

Arshad Hussain

Professor

School of Chemical & Materials Engineering

Email:

Contact:

LinkedIn:



About

Dr. Arshad Hussain is working as Professor in the School of Chemical & Materials Engineering. Dr. Arshad Hussain has a PhD in Membrane Technology. Dr. Arshad Hussain has published 94 research articles & conference papers having a citation count of 2629, carried out 3 projects and filed 0 intellectual property.

Qualifications

PhD in Membrane Technology	2002 - 2005
----------------------------	-------------

Experience

Professor School of Chemical & Materials Engineering	2020- Present
Professor School of Chemical & Materials Engineering	2015 - 2020
Associate Professor School of Chemical & Materials Engineering	2010 - 2015
Assistant Professor School of Chemical & Materials Engineering	2006 - 2010
Faculty NUST , H-12 Islamabad	2006- Present

Professional Memberships

PEC

Research Projects

National Projects	
Pilot sale study of biogas upgrading process using hybrid system based on water scrubbing and membrane technology Funding Agency: PSF Amount: PKR 17,496,000.00 Status: Approved_inprocess	2023
Plant-Wide Energy Analysis of Petroleum Refinery Process: An Integrated Framework of Energy Analysis, Uncertainty Analysis and Process Optimization Funding Agency: HEC Amount: PKR 3,790,000.00 Status: Completed	2019
Hydrophobic (Waterproof) Membrane Lining for Shoes Funding Agency: NUST Amount: PKR 300,000.00 Status: Completed	2018

International Projects

Research Articles

A comprehensive overview of dual-layer composite membrane for air (O2/N2) separation	2021
--	------

<i>Syed Shujaat Karim Sarah Farrukh Arshad Hussain Tayyaba Noor Mohammad Younas</i> <i>Polymers and Polymer Composites</i>, Volume 29, Issue 9, Pages S1630-S1640 Impact Factor: 3.171 Quartile: 2 Citations: 14 DOI: doi.org/10.1177/09673911211045852	
Mixed and single gas permeation performance analysis of amino-modified ZIF based mixed matrix membrane <i>Zarrar Salahuddin Sarah Farrukh Arshad Hussain Tayyaba Noor Witold Kwapinski</i> <i>Polymer and Polymer Composite</i>, Pages 1-12 Impact Factor: 1.841 Quartile: 3 Citations: 4 DOI: https://doi.org/10.1177/09673911211023303	2021
Thickness Effect on Permeance of CO₂/CH₄ Gases in CA Coated PVDF Composite Membranes <i>Ayesha Raza Muhammad Fahad Yousaf Sarah Farrukh Arshad Hussain</i> <i>Transactions of the Indian Ceramic Society</i>, Volume 80, Issue 2, Pages 89-95 Impact Factor: 2.355 Quartile: 2 Citations: 4 DOI: https://doi.org/10.1080/0371750X.2021.1880969	2021
Advanced multiple-layer composite CTA/CDA hollow fiber membranes for CO₂ separations <i>Ayesha Raza Muhammad Askari Can zeng liang Napeng Sarah Farrukh Arshad Hussain Pai-shung chung</i> <i>Journal of Membrane Science</i>, Volume 625, Article Number 119124 Impact Factor: 10.530 Quartile: 1 Citations: 17 DOI: 10.1016/j.memsci.2021.119124	2021
Investigation of cellulose acetate/gamma-cyclodextrin MOF based mixed matrix membranes for CO₂/CH₄ gas separation <i>Ovaïd Mehmood Sarah Farrukh Arshad Hussain Mohammad Younas Zarrar Salahuddin Erum Pervaiz Muhammad Ayoub</i> <i>Green House Gases - Science and Technology</i>, Volume 11, Issue 2, Pages 313-330 Impact Factor: 2.518 Quartile: 3 Citations: 28 DOI: 10.1002/ghg.2050	2021
Performance Analysis of Blended Membranes of Cellulose Acetate with Variable Degree of Acetylation for CO₂/CH₄ Separation <i>Sarrah Farrukh Mohd Hafiz Dzarfan Othman Arshad Hussain Imran Ullah Khan Mohd Hafiz Dzarfan Othman Ayesha Raza Mohd Hafiz Dzarfan Othman Muhammad Ahsan</i> <i>Membranes</i>, Volume 11, Issue 4, Article Number 245 Impact Factor: 4.562 Quartile: 1 Citations: 19 DOI: https://doi.org/10.3390/membranes11040245	2021
Blast and Fragmentation Studies of a Scaled Down Artillery Shell-Simulation and Experimental Approaches <i>Khurshid Ahmed Abdul Qadeer Malik Arshad Hussain Iram Raza Ahmad Iftikhar Hussain Gul</i> <i>International Journal of Multiphysics</i>, Volume 15(1), Pages 49-71 Impact Factor: N/A DOI: 10.21152/1750-9548.15.1.49	2021
Gas barrier properties evaluation for boron nitride nanosheets-polymer (polyethylene-terephthalate) composites <i>Atif Ayub Sarah Farrukh Rahim Jan Muhammad Azeem Zarrar Salahuddin Arshad Hussain</i> <i>Applied Nanoscience</i>, Vol:11, Pages:91-99 Impact Factor: 3.869 Quartile: 3 Citations: 10 DOI: 10.1007/s13204-020-01563-z	2021
Effects of Coagulation Residence Time on the Morphology and Properties of Poly (vinyl) Alcohol (PVA) Asymmetric Membrane via NIPS Method for O₂/N₂ Separation <i>Arshad Hussain Syed Shujaat Karim Sarah Farrukh Mohammad Younas</i> <i>Journal of Polymers and the Environment</i>, Volume 28, Pages 2810–2822 Impact Factor: 3.667 Quartile: 2 Citations: 9 DOI: https://doi.org/10.1007/s10924-020-01816-6	2020
Optimization analysis of polyurethane based mixed matrix gas separation membranes by incorporation of gamma-cyclodextrin metal organic frame work <i>Erum Pervaiz Sarah Farrukh Ovaïd Mehmood Arshad Hussain Ayesha Rehman Yangxian Liu Sajid Butt</i> <i>Chemical Papers</i>, Volume 74, Pages 3527–3543 Impact Factor: 2.097 Quartile: 3 Citations: 23	2020

DOI: <https://doi.org/10.1007/s11696-020-01179-1>

Carbon dioxide capture using liquid absorption methods: a review

2020

Friday O. Ochedi Jianglong Yu Hai Yu Yangxian Liu Arshad Hussain Friday O. Ochedi Jianglong Yu Hai Yu Yangxian Liu
Environmental Chemistry Letters, Pages

Impact Factor: 9.027 | **Quartile:** 1 | **Citations:** 318

DOI: <https://doi.org/10.1007/s10311-020-01093-8>

Lightweight Protective Configurations against Blast and Fragments Impact- Experimental and Numerical Studies

2020

Khurshid Ahmed Abdul Qadeer Malik Arshad Hussain Iftikhar Ahmad Iram Raza Ahmad
AIP Advances, Volume 10, Article Number 095221

Impact Factor: 1.548 | **Quartile:** 4 | **Citations:** 10

DOI: 10.1063/5.0022982

Computational Fluid Dynamics (CFD) Modeling and Simulation of Flow Regulatory Mechanism in Artificial Kidney Using Finite Element Method

2020

Tuba Yaqoob Muhammad Ahsan Arshad Hussain Iftikhar Ahmad
Membranes, Volume 10, Issue no. 7, Article 139

Impact Factor: 4.106 | **Quartile:** 1 | **Citations:** 11

DOI: 10.3390/membranes10070139

Enhancement in the selectivity of O₂/N₂ via ZIF-8/CA mixed-matrix membranes and the development of a thermodynamic model to predict the permeability of gases

2020

Tayyaba Noor Shakir Ul Azam Arshad Hussain Sarah Farrukh Yangxian Liu
Environmental Science and Pollution Research, Volume 27, Issue 17, Pages 24413-24429

Impact Factor: 4.223 | **Quartile:** 2 | **Citations:** 18

DOI: <https://doi.org/10.1007/s11356-020-08778-1>

Development of high performance amine functionalized zeolitic imidazolate framework (ZIF - 8)/cellulose triacetate mixed matrix membranes for CO₂ /CH₄ separation

2020

Dr. Tayyaba Noor Ayesha Raza Sarah Farrukh Arshad Hussain Imran Ullah Khan Mohd Hafiz Dzarfan Othman Muhammad Fahad Yousaf
International Journal of Energy Research, Pages 1–11

Impact Factor: 5.164 | **Quartile:** 1 | **Citations:** 32

DOI: <https://doi.org/10.1002/er.5448>

In-Vitro and In-Vivo Study of Superabsorbent PVA/Starch/g-C₃N₄/Ag@TiO₂ NPs Hydrogel Membranes for Wound Dressing

2020

Erum Pervaiz Arooj Ahmed Muhammad Bilal Khan Niazi Zaib Jahan Tahir Ahmad Arshad Hussain Hussnain Ahmed Janjua Zakir Hussain
European Polymer Journal, Volume 130, Article Number 109650

Impact Factor: 4.598 | **Quartile:** 1 | **Citations:** 101

DOI: DOI: 10.1016/j.eurpolymj.2020.109650

Synthesis and Catalytic Activity of IM-5 Zeolite as Naphtha Cracking Catalyst for Light Olefins: A Review

2020

Rabeeha Taj Erum Pervaiz Arshad Hussain
Journal of Chemical Society of Pakistan, Vol. 42, No. 02, Pages 305-316

Impact Factor: 0.536 | **Quartile:** 4

DOI: <https://www.jcsp.org.pk>

Synthesis and gas permeation analysis of TiO₂ nanotube-embedded cellulose acetate mixed matrix membranes

2020

M. Hamza Rashid Sarah Farrukh Sofia Javed Arshad Hussain X. Fan Sarim Ali Muhammad Ayoub
Chemical Papers, Volume 74, Pages 821-828

Impact Factor: 2.097 | **Quartile:** 3 | **Citations:** 10

DOI: 10.1007/s11696-019-00913-8

PVA/starch/propolis/anthocyanins rosemary extract composite films as active and intelligent food packaging materials

2020

Pakeeza Mustafa Tahir Ahmed Muhammad Bilal Khan Niazi Zaib Jahan Ghufrana Samin Arshad Hussain Salman Raza Naqvi
Journal of Food Safety, Volume 40, Issue 1, Article Number e12725

Impact Factor: 1.953 | **Quartile:** 3 | **Citations:** 102

DOI: doi.org/10.1111/jfs.12725

Enhancing the Thermal, Mechanical and Swelling Properties of PVA/Starch Nanocomposite Membranes Incorporating g-C3N4 <i>Erum Pervaiz Arooj Ahmed Muhammad Bilal Khan Niazi Zaib Jahan Ghufrana Samin Taqi Mehran Arshad Hussain</i> <i>Journal of Polymers and the Environment</i> , Volume 28, Pages 100-115 Impact Factor: 3.667 Quartile: 2 Citations: 62 DOI: https://doi.org/10.1007/s10924-019-01592-y	2020
A Review of Shaped Charge Variables for its Optimum Performance <i>Khalid Naeem Arshad Hussain Shakeel Abbas</i> <i>Engineering, Technology & Applied Science Research</i> , Volume: 9, Issue: 6, Pages: 4917-4924 Impact Factor: 0 DOI: NA	2019
Adsorption of CO2 on amine-functionalized green metal-organic framework: an interaction between amine and CO2 molecules <i>Erum Pervaiz Sarah Farrukh Ayesha Rehman Arshad Hussain Xianfeng Fan</i> <i>Environmental Science and Pollution Research</i> , Volume 26, Pages 36214-36225 Impact Factor: 3.056 Quartile: 2 Citations: 26 DOI: https://doi.org/10.1007/s11356-019-06717-3	2019
Study Analysis of Nano Particle based Fiber Reinforced Plastics (FRP) Composites <i>Fahad Usaman Sarah Farrukh Sarim Ali Arshad Hussain</i> <i>Journal of Polymer & Composites</i> , Volume 7, Issue 2, Pages 17-22 Impact Factor: 0 DOI: -	2019
Mechanical Characterization of Fiber Glass Composites with Nanosilica <i>Fahad Usman Sarrah Farrukh Syed Sarim Ali Arshad Hussain</i> <i>International Journal of Chemical Separation Technology</i> , Volume 5, Issue 1 Impact Factor: 0 DOI: -	2019
Optimisation of fuel in fire tube saturated steam boiler <i>Uzair Ibrahim Sarah Farrukh Arshad Hussain Muhammad Bilal Khan Niazi</i> <i>International Journal of Experimental Design and Process Optimisation</i> , Volume 6, Issue 2 Impact Factor: 0 DOI: 10.1504/IJEDPO.2019.101722	2019
Quantitative analysis of product quality of naphtha reforming process under uncertain process conditions <i>Gulsayyar Ali Arshad Chughtai Iftikhar Ahmad Arshad Hussain Manabu Kano Muhammad Bilal</i> <i>Chemical Engineering Communications</i> , Pages 1-12 Impact Factor: 1.802 Quartile: 3 Citations: 5 DOI: DOI:10.1080/00986445.2019.1641488	2019
A Computational Fluid Dynamics Approach for the Modeling of Gas Separation in Membrane Modules <i>Salman Qadir Arshad Hussain Muhammad Ahsan</i> <i>Processes</i> , Volume 7, Issue 7, Article Number 420 Impact Factor: 2.753 Quartile: 2 Citations: 25 DOI: 10.3390/pr7070420	2019
Effect Analysis of Nickel Ferrite (NiFe2O4) and Titanium Dioxide (TiO2) Nanoparticles on CH4/CO2 Gas Permeation Properties of Cellulose Acetate Based Mixed Matrix Membranes <i>Iqra Shakeel Arshad Husaain Sarah Farrukh</i> <i>Journal of Polymers and the Environment</i> , Volume 27, Issue 7, Pages 1449-1464 Impact Factor: 2.572 Quartile: 2 Citations: 32 DOI: 10.1007/s10924-019-01442-x	2019
Haemodialysis Membranes: A Review <i>Muhammad Awais Khan Arshad Hussain</i> <i>Journal of Membrane Science & Technology</i> , Vol. 9, Issue 2, Article Number 199 Impact Factor: - DOI: NA	2019
Pursuance of Piper Nigrum and Cinnamomum Verum on Poly vinyl Alcohol-Starch Hydrogel Membrane	2019

Fabrication of Cellulose acetate / Polyaziridine Blended Flat Sheet Membranes for Dialysis Application

2019

Hizba Waheed Arshad Hussain

BIONANOSCIENCE, Volume: 9 Issue: 2 Pages: 256-265 Published: JUN 2019 Document Type:Article

Impact Factor: 0 | Citations: 13

DOI: 10.1007/s12668-019-0600-5

A computational fluid dynamics (CFD) approach for the modeling of flux in a polymeric membrane using finite volume method

2019

Muhammad Ahsan Arshad Hussain

Mechanics and Industry, Volume: 18 Issue: 4

Impact Factor: 0.874 | Quartile: 4 | Citations: 6

DOI: 10.1051/meca/2017011

To Explore the Effect of Polyethylene Glycol Additive on Mechanical and Gas Permeation Properties of Polyvinyl Alcohol Membranes

2019

Arshad Hussain Muhammad Fahad Yousaf Sarah Farrukh

Journal of Polymer & Composites, Volume 7, Issue 1, Pages 27-33

Impact Factor: 0

DOI: -

Slow-release urea fertilizer from sulfur, gypsum, and starch-coated formulations

2019

Ayaz Mehmood Muhammad Bilal Khan Niazi Arshad Hussain Bilal Beig Zaib Jahan Nida Zafar Munir Zia

Journal of Plant Nutrition, Volume 42, Issue 10, Pages 1218-1229

Impact Factor: 1.132 | Quartile: 3 | Citations: 37

DOI: <https://doi.org/10.1080/01904167.2019.1609502>

Phosphorylated nanocellulose fibrils/PVA nanocomposite membranes for biogas upgrading at higher pressure

2019

Zaib Jahan Muhammad Bilal Khan Niazi May-Britt Hagg Øyvind Weiby Gregersen Arshad Hussain

Separation Science and Technology, -

Impact Factor: 1.718 | Quartile: 3 | Citations: 27

DOI: 10.1080/01496395.2019.1592192

Recent developments on gas-solid heterogeneous oxidation removal of elemental mercury from flue gas

2019

Wei Yang Yusuf G. Adewuyi Arshad Hussain Yangxian Liu Wei Yang Yusuf G. Adewuyi Yangxian Liu

Environmental Chemistry Letters, Volume 17, Issue 1, Pages 19-47

Impact Factor: 5.922 | Quartile: 1 | Citations: 65

DOI: DOI:10.1007/s10311-018-0771-2

Improving gas barrier properties with boron nitride nanosheets in polymer-composites

2019

Sarah Farrukh Muhammad Azeem Rahim Jan Arshad Hussain

Results in Physics, Volume 12, Pages 1535-1541

Impact Factor: 4.019 | Quartile: 1 | Citations: 29

DOI: 10.1016/j.rinp.2019.01.057

Effect of ultra-violet cross-linking on the properties of boric acid and glycerol co-plasticized thermoplastic starch films

2019

Bahram Khan Muhammad Bilal Khan Niazi Zaib Jahan Wasif Farooq Salman Raza Naqvi Majid Ali Israr Ahmed Arshad Hussain

Food Packaging and Shelf Life, Volume 19, Pages 184-192

Impact Factor: 4.244 | Quartile: 1 | Citations: 25

DOI: 10.1016/j.fpsl.2018.05.006

Electrochemical study of magnetic nanogel designed for controlled release of chlorhexidine gluconate

2019

Munezza A. Khan Muhammad Mujahid Iftikhar Hussain Gul Arshad Hussain

Journal of Electrochimica Acta, Volume: 295, Pages: 113-123

Impact Factor: 6.215 | Quartile: 1 | Citations: 10

DOI: 10.1016/j.electacta.2018.10.098

- Synergistic effect on co-pyrolysis of rice husk and sewage sludge by thermal behavior, kinetics, thermodynamic parameters and artificial neural network** 2019
- Salman Raza Naqvi Zeeshan Hameed Rumaisa Tariq Syed A. Taqvi Imtiaz Ali Muhammad Bilal Khan Niazi Tayyaba Noor Arshad Hussain Naseem Iqbal
Muhammad Shahbaz
Waste Management, NULL
- Impact Factor:** 5.448 | **Quartile:** 1 | **Citations:** 194
DOI: 10.1016/j.wasman.2018.12.031
- Effect of Polyvinyl Pyrrolidone on Morphology and Performance of Cellulose Acetate Based Dialysis Membrane** 2019
- Hizba Waheed Arshad Hussain
Engineering, Technology & Applied Science Research, Vol. 9, No. 1, Pages 3744-3749
- Impact Factor:** -
DOI: NA
- Development of a Matlab Code for Plane Wave Lens and its Validation by Autodyn-2D** 2018
- Khademi Naeem Arshad Hussain
Engineering, Technology & Applied Science Research, Vol 8, No 6, Pages 3614-3618
- Impact Factor:** -
DOI: NA
- Cellulose acetate/sericin blend membranes for use in dialysis** 2018
- Hizba Waheed Fozia T. Minhas Arshad Hussain
Polymer Bulletin, Volume: 75, Issue: 9, Pages 3935-3950
- Impact Factor:** 1.858 | **Quartile:** 2 | **Citations:** 17
DOI: DOI:10.1007/s00289-017-2238-1
- A review on modification methods of adsorbents for elemental mercury from flue gas** 2018
- Wen Xu Arshad Hussain Yangxian Liu
Chemical Engineering Journal, Volume 346, Pages 692-711
- Impact Factor:** 8.355 | **Quartile:** 1 | **Citations:** 179
DOI: <https://doi.org/10.1016/j.cej.2018.03.049>
- Optimization study of polyethylene glycol and solvent system for gas permeation membranes** 2018
- Sarah Farrukh Arshad Hussain Zarrar Salahuddin
International Journal of Polymer Analysis and Characterization, NULL
- Impact Factor:** 1.426 | **Quartile:** 3 | **Citations:** 13
DOI: <https://doi.org/10.1080/1023666X.2018.1485613>
- Numerical analysis of a gas separation of CH₄/CO₂ using hollow fiber membrane module** 2018
- Salman Qadir Muhammad Ahsan Arshad Hussain
Sigma Journal of Engineering and Natural Sciences, NULL
- Impact Factor:** 0
DOI: <http://eds.yildiz.edu.tr/AjaxTool/GetArticleByPublishedArticleId?PublishedArticleId=2623>
- Synthesis and Characterizations of Epoxy/Graphene Oxide/Carbon Fiber Nanocomposites** 2018
- Syed Sajid Ali Shah Haris Mustafa Habib Nasir Arshad Hussain
Journal of the Chemical Society of Pakistan, Volume 40, Issue 3, Pages 511-518
- Impact Factor:** 0.393 | **Quartile:** 4
DOI: [https://www.jcsp.org.pk/PublishedVersion/7ac6572a-8411-4296-966e-063829b95ab7Manuscript%20no%2012%20Final%20Gally%20Proof%20of%2011431%20\(Habib%20Nasir\).pdf](https://www.jcsp.org.pk/PublishedVersion/7ac6572a-8411-4296-966e-063829b95ab7Manuscript%20no%2012%20Final%20Gally%20Proof%20of%2011431%20(Habib%20Nasir).pdf)
- Removal of elemental mercury from flue gas using red mud impregnated by KBr and KI reagent** 2018
- Wei Yang Arshad Hussain Jun Zhang Yangxian Liu
Chemical Engineering Journal, Volume 341, Pages 483-494
- Impact Factor:** 8.355 | **Quartile:** 1 | **Citations:** 95
DOI: <https://doi.org/10.1016/j.cej.2018.02.023>
- Synthesis and characterization of zinc-coated urea fertilizer** 2018
- Muhammad Irfan Muhammad Bilal Khan Niazi Dr. Arshad Hussain Wasif Farooq
Journal of Plant Nutrition, NULL
- Impact Factor:** 0.753 | **Quartile:** 4 | **Citations:** 34
DOI: <https://www.tandfonline.com/doi/abs/10.1080/01904167.2018.1454957>

Computational Fluid Dynamics (CFD) Analysis of Phthalic Anhydride's Yield Using Lab Synthesized and Commercially Available (V2O5/TiO2) Catalyst <i>Ali Sarosh Arshad Hussain Erum Pervaiz Muhammad Ahsan</i> <i>Engineering Technology & Applied Science Research</i> , Volume 8, No. 2, Pages 2821-2826 Impact Factor: - DOI: https://etasr.com/index.php/ETASR/article/view/1954	2018
Preparation and characterization of PVA/nanocellulose/Ag nanocomposite films for antimicrobial food packaging <i>Tahir Ahmad Muhammad Salman Sarwar Muhammad Bilal Khan Niazi Zaib Jahan Arshad Hussain</i> <i>Carbohydrate Polymer</i> , Volume 184, Pages 453-464 Impact Factor: 6.044 Quartile: 1 Citations: 420 DOI: 10.1016/j.carbpol.2017.12.068	2018
Fabrication and characterization of cellulose acetate/hydroxyapatite composite membranes for the solute separations in Hemodialysis <i>Arshad Hussain Aneela Hayder Ahmad Nawaz Khan Hizba Waheed</i> <i>Polymer Bulletin</i> , Volume 75, Pages 1197–1210 Impact Factor: 1.858 Quartile: 2 Citations: 15 DOI: https://doi.org/10.1007/s00289-017-2084-1	2018
Numerical and experimental study of wave shaper effects on detonation wave front <i>Khalid Naeem Arshad Hussain</i> <i>Defence Technology</i> , Volume 14, Issue 1, Pages 45-50 Impact Factor: 1.261 Quartile: 3 Citations: 16 DOI: 10.1016/j.dt.2017.11.005	2018
Utilization of Carbon dioxide (CO2) for the Production of Ethanol <i>Hizba Waheed Arshad Hussain</i> <i>Journal of the Chemical Society of Pakistan</i> , Volume 39, Issue 6, Pages 896-902 Impact Factor: 0.280 Quartile: 4 DOI: -	2017
Carbon capture from natural gas using multi-walled CNTs based mixed matrix membranes <i>Sarah Farrukh Arshad Hussain Muhammad Ayoub Abid Hussain</i> <i>Environmental Technology</i> , NULL Impact Factor: 1.666 Quartile: 3 Citations: 23 DOI: https://doi.org/10.1080/09593330.2017.1408696	2017
Synthesis and Characterization of Commercial Grade Energetic Materials using Decanted 2,4,6 Tri-nitrotoluene (TNT) <i>Dr.Abdul Qadeer Malik Muhammad Farooq Ahmed Arshad Hussain</i> <i>Journal of the Chemical Society of Pakistan</i> , Volume 39, Issue 4, Pages 552-559 Impact Factor: 0.28 Quartile: 4 DOI: -	2017
Influence of Amphiphilic Plasticizer on Properties of Thermoplastic Starch Films <i>Israr Ahmed Muhammad Bilal Khan Niazi Arshad Hussain Zaib Jahan</i> <i>Polymer-Plastics Technology and Engineering</i> , NULL Impact Factor: 1.655 Quartile: 3 Citations: 12 DOI: http://dx.doi.org/10.1080/03602559.2017.1298803	2017
Synthesis, Characterization and NH3/N2 Gas Permeation Study of Nanocomposite Membranes <i>Ayesha Raza Sarah Farrukh Arshad Hussain</i> <i>Journal of Polymers and the Environment</i> , Volume 25, Issue 1, Pages 46-55 Impact Factor: 2.572 Quartile: 2 Citations: 18 DOI: 10.1007/s10924-016-0783-6	2017
Development of Anti-bacterial PVA/Starch Based Hydrogel Membrane for Wound Dressing <i>Awais Hassan Muhammad Bilal Khan Niazi Arshad Hussain Sarah Farrukh Tahir Ahmad</i> <i>Journal of Polymers and the Environment</i> , Pages 1-9 Impact Factor: 1.971 Quartile: 2 Citations: 122 DOI: doi:10.1007/s10924-017-0944-2	2017
Comparative CO2 Adsorption Analysis in Pure and Amine-Modified Composite Membranes	2017

Arshad Hussain Sarah Farrukh X. Fan POLYMER-PLASTICS TECHNOLOGY AND ENGINEERING, Volume: 56 Issue: 11 Pages: 1158-1166 Impact Factor: 1.655 Quartile: 3 Citations: 3 DOI: 10.1080/03602559.2016.1255753	
Computational Fluid Dynamics (CFD) Simulation and Comparison for Different Numbers of Baffles to Reduce Concentration Polarization Effects in Membrane Tubes Muhammad Ahsan Arshad Hussain Journal of Engineering and Technological Sciences, Volume 49, Issue 1, Pages 114-131 Impact Factor: 0 Citations: 5 DOI: 10.5614/j.eng.technol.sci.2017.49.1.7	2017
Development Of User-defined Extension For The Simulation Of Membrane Process In Aspen Hysys Muhammad Ahsan Olivia Meyonette Sweeney Arshad Hussain Sigma Journal of Engineering and Natural Sciences-Sigma Muhendislik Ve Fen Bilimleri Dergisi, Volume 35, Issue 1, Pages 35-45 Impact Factor: 0	2017
Computational Fluid Dynamics (CFD) Modeling of Heat Transfer in a Polymeric-Membrane using Finite Volume Method Muhammad Ahsan Arshad Hussain Journal of Thermal Science, Volume 25, Issue 6, Pages 564-570 Impact Factor: 0.678 Quartile: 4 Citations: 11 DOI: 10.1007/s11630-016-0899-y	2016
Fabrication, characterization and permeation study of ultrafiltration dialysis membranes Sarah Farrukh Hizba Waheed Arshad Hussain Desalination and Water Treatment, Volume: 57, Issue: 52, Pages: 24799-24806 Impact Factor: 1.631 Quartile: 2 Citations: 7 DOI: 10.1080/19443994.2016.1149108	2016
Effect of Thermal Treatment on Production of Graphene from Graphite via Exfoliation in Organic Solvent (Acetonitrile) Khalid Nawaz Muhammad Ayub Arshad Hussain Abdul Qadeer Malik Muhammad Bilal Khan Muzammil Hussain Asad Ullah Khan Noaman Ul-Haq Muhammad Bilal Khan Niazi Journal of the Chemical Society of Pakistan, Volume 38, Issue 5, Pages 822-827 Impact Factor: 0.327 Quartile: 4 DOI: -	2016
Thermal and morphological analysis of TNT and RDX recovered from unserviceable composition B explosive for re-utilization Muhammad Farooq Ahmed Arshad Hussain Dr.Abdul Qadeer Malik Journal of the Chemical Society of Pakistan, Volume: 38 Issue: 4 Pages: 623-630 Impact Factor: 0.327 Quartile: 4 DOI: -	2016
Mathematical modelling of membrane gas separation using the finite difference method Muhammad Ahsan Arshad Hussain Pacific Science Review A: Natural science and engineering, Pacific Science Review A: Natural science and engineering, Volume 18, Issue 1, Pages 47–52, January 2016 Impact Factor: 0 DOI: http://dx.doi.org/10.1016/j.psra.2016.07.001	2016
Synthesis and characterization of polymer membranes for hemodialysis Zaib Jahan Arshad Hussain Journal of Porous Media, Volume 19, Issue 6, Pages 557-565 Impact Factor: 1.144 Quartile: 3 Citations: 1 DOI: DOI:10.1615/JPorMedia.v19.i6.60	2016
Two-Stage Membrane System for Post-combustion CO2 Capture Application Arshad Hussain Sarah Farrukh Fozia T. Minhas Energy and Fuels, Volume 29, Issue 10, Pages 6664-6669 Impact Factor: 2.835 Quartile: 1 Citations: 48 DOI: 10.1021/acs.energyfuels.5b01464	2015
CO2 adsorption using TiO2 composite polymeric membranes: A kinetic study	2015

Sarah Hafeez X. Fan Arshad Hussain C.F. Martín

Journal of Environmental Sciences, ISSN:1001-0742, Volume 35, Pages 163-171, 1 September 2015, Volume: 35 Pages: 163-171

Impact Factor: 2.208 | **Quartile:** 2 | **Citations:** 22

DOI: 10.1016/j.jes.2015.04.019

Mathematical modeling of helium recovery from a multicomponent fuel gas with polymeric membrane

2015

Muhammad Ahsan Arshad Hussain

International Journal of Chemical Engineering and Applications, Volume 6, No 3, Pages 173-178

Impact Factor: 0

DOI: 10.7763/IJCEA.2015.V6.476

Comparison of silica and novel functionalized silica-based cellulose acetate hybrid membranes in gas permeation study

2015

Fozia T. Minhas Sarah Farrukh Arshad Hussain Muhammad Mujahid

JOURNAL OF POLYMER RESEARCH, Volume: 22 Issue: 4 Article Number: 63

Impact Factor: 1.969 | **Quartile:** 2 | **Citations:** 21

DOI: 10.1007/s10965-015-0701-y

Fabrication, characterisation and CO₂/N₂ gas permeance study of novel blended membrane

2015

Sarah Farrukh Fozia T. Minhas Arshad Hussain Muhammad Mujahid

International Journal of Global Warming, Volume 7, Issue 4, Pages 532-547

Impact Factor: 1.286 | **Quartile:** 3 | **Citations:** 1

DOI: 10.1504/IJGW.2015.070049

Blending of TiO₂ nanoparticles with cellulose acetate polymer: to study the effect on morphology and gas permeation of blended membranes

2014

Sarah Farrukh Sofia Javed Arshad Hussain Muhammad Mujahid

Asia-Pacific Journal of Chemical Engineering, Volume: 9 Issue: 4 Pages: 543-551

Impact Factor: 0.789 | **Quartile:** 3 | **Citations:** 24

DOI: 10.1002/apj.1783

Process Design Analyses of CO₂ Capture from Natural Gas by Polymer Membrane

2014

Arshad Hussain Habib Nasir Muhammad Ahsan

Journal of the Chemical Society of Pakistan, Volume 36, Issue 3, Pages 411-421

Impact Factor: 0.345 | **Quartile:** 4

Fabrication and characterization of microfiltration blended membranes

2014

Sarah Farrukh Arshad Hussain Nadeem Iqbal

Desalination and Water Treatment, Volume 52, Issue 10-12, Pages 1833-1840

Impact Factor: 1.173 | **Quartile:** 3 | **Citations:** 14

DOI: 10.1080/19443994.2013.792013

Comparing Numerical Methods for Multicomponent Gas Separation by Single Permeation Unit

2014

Muhammad Ahsan Arshad Hussain

Chiang Mai Journal of Science, Volume 41, Issue 1, Pages 184-199

Impact Factor: 0.371 | **Quartile:** 3

An Alternate Mathematical Approach to Recover Hydrogen with High Permeate Purity from Gas Streams of Small-Medium Level Oil Refineries

2013

Muhammad Ahsan Arshad Hussain

Journal of the Chemical Society of Pakistan, Volume 35, Issue 3, Pages 621-628

Impact Factor: 0.612 | **Quartile:** 4

DOI: <https://www.jcsp.org.pk/ViewByVolume.aspx?v=192&i=VOLUME%2035,%20NO3,%20JUN%202013>

A comparison of numerical methods used to solve cross flow model for multicomponent membrane gas separation

2013

Muhammad Ahsan Arshad Hussain

World Applied Sciences Journal, Volume 22, Issue 5, Pages 703-711

Impact Factor: 0 | **Citations:** 3

DOI: 10.5829/idosi.wasj.2013.22.05.2202

An Efficient Numerical Approach for the Separation of Gases Using Membrane in a Multicomponent Gas Mixture

2012

Muhammad Ahsan Arshad Hussain

International Journal of Chemical Engineering and Applications, Vol. 3, No. 6, Pages 430-433

Impact Factor: 0
DOI: -

A Single Stage Membrane Process for CO₂ Capture from Flue Gas by a Facilitated Transport Membrane 2012
Arshad Hussain
Separation Science and Technology, Volume 47, Pages 1857-1865
Impact Factor: 1.164 | Quartile: 2 | Citations: 22
DOI: <https://doi.org/10.1080/01496395.2012.661013>

Liner Material's Output Characteristics of Explosively Formed Projectiles (EFPs) 2012
G. Hussain A. Hameed P.Barton Muhammad Bilal Khan Niazi Arshad Hussain Dr.Abdul Qadeer Malik
Key Engineering Materials, Volumes 510-511, Pages 148-155
Impact Factor: 0 | Citations: 6
DOI: <https://doi.org/10.4028/www.scientific.net/KEM.510-511.148>

Conference Proceedings

An alternate approach for the numerical modeling of isothermal flash calculation using Peng-Robinson equation of state 2018
Bilal Hussain Muhammad Ahsan Arshad Hussain
International Conference on Industrial Engineering & Operations Management Pretoria / Johannesburg, South Africa, res.country(247,)
Citations: N/A
DOI: N/A

Fabrication and Analysis of HNBR-Silica / Carbon Phenolic Ablative Composites as an Effective Thermal Protection System (TPS) 2018
Dr. Sarah Farrukh N A Tahir Dr. Arshad Hussain M Ayoub M Rafiq M H Khan
5th International Conference on Process Engineering & Advanced Materials 2018 (ICPEAM2018), res.country(157,)
Citations: N/A
DOI: 10.1088/1757-899X/458/1/012015

Virtual sensing of catalytic naphtha reforming process under uncertain feed conditions 2018
Dr. Iftikhar Ahmad Muhammad Bilal Gul Sayyar Ali Dr. Arshad Hussain
2018 International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), res.country(177,)
Citations: 4
DOI: 10.1109/ICOMET.2018.8346447

Catalytic Pyrolysis Of Botryococcus Braunii (microalgae) Over Layered and Delaminated Zeolites For Aromatic Hydrocarbon Production 2017
Salman Raza Naqvi M. Naqvib Tayyaba Noor Arshad Hussain Naseem Iqbal yoshimitsu uemura N. Nishiyama
9th International Conference on Applied Energy, ICAE2017, 21-24 August 2017, Cardiff, UK, res.country(231,)
Citations: N/A
DOI: 10.1016/j.egypro.2017.12.060

Thermal Decomposition and Kinetic Evaluation of Decanted 2,4,6 Trinitrotoluene for Reutilization as Composite Material 2015
Dr.Abdul Qadeer Malik Muhammad Farooq Ahmad Arshad Hussain
14th International Symposium on Advanced Materials, res.country(177,)
Citations: N/A
DOI: 10.1088/1757-899X/146/1/012032

Pursuance of functionalized TiO₂ nano particles on morphology and gas permeation of cellulose acetate membrane 2013
Arshad Hussain Sarah Farrukh M.Mujahid
44th World Chemistry Congress (IUPAC 2013), res.country(224,)
Citations: N/A
DOI: N/A

Books

Nanotechnology and the Generation of Sustainable Hydrogen

2021

Sarah Farrukh Xianfeng Fan Kiran Mustafa Arshad Hussain Muhammad Ayoub Mohammad Younas

1st Edition, Pages 1-109

Citations: N/A

DOI: 10.1007/978-3-030-60402-8

Book Chapters

Synthesis and Applications of Carbohydrate-Based Hydrogels

2018

Sarah Farrukh Kiran Mustafa Arshad Hussain Muhammad Ayoub

In: *springer*, NULL

Citations: N/A

DOI: 10.1007/978-3-319-76573-0_49-1