

# Vahid Pirouzfar

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

1,594  
citations

257450

24  
h-index

330143

37  
g-index

64  
all docs

64  
docs citations

64  
times ranked

1001  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Comprehensive overview on diesel additives to reduce emissions, enhance fuel properties and improve engine performance. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 74, 891-901.  | 16.4 | 134       |
| 2  | Enhancing the properties and gas separation performance of PBI/polyimides blend carbon molecular sieve membranes via optimization of the pyrolysis process. <i>Separation and Purification Technology</i> , 2014, 122, 278-289.   | 7.9  | 105       |
| 3  | Enhanced gas transport properties in silica nanoparticle filler-polystyrene nanocomposite membranes. <i>Colloid and Polymer Science</i> , 2017, 295, 215-226.   | 2.1  | 77        |
| 4  | An experimental study on absorption/stripping CO <sub>2</sub> using mono-ethanol amine hollow fiber membrane contactor. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 80, 954-962.   | 5.3  | 74        |
| 5  | Investigating the influence of additives-fuel on diesel engine performance and emissions: Analytical modeling and experimental validation. <i>Fuel</i> , 2016, 171, 167-177.  | 6.4  | 68        |
| 6  | Synthesis of modified catalyst and stabilization of CuO/NH <sub>4</sub> ZSM-5 for conversion of methanol to gasoline. <i>International Journal of Applied Ceramic Technology</i> , 2018, 15, 734-741.   | 2.1  | 63        |
| 7  | Novel nanocomposite membranes prepared with PVC/ABS and silica nanoparticles for C <sub>2</sub> H <sub>6</sub> /CH <sub>4</sub> separation. <i>Polymer Science - Series A</i> , 2017, 59, 566-574.  | 1.0  | 62        |
| 8  | CO <sub>2</sub> /N <sub>2</sub> Separation Using Polyvinyl Chloride Iso-Phthalic Acid/Aluminium Nitrate Nanocomposite Membrane. <i>Macromolecular Research</i> , 2019, 27, 83-89.   | 2.4  | 57        |
| 9  | Technical characterization and economic evaluation of recovery of flare gas in various gas-processing plants. <i>Energy</i> , 2017, 124, 481-491.   | 8.8  | 54        |
| 10 | Mixed matrix membranes comprising PMP polymer with dispersed alumina nanoparticle fillers to separate CO <sub>2</sub> /N <sub>2</sub> . <i>Macromolecular Research</i> , 2016, 24, 782-792.   | 2.4  | 45        |
| 11 | Determining the optimum conditions for modified diesel fuel combustion considering its emission, properties and engine performance. <i>Energy Conversion and Management</i> , 2016, 113, 209-219.   | 9.2  | 44        |
| 12 | Synthesis and Modification of Zeolite ZSM-5 Catalyst with Solutions of Calcium Carbonate (CaCO <sub>3</sub> ) and Sodium Carbonate (Na <sub>2</sub> CO <sub>3</sub> ) for Methanol to Gasoline Conversion. <i>International Journal of Chemical Reactor Engineering</i> , 2018, 16, . | 1.1  | 41        |
| 13 | Investigating the effect of dianhydride type and pyrolysis condition on the gas separation performance of membranes derived from blended polyimides through statistical analysis. <i>Journal of Industrial and Engineering Chemistry</i> , 2014, 20, 1061-1070.                       | 5.8  | 40        |
| 14 | Improving the Properties and Engine Performance of Diesel/Methanol Nanoparticle Blend Fuels via Optimization of the Emissions and Engine Performance. <i>Energy &amp; Fuels</i> , 2016, 30, 8200-8208.  | 5.1  | 37        |
| 15 | Investigating the effect of Fe <sub>2</sub> O <sub>3</sub> and TiO <sub>2</sub> nanoparticle and engine variables on the gasoline engine performance through statistical analysis. <i>Fuel</i> , 2019, 254, 115618.   | 6.4  | 32        |
| 16 | The morphology and gas separation performance of membranes comprising multiwalled carbon nanotubes/polysulfone/Kapton. <i>Journal of Applied Polymer Science</i> , 2016, 133, .   | 2.6  | 30        |
| 17 | Improving the gasoline properties by blending butanol-Al <sub>2</sub> O <sub>3</sub> to optimize the engine performance and reduce air pollution. <i>Energy</i> , 2021, 218, 119442.  | 8.8  | 30        |
| 18 | Modeling and optimization of gas transport characteristics of carbon molecular sieve membranes through statistical analysis. <i>Polymer Engineering and Science</i> , 2014, 54, 147-157.  | 3.1  | 29        |

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|----|---|-----|-----------|
| 19 | Mathematical modeling and optimization of gas transport through carbon molecular sieve membrane and determining the model parameters using genetic algorithm. Iranian Polymer Journal (English) Tj ETQq1 1 0.784314 rgBT / Overlock   | 2.7 | 28        |
| 20 | The influence of nanoparticles on gas transport properties of mixed matrix membranes: An experimental investigation and modeling. Korean Journal of Chemical Engineering, 2017, 34, 829-843.  | 2.7 | 28        |
| 21 | Application of response surface methodology to optimize high active Cu-Zn-Al mixed metal oxide fabricated via microwave-assisted solution combustion method. Advanced Powder Technology, 2020, 31, 1470-1479.   | 4.1 | 28        |
| 22 | The influence of synthesis parameters on the gas selectivity and permeability of carbon membranes: empirical modeling and process optimization using surface methodology. RSC Advances, 2016, 6, 14149-14163.   | 3.6 | 27        |
| 23 | Effect of synthesizing conditions on the activity of zinc-copper aluminate nanocatalyst prepared by microwave combustion method used in the esterification reaction. Fuel, 2020, 263, 116422.   | 6.4 | 27        |
| 24 | Investigating the effect of MgO and CeO <sub>2</sub> metal nanoparticle on the gasoline fuel properties: empirical modeling and process optimization by surface methodology. Environmental Science and Pollution Research, 2018, 25, 22889-22902.   | 5.3 | 26        |
| 25 | Physicochemical Properties and Combustion Performance of Gas Oil Fuel Additives. Journal of Energy Resources Technology, Transactions of the ASME, 2012, 134, .   | 2.3 | 24        |
| 26 | Mathematical Modeling of Ethane Cracking Furnace of Olefin Plant with Coke Formation Approach. International Journal of Chemical Reactor Engineering, 2018, 16, .   | 1.1 | 24        |
| 27 | Performance analysis and development of a refrigeration cycle through various environmentally friendly refrigerants. Journal of Thermal Analysis and Calorimetry, 2019, 136, 1817-1830.   | 3.6 | 24        |
| 28 | Technological and economical analysis of flare recovery methods, and comparison of different steam and power generation systems. Journal of Thermal Analysis and Calorimetry, 2020, 139, 2399-2411.   | 3.6 | 24        |
| 29 | The assessment of honeycomb structure UiO-66 and amino functionalized UiO-66 metal-organic frameworks to modify the morphology and performance of Pebax® 1657-based gas separation membranes for CO <sub>2</sub> capture applications. Environmental Science and Pollution Research, 2020, 27, 40618-40632. | 5.3 | 23        |
| 30 | Technical and economic analysis of acrylonitrile production from polypropylene. Thermal Science and Engineering Progress, 2020, 16, 100463.   | 2.7 | 22        |
| 31 | Preparation of High-Performance Membranes Derived from Poly(4-methylpentene)/Zinc Oxide Particles. Chemical Engineering and Technology, 2017, 40, 1693-1701.  | 1.5 | 18        |
| 32 | Investigation on the Effect of Microalgae Chlorella sp. and Spirulina on Biodiesel Production. Petroleum Chemistry, 2018, 58, 702-708.  | 1.4 | 18        |
| 33 | Industrial optimization of multi-effect desalination equipment for olefin complex. Journal of Thermal Analysis and Calorimetry, 2020, 139, 237-249.   | 3.6 | 16        |
| 34 | Technical and Economic Analysis of Conventional and Supercritical Transesterification for Biofuel Production. Chemical Engineering and Technology, 2020, 43, 1922-1929.   | 1.5 | 16        |
| 35 | Analysis of Dynamics Targeting CNT-Based Drug Delivery through Lung Cancer Cells: Design, Simulation, and Computational Approach. Membranes, 2020, 10, 283.   | 3.0 | 15        |
| 36 | Technical, economic and thermodynamic analysis for loading, storing, unloading and transporting of Ethane fluid. Journal of the Taiwan Institute of Chemical Engineers, 2021, 120, 218-228.   | 5.3 | 15        |

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|----|--|-----|-----------|
| 37 | Break Even Point analysis of liquefied natural gas process and optimization of its refrigeration cycles with technical and economic considerations. <i>Energy</i> , 2021, 237, 121643.   | 8.8 | 13        |
| 38 | Conductive poly( $\epsilon$ -caprolactone)/polylactic acid scaffolds for tissue engineering applications: Synergy effect of zirconium nanoparticles and polypyrrole. <i>Polymers for Advanced Technologies</i> , 2022, 33, 1427-1441.  | 3.2 | 13        |
| 39 | Effect of operating pressure and pyrolysis conditions on the performance of carbon membranes for CO <sub>2</sub> /CH <sub>4</sub> and O <sub>2</sub> /N <sub>2</sub> separation derived from polybenzimidazole/Matrimid and UIP-S precursor blends. <i>Polymer Bulletin</i> , 2018, 75, 4341-4358. | 3.3 | 12        |
| 40 | Preparation and characterization of a novel MMMs by comprising of PSF/HNT/TiO <sub>2</sub> nanotubes to reduce organic sediments. <i>Polymer Bulletin</i> , 2018, 75, 2285-2299.   | 3.3 | 12        |
| 41 | Novel nanocomposite membranes-derived poly(4-methyl-1-pentene)/functionalized titanium dioxide to improve the gases transport properties and separation performance. <i>Polymer Bulletin</i> , 2020, 77, 6467-6489.  | 3.3 | 11        |
| 42 | Modelling and optimization of exhaust pollutants and the properties and characteristics of ethanol-diesel through a statistical approach. <i>Canadian Journal of Chemical Engineering</i> , 2017, 95, 1054-1062.   | 1.7 | 10        |
| 43 | Modelling and optimization of main independent parameters for biodiesel production over a $\text{Cu}_{0.4}\text{Zn}_{0.6}\text{Al}_2\text{O}_4$ catalyst using an RSM method. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 111-119.   | 3.2 | 10        |
| 44 | LPG-Fueled Vehicles: An Overview of Technology and Market Trend. <i>Automotive Experiences</i> , 2020, 3, 6-19.  | 0.9 | 8         |
| 45 | Experimental study, modeling and optimization to improve heat resistance of modified resole-pitch composites. <i>Iranian Polymer Journal (English Edition)</i> , 2015, 24, 829-836.  | 2.4 | 7         |
| 46 | Improvement in mechanical properties of polyurethane-urea nanocomposites by using modified SiO <sub>2</sub> nanoparticles. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46707.   | 2.6 | 7         |
| 47 | The technical and economic evaluation of biodiesel production processes from different vegetable oils. <i>Environmental Progress and Sustainable Energy</i> , 2020, 39, e13497.  | 2.3 | 7         |
| 48 | Better efficiency for the olefin plant demethanizer tower by replacing trays with packing. <i>International Journal of Chemical Reactor Engineering</i> , 2021, 19, 115-123.   | 1.1 | 7         |
| 49 | The technical and economic comparison of ethylene production from natural gas and ethane. <i>International Journal of Chemical Reactor Engineering</i> , 2021, 19, 415-425.  | 1.1 | 7         |
| 50 | Enhancing engine power and torque and reducing exhaust emissions of blended fuels derived from gasoline-propanol-nano particles. <i>Energy</i> , 2022, 241, 122924.  | 8.8 | 7         |
| 51 | Synthesis of a novel nano-ceramic membrane for hydrogen separation and purification. <i>Journal of the Australian Ceramic Society</i> , 2018, 54, 271-277.   | 1.9 | 6         |
| 52 | Technical and economic assessment of processes for the LNG production in cycles with expander and refrigeration. <i>Environment, Development and Sustainability</i> , 2022, 24, 13407-13425.   | 5.0 | 5         |
| 53 | Investigation of light aromatics removal from industrial wastewater using nano metal organic framework. <i>Journal of Contaminant Hydrology</i> , 2022, 249, 104048.   | 3.3 | 5         |
| 54 | Effect of Single- and Multiwall Carbon Nanotubes with Activated Carbon on Hydrogen Storage. <i>Chemical Engineering and Technology</i> , 2021, 44, 387-394.  | 1.5 | 4         |

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|----|--|-----|-----------|
| 55 | Evaluating the Optimal Capacity for the Implementation of Fluidized Catalytic Cracking in the Refinery by the Technical and Economic Analysis. <i>Petroleum Chemistry</i> , 2021, 61, 729-738.                   | 1.4 | 4         |
| 56 | Power generation using produced biodiesel from palm oil with GTG, STG and combined cycles; process simulation with economic consideration. <i>Fuel</i> , 2022, 314, 123084.                                      | 6.4 | 4         |
| 57 | A comparative technical and economic analysis of different processes for shale gas conversion to high value products. <i>Comptes Rendus Chimie</i> , 2020, 23, 299-314.  | 0.5 | 3         |
| 58 | Increasing the efficiency of liquefied natural gas production plant with considering appropriate refrigerant components. <i>Environmental Progress and Sustainable Energy</i> , 2022, 41, .                      | 2.3 | 3         |
| 59 | The Influence of Synthesis Parameters on Vertically Aligned CNT Sheets: Empirical Modeling and Process Optimization Using Response Surface Methodology. <i>Journal of Membrane Biology</i> , 2017, 250, 651-661. | 2.1 | 2         |
| 60 | The novel composite membranes containing chloride and acid functionalized multiwall carbon nanotube fillers for gas separation. <i>Colloid and Polymer Science</i> , 2021, 299, 1933-1944.                       | 2.1 | 1         |