanced photocatalytic hydrogen evolution. <i>Nature Communications</i> , <b>2021</b> , 12, 3934  | 17.4 | 25 |
| 56 | Effect of exercise-based cardiac rehabilitation on anxiety and depression in patients with myocardial infarction: A systematic review and meta-analysis. <i>Heart and Lung: Journal of Acute and Critical Care</i> , <b>2019</b> , 48, 1-7              | 2.6  | 25 |
| 55 | Molecular simulation study of role of polymer-particle interactions in the strain-dependent viscoelasticity of elastomers (Payne effect). <i>Journal of Chemical Physics</i> , <b>2014</b> , 141, 104901  | 3.9  | 23 |
| 54 | Graphene-like Poly(triazine imide) as N <sub>2</sub> -Selective Ultrathin Membrane for Postcombustion CO <sub>2</sub> Capture. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 28782-28788  | 3.8  | 22 |
| 53 | In Silico Screening of MOFs with open copper sites for C <sub>2</sub> H <sub>2</sub> /CO <sub>2</sub> separation. <i>AIChE Journal</i> , <b>2018</b> , 64, 4089-4096  | 3.6  | 21 |
| 52 | Computational study of oxygen adsorption in metal-organic frameworks with exposed cation sites: effect of framework metal ions. <i>RSC Advances</i> , <b>2015</b> , 5, 33432-33437  | 3.7  | 21 |

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|----|--|------|----|
| 51 | Correlation and prediction of the thermal conductivity of amorphous polymers. <i>Fluid Phase Equilibria</i> , <b>2001</b> , 181, 195-202   | 2.5  | 21 |
| 50 | A robust calcium-based microporous metal-organic framework for efficient CH <sub>4</sub> /N <sub>2</sub> separation. <i>Chemical Engineering Journal</i> , <b>2021</b> , 408, 127294   | 14.7 | 21 |
| 49 | Ultrahigh effective H <sub>2</sub> /D <sub>2</sub> separation in an ultramicroporous metal-organic framework material through quantum sieving. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 19954-19959          | 13   | 21 |
| 48 | A new type of halogen bond involving multivalent astatine: an ab initio study. <i>Physical Chemistry Chemical Physics</i> , <b>2019</b> , 21, 15310-15318  | 3.6  | 20 |
| 47 | Molecular mechanisms for surfactant-aided oil removal from a solid surface. <i>Applied Surface Science</i> , <b>2015</b> , 359, 98-105   | 6.7  | 20 |
| 46 | Construction of stable IL@MOF composite with multiple adsorption sites for efficient ammonia capture from dry and humid conditions. <i>Chemical Engineering Journal</i> , <b>2020</b> , 401, 126106                            | 14.7 | 20 |
| 45 | Effects of the side pockets on gas separation in metal-organic framework Cu-BTC: a molecular simulation study. <i>Molecular Simulation</i> , <b>2009</b> , 35, 1249-1255   | 2    | 16 |
| 44 | Crystal-State Photochromism and Dual-Mode Mechanochromism of an Organic Molecule with Fluorescence, Room-Temperature Phosphorescence, and Delayed Fluorescence. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 16597-16602      | 3.6  | 15 |
| 43 | Microporous Metal-Organic Frameworks with Hydrophilic and Hydrophobic Pores for Efficient Separation of CH <sub>4</sub> /N <sub>2</sub> Mixture. <i>ACS Omega</i> , <b>2019</b> , 4, 14511-14516                               | 3.9  | 14 |
| 42 | Computational design of metal-organic frameworks for aniline recovery from aqueous solution. <i>CrystEngComm</i> , <b>2013</b> , 15, 9588  | 3.3  | 14 |
| 41 | Computer Simulations of Adsorption Characteristics of Carbon Dioxide in Slit Graphite Pores. <i>Canadian Journal of Chemical Engineering</i> , <b>2008</b> , 82, 580-589   | 2.3  | 13 |
| 40 | Guest-modulation of the mechanical properties of flexible porous metal-organic frameworks. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 9691-9698  | 13   | 12 |
| 39 | Materials genomics-guided ab initio screening of MOFs with open copper sites for acetylene storage. <i>AIChE Journal</i> , <b>2018</b> , 64, 1389-1398   | 3.6  | 12 |
| 38 | Highly efficient CO <sub>2</sub> capture and conversion of a microporous acylamide functionalized rht-type metal-organic framework. <i>Inorganic Chemistry Frontiers</i> , <b>2020</b> , 7, 1939-1948                          | 6.8  | 11 |
| 37 | Large-Scale Screening and Design of Metal-Organic Frameworks for CH <sub>4</sub> /N <sub>2</sub> Separation. <i>Chemistry - an Asian Journal</i> , <b>2019</b> , 14, 3688-3693   | 4.5  | 11 |
| 36 | Methane adsorption in several series of newly synthesised metal-organic frameworks: a molecular simulation study. <i>Molecular Simulation</i> , <b>2010</b> , 36, 682-692  | 2    | 11 |
| 35 | High-throughput computational screening of Cu-MOFs with open metal sites for efficient C <sub>2</sub> H <sub>2</sub> /C <sub>2</sub> H <sub>4</sub> separation. <i>Green Energy and Environment</i> , <b>2020</b> , 5, 333-340 | 5.7  | 10 |
| 34 | Large-Scale Structural Refinement and Screening of Zirconium Metal-Organic Frameworks for HS/CH <sub>4</sub> Separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 46984-46992                         | 9.5  | 10 |

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|----|--|-----|----|
| 33 | The lncRNA ANRIL regulates endothelial dysfunction by targeting the let-7b/TGF- $\beta$ 1 signalling pathway. <i>Journal of Cellular Physiology</i> , <b>2021</b> , 236, 2058-2069   | 7   | 10 |
| 32 | A Computational Exploration of the CO Adsorption in Cation-Exchanged Faujasites. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 24512-24521   | 3.8 | 9  |
| 31 | Molecular simulation of adsorption of HCFC-22 in pillared clays. <i>AIChE Journal</i> , <b>2005</b> , 51, 281-291  | 3.6 | 9  |
| 30 | A modified PSRK model for the prediction of the vapor-liquid equilibria of asymmetric systems. <i>Fluid Phase Equilibria</i> , <b>2001</b> , 192, 103-120  | 2.5 | 9  |
| 29 | Quantum sieving of H <sub>2</sub> /D <sub>2</sub> in MOFs: a study on the correlation between the separation performance, pore size and temperature. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 6319-6327  | 13  | 8  |
| 28 | Computer-Aided Discovery of MOFs with Calixarene-Analogous Microenvironment for Exceptional SF <sub>6</sub> Capture. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 5108-5114   | 9.6 | 8  |
| 27 | A Multiscale Evaluation of the Coupling Relationship between Urban Land and Carbon Emissions: A Case Study of Chongqing, China. <i>International Journal of Environmental Research and Public Health</i> , <b>2020</b> , 17,   | 4.6 | 7  |
| 26 | Molecular simulation study of the quantum effects of hydrogen adsorption in metal-organic frameworks: influences of pore size and temperature. <i>Molecular Simulation</i> , <b>2009</b> , 35, 748-754   | 2   | 7  |
| 25 | Methane diffusion mechanism in catenated metal-organic frameworks. <i>Molecular Simulation</i> , <b>2009</b> , 35, 373-380   | 2   | 7  |
| 24 | Studies of capillary phase transitions of methane in metal-organic frameworks by gauge cell Monte Carlo simulation. <i>Langmuir</i> , <b>2010</b> , 26, 5160-6   | 4   | 7  |
| 23 | Molecular simulation of vapor-liquid equilibria of toxic gases. <i>Fluid Phase Equilibria</i> , <b>2004</b> , 220, 1-6   | 2.5 | 7  |
| 22 | Enhanced Methane Adsorption in Catenated Metal-organic Frameworks: A Molecular Simulation Study. <i>Chinese Journal of Chemical Engineering</i> , <b>2009</b> , 17, 580-584  | 3.2 | 6  |
| 21 | Atomistic molecular dynamics simulation of liquid carbon tetrachloride confined in pillared pore materials. <i>Chemical Engineering Science</i> , <b>2005</b> , 60, 767-775  | 4.4 | 6  |
| 20 | Calcium-Based Metal-Organic Framework for Efficient Capture of Sulfur Hexafluoride at Low Concentrations. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2021</b> , 60, 5976-5983   | 3.9 | 6  |
| 19 | A robust metal-organic framework with guest molecules induced splint-like pore confinement to construct propane-trap for propylene purification. <i>Separation and Purification Technology</i> , <b>2021</b> , 279, 119656   | 8.3 | 6  |
| 18 | Computational Insights on the Role of Nanochannel Environment in the CO <sub>2</sub> /CH <sub>4</sub> and H <sub>2</sub> /CH <sub>4</sub> Separation Using Restacked Covalent Organic Framework Membranes. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 22949-22958 | 3.8 | 5  |
| 17 | Adsorption of methane in heterometallic metal-organic frameworks with anions: a molecular simulation study. <i>Molecular Simulation</i> , <b>2009</b> , 35, 213-219  | 2   | 5  |
| 16 | A Group Contribution Model for the Prediction of the Thermal Conductivity of Polymer Melts. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 4151-4153   | 3.9 | 5  |

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| 15 | Identifying Promising Covalent-Organic Frameworks for Decarburization and Desulfurization from Biogas via Computational Screening. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 8858-8867  | 8.3  | 5 |
| 14 | New Model for the Prediction of the Pressure Dependence of Thermal Conductivity of Polymer Melts. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 4000-4004  | 3.9  | 4 |
| 13 | Accelerating the Selection of Covalent Organic Frameworks with Automated Machine Learning. <i>ACS Omega</i> , <b>2021</b> , 6, 17149-17161  | 3.9  | 4 |
| 12 | Probing Au <sup>+</sup> O and Au <sup>+</sup> P regium bonding interaction in AuX (X=F, Cl, Br) <sup>+</sup> RPHOH (R=CH <sub>3</sub> , F, CF <sub>3</sub> , NH <sub>2</sub> , CN) complexes. <i>Computational and Theoretical Chemistry</i> , <b>2020</b> , 1179, 112800 | 2    | 3 |
| 11 | Probing the halogen bond donation ability of multivalent At-center in AtX <sub>n</sub> (X=F, Cl, Br, I; n=1, 3, 5) <sup>+</sup> H <sub>2</sub> O/H <sub>2</sub> S complexes. <i>Computational and Theoretical Chemistry</i> , <b>2021</b> , 1195, 113090                  | 2    | 3 |
| 10 | Bimetallic MOF-Derived Sulfides with Heterojunction Interfaces Synthesized for Photocatalytic Hydrogen Evolution. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2021</b> , 60, 11439-11449  | 3.9  | 3 |
| 9  | Reversed C <sub>2</sub> H <sub>6</sub> /C <sub>2</sub> H <sub>4</sub> separation in interpenetrated diamondoid coordination networks with enhanced host-guest interaction. <i>Separation and Purification Technology</i> , <b>2021</b> , 276, 119385                      | 8.3  | 3 |
| 8  | PtCu@Ir-PCN-222: Synergistic Catalysis of Bimetallic PtCu Nanowires in Hydrosilane-Concentrated Interspaces of an Iridium(III)Porphyrin-Based Metal-Organic Framework. <i>ACS Catalysis</i> , <b>2022</b> , 12, 3604-3614   | 12.1 | 3 |
| 7  | Silver Nanoparticles Prepared by One-Step Reaction via Reducibility of a Metal-Organic Framework to Remove the Toxic Bromine Ions. <i>Journal of Chemical &amp; Engineering Data</i> , <b>2021</b> , 66, 535-543  | 2.8  | 2 |
| 6  | Molecular Modeling of Gas Separation in Metal-Organic Frameworks <b>2015</b> , 295-337  |      | 1 |
| 5  | Exploration of the Influences of the PODE3 Additive on the Initial Pyrolysis of Diesel by ReaxFF Molecular Dynamics Simulations. <i>Energy &amp; Fuels</i> , <b>2021</b> , 35, 9825-9835  | 4.1  | 1 |
| 4  | MGRNN: Structure Generation of Molecules Based on Graph Recurrent Neural Networks. <i>Molecular Informatics</i> , <b>2021</b> , 40, e2100091  | 3.8  | 1 |
| 3  | Analyzing acetylene adsorption of metal-organic frameworks based on machine learning. <i>Green Energy and Environment</i> , <b>2021</b> ,   | 5.7  | 1 |
| 2  | In Silico Screening and Experimental Study of Anion-Pillared Metal-Organic Frameworks for Hydrogen Isotope Separation. <i>Separation and Purification Technology</i> , <b>2022</b> , 121286   | 8.3  | 1 |
| 1  | Prediction of Methane Storage in Covalent Organic Frameworks Using Big-Data-Mining Approach. <i>Chinese Journal of Chemical Engineering</i> , <b>2021</b> , 39, 286-286   | 3.2  | 0 |