

Muhammad Bilal Khan Niazi

Professor

School of Chemical & Materials Engineering

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About

Dr. Muhammad Bilal Khan Niazi is working as Professor in the School of Chemical & Materials Engineering. Dr. Muhammad Bilal Khan Niazi has a PhD in Product Technology. Dr. Muhammad Bilal Khan Niazi has published 148 research articles & conference papers having a citation count of 5869, carried out 14 projects and filed 3 intellectual property.

Qualifications

PhD in Product Technology University of Groningen , Netherlands	2009 - 2013
MS in Chemical Engineering University of Groningen , Netherlands	2007 - 2009
BS in Chemical Engineering UET Lahore , Pakistan	2003 - 2007

Experience

Professor School of Chemical & Materials Engineering	2024- Present
Professor School of Chemical & Materials Engineering	2024 - 2024
Professor School of Chemical & Materials Engineering	2023 - 2024
Associate Professor School of Chemical & Materials Engineering	2018 - 2023
Assistant Professor School of Chemical & Materials Engineering	2013 - 2018
Post Doc. NTNU , Høgskoleringen 1, 7491 Trondheim, Norway	2017 - 2017
Post Doc NTNU , Høgskoleringen 1, 7491 Trondheim, Norway	2016 - 2017
PhD Scholar University of Groningen, The Netherlands , University of Groningen, The Netherlands	2009 - 2013
Internship AVEBE Commerce Innovation Centre Industrial Foxhol, The Netherlands , AVEBE Commerce Innovation Centre Industrial Foxhol, The Netherlands	2009 - 2009
Research Scholar University of Groningen, Tne Netherlands , University of Groningen, Tne Netherlands	2007 - 2009

Awards

Got "first prize for oral talk" in 8th international Conference on Polysaccharides-Glycoscience held in Prague, Czech Republic on 28-30th of November 2012.	2012
Polysaccharides Graphical abstract of my first publication was selected as cover photo of the international journal "Journal of applied polymer science" Special Issue: Polysaccharides 25 October 2012, Volume 126, Issue S1	2012

Professional Memberships

PEC

Since 2007

Research Projects

National Projects

4th ASEAN-Pakistan Conference on Materials Science (APCoMS 2025) Funding Agency: ASEAN Pakistan Collaboration Fund Amount: PKR 24,780,568.00 Status: Approved_inprocess	2025
Technology Development for Local Fabrication of Effective Hemodialysis Membranes Funding Agency: Higher Education Commission of Pakistan Amount: PKR 12,051,000.00 Status: Approved_inprocess	2025
Mobility Project under Erasmus+ KA171 with Bursa Technical University Funding Agency: Erasmus Amount: PKR N/A Status: Approved_inprocess	2025
Sact of Household allular Vesicle (ECV)-Loaded Scaffold for Skin Repair Funding Agency: NUST Amount: PKR 1,000,000.00 Status: Approved_inprocess	2024
Design and printing of self healing flexible perovskite solar cell devices Funding Agency: Pakistan Science Foundation Amount: PKR 9,065,000.00 Status: Approved_inprocess	2024
Algorithm Development & Improved RF Front end for Global Navigation Satellite System’s (GNSS) Signals Augmentation Funding Agency: M/s TRAMIC, PAK Amount: PKR 44,227,000.00 Status: Approved_inprocess	2023
Binding and Fate of Micronutrients Blends to Urea and DAP Fertilizers for Value Addition Funding Agency: Pakistan Agricultural Research Council (PARC) ALP Sectt Amount: PKR 4,457,400.00 Status: Completed	2021
Indigenous Development of Novel, Slow Release Urea Fertilizer Funding Agency: HEC Amount: PKR 7,613,900.00 Status: Completed	2015
Mobility for learners and staff - higher education student and staff mobility Funding Agency: European Union Amount: PKR 8,883,000.00 Status: Completed	2020
Development of Value-added zincated urea with slow release nitrogen feature Funding Agency: PSF Amount: PKR 6,840,000.00 Status: Completed	2020
Development of Zincated Urea Funding Agency: Industry Amount: PKR 1,380,000.00 Status: Approved_inprocess	2019
Development of Nano-composite membranes based on PVA (Polyvinyl Alcohol) and functionalized Nano-cellulose for Biogas upgrading Funding Agency: HEC Amount: PKR 456,526.00 Status: Completed	2019

International Projects	
Erasmus+ Programme - Mobility for learners and staff- Higher Education student and staff mobility	2024
Funding Agency: International	
Amount: PKR 4,000,000.00	
Status: Approved_inprocess	
Mobility for learners and staff - higher education student and staff mobility	2020
Funding Agency: International	
Amount: PKR 8,883,000.00	
Status: Approved_inprocess	

Research Articles

Nature-inspired designing of KLR- and KLS-rich antimicrobial peptides: unleashing the antibiofilm potential of RbP12 against MDR S. aureus and P. aeruginosa		2025
<i>Zeeshan Yaseen Saiqa Aslam Sidra Rahmat Ullah Abdur Rahman Muhammad Bilal Khan Niazi Saadia Andleeb</i>		
<i>Journal of Antimicrobial Chemotherapy</i> , Volume:80, Issue:5, Page:1331-1341		
Impact Factor: 3.600 Quartile: 2		
DOI: https://doi.org/10.1093/jac/dkaf079		
Study of shape of zinc oxide nanoparticles on the in-vitro and in-vivo performance of polymeric hydrogels for wound dressing		2025
<i>Hizbullah Malik Fatima Amir Zaib Jahan Usman Liaqat Saadia Andleeb Sulalit Bandyopadhyay Muhammad Bilal Khan Niazi</i>		
<i>International Journal of Pharmaceutics</i> , Volume:674, Article Number 125482		
Impact Factor: 5.200 Quartile: 1 Citations: 1		
DOI: https://doi.org/10.1016/j.ijpharm.2025.125482		
Development and Evaluation of User-Friendly Modeled Approach for Sustainable Polymer Membranes for Advanced Hemodialysis		2025
<i>Ahmed Khan Zaib Jahan Muhammad Ahsan Muhammad Bilal Khan Niazi Muhammad Nouman Aslam Khan Ahmed Sayed M. Metwally Farooq Sher</i>		
<i>Advanced Materials Interfaces</i> , Volume:12, Issue:1, Article Number 2400435		
Impact Factor: 4.300 Quartile: 2		
DOI: https://doi.org/10.1002/admi.202400435		
Synergistic electrochemical performance of textile sludge based activated carbon with reduced graphene oxide as electrode for supercapacitor application		2025
<i>Naveed Ahmed Khan Zaib Jahan Naseem Iqbal Muhammad Bilal Khan Niazi Rimsha Mehek</i>		
<i>Waste Management</i> , Volume:191, Page:274-283		
Impact Factor: 7.1 Quartile: 1 Citations: 6		
DOI: https://doi.org/10.1016/j.wasman.2024.11.015		
Improvement of functional properties of Chlorella-inulin conjugates via Maillard reaction		2024
<i>Rabaila Riaz Muhammad Bilal Khan Niazi Hussnain Ahmed Janjua Ozan Tas Mecit Halil Oztop</i>		
<i>International Journal of Food Science and Technology</i> , Volume 59, Issue 12, Pages 8983-8997		
Impact Factor: 2.600 Quartile: 2 Citations: 1		
DOI: 10.1111/ijfs.17371		
A novel computational methodology to design solar radiation absorbing glass		2024
<i>Faraan Fareed Uzma Habib Hafiz Ali Haider Sehole Salma Sherbaz Muhammad Bilal Khan Niazi Adnan Maqsood</i>		
<i>Energy and Buildings</i> , Volume:317, Article Number:114358		
Impact Factor: 6.6 Quartile: 1		
DOI: 10.1016/j.enbuild.2024.114358		
Biodegradable maleic–itaconic polymer-coated phosphatic fertilizer improved phosphorous recovery in calcareous soil		2024
<i>Mairaj Khalid Muhammad Bilal Khan Niazi Ghulam Haider Zaib Jahan Munir Zia Rafiq Ahmad Asim Hayat Tariq Shah</i>		
<i>Journal of Plant Nutrition and Soil Science</i> , Volume 187, Issue 3, Pages 415-425		
Impact Factor: 2.600 Quartile: 1		
DOI: https://doi.org/10.1002/jpln.202300197		
Synthesis of AgO/CuO/PVA/starch hydrogel by casting method and characterizations to safely overcome skin infections: A possible application in wound healing as a dressing		2024
<i>Uzma Uzair Nadia Syed Amna Kanwal Ghufrana Samin Muhammad Bilal Khan Niazi Sehrish Abbas Aminah S. Alotaibi Hannah Ghabban Aishah E. Albalawi</i>		
<i>Noorah Alsowayeh Fehmida Fasim Farid Menaa</i>		
<i>Materials Today Communications</i> , Volume 39, Article Number 109286		

Impact Factor: 3.700 Quartile: 2 Citations: 7 DOI: https://doi.org/10.1016/j.mtcomm.2024.109286	
Development and characterization of SA/PEG hydrogel membranes with Ag/ZnO nanoparticles for enhanced wound dressing <i>Sohail Zafar Gill Muhammad Bilal Khan Niazi Umar Shahzad Malik Zaib Jahan Saadia Andleeb Tahir Ahmed</i> <i>Materials Chemistry and Physics</i> , Volume 317, Article Number 129170 Impact Factor: 4.300 Quartile: 2 Citations: 10 DOI: https://doi.org/10.1016/j.matchemphys.2024.129170	2024
Chitosan encapsulation of fluconazole-loaded MgO/CuO nanocomposite for biofilm inhibition of contact lens <i>Sehrish Abbas Bushra Uzair Abida Raza Shumaila Sajjad Muhammad Bilal Khan Niazi</i> <i>Materials Chemistry and Physics</i> , Volume 317, Article Number: 129164 Impact Factor: 4.6 Quartile: 2 Citations: 4 DOI: 10.1016/j.matchemphys.2024.129164	2024
CFD analysis of iodine mass transfer coupled with a chemical reaction in a filtered containment venting system <i>Muhammad Shummas Humayun Majid Ali Muhammad Uzair Qureshi Muhammad Bilal Khan Niazi Yan Changqi Sun Zongning Gu Hai Feng Yanmin Zhou</i> <i>Progress in Nuclear Energy</i> , Volume 168, Article Number 105012 Impact Factor: 2.7 Quartile: 1 Citations: 1 DOI: doi.org/10.1016/j.pnucene.2023.105012	2024
A multifunctional vanillin-infused chitosan-PVA hydrogel reinforced by nanocellulose and CuO-Ag nanoparticles as antibacterial wound dressing <i>Fatima Amir Dr Bilal Khan Niazi Umer shahzad Malik Zaib Jahan Saadia Andleeb Tahir Ahmed Zartasha Mustansar</i> <i>International Journal of Biological Macromolecules</i> , Volume:258, Article Number: 128831 Impact Factor: 8.2 Quartile: 1 Citations: 22 DOI: 10.1016/j.ijbiomac.2023.128831	2024
Straw incorporation into microplastic-contaminated soil can reduce greenhouse gas emissions by enhancing soil enzyme activities and microbial community structure <i>Tariq Shah Zeeshan Khan Muhammad Asad Ayesha Imran Muhammad Bilal Khan Niazi Raf Dewil Ajaz Ahmad Pervaiz Ahmad</i> <i>Journal of Environmental Management</i> , Volume 351, Article Number 119616 Impact Factor: 8.7 Quartile: 1 Citations: 16 DOI: https://doi.org/10.1016/j.jenvman.2023.119616	2024
Zinc-Coated Urea with Gelatin-Enhanced Zinc Biofortification, Apparent Nitrogen Recovery, and Ryegrass Production <i>Bilal Abdullah Muhammad Bilal Khan Niazi Zaib Jahan Tariq Shah Umar Shahzad Malik Bilal Beig Abid Mahmood Ghulam Abbas Shah Zahid Iqbal</i> <i>Journal of Soil Science and Plant Nutrition</i> , Pages: 14 Impact Factor: 3.9 Quartile: 1 DOI: 10.1007/s42729-024-01649-5	2024
Development and testing of environment friendly nanohybrid coatings for sustainable agriculture technologies <i>Bilal Beig Muhammad Bilal Khan Niazi Farooq Sher Zaib Jahan Munir Zia Ghulam Abbas Shah Ayman A Ghfar Zahid Iqbal</i> <i>Environmental Research</i> , Volume 240, Article Number 117546 Impact Factor: 8.3 Quartile: 1 Citations: 11 DOI: https://doi.org/10.1016/j.envres.2023.117546	2024
Graphene-grafted bimetallic MOF membranes for hazardous & toxic contaminants treatment <i>Muhammad Bilal Khan Niazi Ayesha Rehman Zaib Jahan Tayyaba Noor Farhan Javed Sarah I Othman Mostafa R. Abukhadra Alam Nawaz</i> <i>Chemosphere</i> , Volume 340, Article Number 139721 Impact Factor: 8.8 Quartile: 1 Citations: 6 DOI: https://doi.org/10.1016/j.chemosphere.2023.139721	2023
Development of ZnO-GO-NiO membrane for removal of lead and cadmium heavy metal ions from wastewater <i>Arslan Maqbool Ameen Shahid Zaib Jahan Muhammad Bilal Khan Niazi Muhammad Ali Inam Ahmad M. Taefeeq Emadeldin M Kamel Muhammad Saeed Akhtar</i> <i>Chemosphere</i> , Volume 338, Article Number 139622 Impact Factor: 8.8 Quartile: 1 Citations: 18 DOI: https://doi.org/10.1016/j.chemosphere.2023.139622	2023

- Efficient removal of hexavalent chromium Cr (VI) using magnesium-iron layered double hydroxide supported on orange peel (Mg-Fe LDH@OPP): A synthetic experimental and mechanism studies** 2023
Waleed Usmani Muhammad Ali Inam Rashid Iftikhar Iqra Irfan Rabia Adnan Muhammad Bilal Khan Niazi Rizwan Khan Muhammad Hassan
Journal of Water Process Engineering, Volume 55, Article Number: 104233
Impact Factor: 7 | Quartile: 1 | Citations: 14
DOI: 10.1016/j.jwpe.2023.104233
- Mechanical milling processed highly luminescent Cs-Pb-Br perovskite emitters** 2023
Teng Zhang Youru Bai Shaohuan Feng Qifan Xue Xiaotian Hu Xueqing Xu Heyuan Liu Yuriy N Luponosov Muhammad Bilal Khan Niazi Xiyu Li
Chemical Communications, Volume 59, Issue 79, Pages 11827-11830
Impact Factor: 4.9 | Quartile: 2 | Citations: 2
DOI: <https://doi.org/10.1039/D3CC01345F>
- Effect of zinc oxide and zinc oxide nanoparticles coating on urea diffusion and its release kinetics for design and development of slow-release fertilizer: an experimental and numerical investigation** 2023
Bilal Beig Muhammad Bilal Khan Niazi Baseer Ullah Ahmed Nadeem Gondal Zaib Jahan Munir Zia Nouman Ahmad
Journal of Coatings Technology and Research, Pages 1-15
Impact Factor: 2.3 | Quartile: 3 | Citations: 10
DOI: <https://doi.org/10.1007/s11998-023-00810-6>
- Wood as a green and sustainable alternative for environmentally friendly & flexible electronic devices** 2023
Nouman Ahmed Hizbullah Malik Muhammad Bilal Khan Niazi Waheed Miran Ahmed M. Tawfeek Zaib Jahan Emadeldin M. Kamel Muhammad Saeed Akhtar
Chemosphere, Volume 336, Article Number 139213
Impact Factor: 8.8 | Quartile: 1 | Citations: 10
DOI: 10.1016/j.chemosphere.2023.139213
- Alleviation of cadmium toxicity in wheat by strigolactone: Regulating cadmium uptake, nitric oxide signaling, and genes encoding antioxidant defense system** 2023
Tariq Shah Zeeshan Khan Muhammad Asad Ayesha Imran Muhammad Bilal Khan Niazi Abdulaziz Abdullah Alsahli
Plant Physiology and Biochemistry, Volume 202, Article Number 107916
Impact Factor: 6.5 | Quartile: 1 | Citations: 21
DOI: <https://doi.org/10.1016/j.plaphy.2023.107916>
- Biodegradable Polymer Encapsulated Nickel Nanoparticles for Slow Release Urea Promotes Rhode Grass Yield and Nitrogen Recovery** 2023
Bilal Beig Muhammad Bilal Khan Niazi Zaib Jahan Ghulam Abbas Shah Zahid Iqbal
Journal of Polymers and the Environment, Volume 31, Pages 1866-1883
Impact Factor: 5.3 | Quartile: 1 | Citations: 17
DOI: 10.1007/s10924-022-02729-2
- Vanillin cross-linked hydrogel membranes interfacial reinforced by carbon nitride nanosheets for enhanced antibacterial activity and mechanical properties** 2023
Umer Shahzad malik Qixiang Duan Muhammad Bilal Khan Niazi Zaib Jahan Usman Liaqat Farqooq Sher Yanchang Gan Honghao Hou
Chinese Chemical Letters, Volume 34, Issue 4, ID:108071
Impact Factor: 8.455 | Quartile: 1 | Citations: 24
DOI: <https://doi.org/10.1016/j.ccllet.2022.108071>
- A Comparative Study of Gelatin/HPMC/HA and Gel/HPMC/TCP Nanocomposites for Bone Tissue Regeneration** 2023
Muhammad Bilal Sadaf Batool Zakir Hussain Muhammad Bilal Khan Niazi Usman Liaqat
Journal of Polymers and the Environment, Pages 1-12
Impact Factor: 4.705 | Quartile: 1 | Citations: 4
DOI: <https://doi.org/10.1007/s10924-023-02823-z>
- Development and testing of zinc sulfate and zinc oxide nanoparticle coatings over urea fertilizer to improve N and Zn use efficiency** 2023
Bilal Beig Muhammad Bilal Khan Niazi Zaib Jahan Ghulam Haider Munir Zia Ghulam Abbas Shah Zahid Iqbal Asim Hayat
Frontiers in Plant Science, Volume 13, Article Number 1058219
Impact Factor: 6.627 | Quartile: 1 | Citations: 26
DOI: 10.3389/fpls.2022.1058219
- Photocatalysis and adsorption kinetics of azo dyes by nanoparticles of nickel oxide and copper oxide and their nanocomposite in an aqueous medium** 2022
Muhammad Bilal Khan Niazi Hajra Ahsan Muhammad Shahid Muhammad Imran Faisal Mahmood Muhammad Hussnain Siddique Hayssam M. Ali Sabir
Hussain Muhammad Shahbaz Mudassar Ayyub Tanvir Shahzad

PeerJ, Volume:10, Article ID:e14358

Impact Factor: 2.7 | **Quartile:** 2 | **Citations:** 22

DOI: 10.7717/peerj.14358

Polyvinyl alcohol and aminated cellulose nanocrystal membranes with improved interfacial compatibility for environmental applications

2022

Saleem Ahmad Zaib Jahan Muhammad Bilal Khan Niazi Tayyaba Noor Ofaira Azhar Farooq Sher Honghao Hou Emina Karahmet Shere Environmental Research, Volume 214, Part 1, Article Number 113793

Impact Factor: 8.431 | **Quartile:** 1 | **Citations:** 44

DOI: <https://doi.org/10.1016/j.envres.2022.113793>

Cellulose acetate based sustainable nanostructured membranes for environmental remediation

2022

Ayesha Rehman Zaib Jahan Tayyaba Noor Muhammad Bilal Khan Niazi Muhammad Aftab Akram Farqooq Sher Emina Karahmet Sher Chemosphere, Volume 307, Part 1, Article Number 135736

Impact Factor: 8.943 | **Quartile:** 1 | **Citations:** 56

DOI: <https://doi.org/10.1016/j.chemosphere.2022.135736>

Graphite coatings for biomedical implants: A focus on anti-thrombosis and corrosion resistance properties

2022

Sadia Hassan Aroosa Younis Nadeem Muhammad Ali Murtaza Najabat Ali Muhammad Bilal Khan Niazi Azhar Mahmood Materials Chemistry and Physics, Volume 290, Article Number 126562

Impact Factor: 4.6 | **Quartile:** 2 | **Citations:** 13

DOI: 10.1016/j.matchemphys.2022.126562

Role of zinc-coated urea fertilizers in improving nitrogen use efficiency, soil nutritional status, and nutrient use efficiency of test crops

2022

Bilal Abdullah Muhammad Bilal Khan Niazi Zaib Jahan Obaid Khan Ameen Shahid Ghulam Abbas Shah Babar Azeem Zahid Iqbal Abid Mahmood Frontiers in Environmental Science, Volume 10, Article Number 888865

Impact Factor: 5.411 | **Quartile:** 2 | **Citations:** 7

DOI: <https://doi.org/10.3389/fenvs.2022.888865>

Facile coating of micronutrient zinc for slow release urea and its agronomic effects on field grown wheat (*Triticum aestivum* L.)

2022

Bilal Beig Muhammad Bilal Khan Niazi Zaib Jahan Munir Zia Ghulam Abbas Shah Zahid Iqbal Inamullah Douna Science of the Total Environment, Volume 838, Part 1, Article Number 155965

Impact Factor: 9.8 | **Quartile:** 1 | **Citations:** 22

DOI: <https://doi.org/10.1016/j.scitotenv.2022.155965>

Functionalized organic filler based integrated membranes for environmental remediation

2022

Alisha Tariq Abdul Rehman Khurram Skiander Rafiq Tanveer Iqbal Asif Jamil Asim Laeeq Khan Sidra Saqib Ahmad Mukhtar Nawshad Muhammad Mia Hasnain Nawaz Farrukh Jamil Muhammad Bilal Khan Niazi Saif Ur Rehman Ali Raza Afzal Shafiq uz Zaman Chemosphere, Volume 303, Part 2, Article Number 135073

Impact Factor: 8.943 | **Quartile:** 1 | **Citations:** 3

DOI: <https://doi.org/10.1016/j.chemosphere.2022.135073>

Moringa concanensis-Mediated Synthesis and Characterizations of Ciprofloxacin Encapsulated into Ag/TiO₂/Fe₂O₃/CS Nanocomposite: A Therapeutic Solution against Multidrug Resistant E. coli Strains of Livestock Infectious Diseases

2022

Muhammad Bilal Khan Niazi Naheed Zafar Bushra Uzair Farid Menaa Barkat Ali Khan Fatima S. Alaryani Kamlah Ali Majrashi Shamaila Sajjad Pharmaceutics, Volume 14, Issue 8, Article Number 1719

Impact Factor: 6.525 | **Quartile:** 1 | **Citations:** 27

DOI: 10.3390/pharmaceutics14081719

High-Selective Separation Performance of CO₂ from CH₄ by Interfacial Engineering of Ultra-low-dose Bimetallic Pyrazine-MOF based Mixed Matrix Membranes

2022

Hassan Raza Khan Zaib Jahan Muhammad Bilal Khan Niazi Tayyaba Noor Honghao Hou Sikander Rafiq Carbon Capture Science & Technology, Volume 3, Article Number 100048

Impact Factor: N/A | **Citations:** 18

DOI: <https://doi.org/10.1016/j.ccst.2022.100048>

Synthesis of non-cytotoxic Co₃O₄ nanocatalysts for thermocatalytic methane decomposition by resource recovery

2022

Sheeza Mughal Hafiz Ali Haider Sehole Asad Mumtaz Muhammad Bilal Khan Niazi Fazal Adnan Hongbo Zhao Hussnain Ahmed Janjua Biomass Conversion and Biorefinery, Pages 1-19

Impact Factor: 4.987 | **Quartile:** 1

DOI: <https://doi.org/10.1007/s13399-022-02606-x>

Challenges and recent trends with the development of hydrogel fiber for biomedical applications

2022

Pau Loke Show Muhammad Bilal Khan Niazi Reema Ansar Sidra Saqib Ahmad Mukhtar Muhammad Shahid Zaib Jahan Salik Javed Kakar Bushra Uzair Muhammad Mubashir Sami Ullah Hooi Ren Lim Kuan ShiongKhoo
Chemosphere , Volume 287, Part 1, Article Number 131956

Impact Factor: 7.086 | **Quartile:** 1 | **Citations:** 39

DOI: <https://doi.org/10.1016/j.chemosphere.2021.131956>

Green synthesis and evaluation of calcium-based nanocomposites fertilizers: A way forward to sustainable agricultural

2021

Obaid Khan Muhammad Bilal Khan Niazi Ghulam Abbas Shah Abu Huzafa Zaib Jahan Maqsood Sadiq Farooq Sher
Journal of the Saudi Society of Agricultural Sciences, Volume 20, Issue 8, Pages 519-529

Impact Factor: 0 | **Citations:** 26

DOI: <https://doi.org/10.1016/j.jssas.2021.06.005>

A performance evaluation study of nano-biochar as a potential slow-release nano-fertilizer from wheat straw residue for sustainable agriculture

2021

Hamza Ahmad Khan Salman Raza Naqvi Muhammad Taqi Mehran Asif Hussain Khoja Dagmar Juchelková Abdulaziz Atabani Muhammad Bilal Khan Niazi
Chemosphere , Volume 285, Article Number 131382

Impact Factor: 8.943 | **Quartile:** 1 | **Citations:** 106

DOI: <https://doi.org/10.1016/j.chemosphere.2021.131382>

Anti-Foulant Ultrafiltration Polymer Composite Membranes Incorporated with Composite Activated Carbon/Chitosan and Activated Carbon/Thiolated Chitosan with Enhanced Hydrophilicity

2021

Syeda Samia Nayab M. Asad Abbas Shehla Mushtaq Muhammad Bilal Khan Niazi Mehwish Batool Gul Shehnaz Naveed Ahmad Nasir Mahmood Ahmad
Membranes , Volume 11(11), Article Number 827

Impact Factor: 4.106 | **Quartile:** 1 | **Citations:** 20

DOI: 10.3390/membranes11110827

Green Synthesis of Ciprofloxacin-Loaded Cerium Oxide/Chitosan Nanocarrier and its Activity Against MRSA-Induced Mastitis

2021

Naheed Zafar Bushra Uzair Muhammad Bilal Khan Niazi Farid Menaa Ghufrana Samin Barkat Ali Khan Haroon Iqbal Bouzid Menaa
Journal of Pharmaceutical Sciences , Volume 110, Issue 10, Pages 3471-3483

Impact Factor: 3.784 | **Quartile:** 2 | **Citations:** 33

DOI: <https://doi.org/10.1016/j.xphs.2021.06.017>

Synthesis and Characterization of Carbon Dots Coated CaCO₃ Nanocarrier for Levofloxacin Against Multidrug Resistance Extended-Spectrum Beta-Lactamase Escherichia coli of Urinary Tract Infection Origin

2021

Barkat Ali Khan Amna Kanwal Bushra Uzair Shamaila Sajjad Ghufrana Samin Sajjad Ahmed Khan Leghari Muhammad Bilal Khan Niazi Sehrish Abbas
Microbial Drug Resistance , 1-14

Impact Factor: 3.431 | **Quartile:** 3 | **Citations:** 5

DOI: 10.1089/mdr.2020.0621

Starch and polyvinyl alcohol environment friendly biodegradable nanocomposites for slow releasing of urea fertilizers

2021

Nida Zafar Muhammad Bilal Khan Niazi Farooq Sher Ushna Khalid Zaib Jahan Ghulam Abbas Shah Munir Zia
Chemical Engineering Journal Advances , Volume 7, Article Number 100123

Impact Factor: 0 | **Citations:** 101

DOI: <https://doi.org/10.1016/j.ceja.2021.100123>

Metal Organic Frameworks Derived Sustainable Polyvinyl Alcohol/Starch Nanocomposite Films as Robust Materials for Packaging Applications

2021

Naveed Ahmed Khan Muhammad Bilal Khan Niazi Farooq Sher Zaib Jahan Tayyaba Noor Ofaira Azhar Tazien Rashid Naseem Iqbal Naseem Iqbal
Polymers , 13(14), 2307

Impact Factor: 4.329 | **Quartile:** 1 | **Citations:** 71

DOI: <https://doi.org/10.3390/polym13142307>

Potassium Plus Biopolymer Coating Controls Nitrogen Dynamics of Urea in Soil and Increases Wheat Production

2021

Qurat-ul-Ain Nezami Ghulam Abbas Shah Zeshan Hassan Muhammad Bilal Khan Niazi Maqsood Sadiq Atiku Bran Kamusiime Arthur Zahid Iqbal Imran Mahmood Nadeem Ali Muhammad Imtiaz Rashid
Coatings , Volume 11(7), Article Number 804

Impact Factor: 2.881 | **Quartile:** 2 | **Citations:** 8

DOI: <https://doi.org/10.3390/coatings11070804>

- Cellulose acetate-polyvinyl alcohol blend hemodialysis membranes integrated with dialysis performance and high biocompatibility** 2021
Ofaira Azhar Zaib Jahan Farooq Sher Muhammad Bilal Khan Niazi Salik Javed Kakar Muhammad Shahid Materials Science and Engineering C-Materials for Biological Applications, Volume 126, Article Number 112127
Impact Factor: 8.457 | Quartile: 1 | Citations: 125
DOI: <https://doi.org/10.1016/j.msec.2021.112127>
- Biogenic copper nanoparticles produced by using the Klebsiella pneumoniae strain NST2 curtailed salt stress effects in maize by modulating the cellular oxidative repair mechanisms** 2021
Muhammad Noman Temoor Ahmed Muhammad Shahid Muhammad Bilal Khan Niazi Muhammad Qasim Fayza Kouadri Awatif M. Abdulmajeed Suliman Mohammed Alghanem Naveed Ahmad Mohsin Zafar Shehbaz Ali Ecotoxicology and Environmental Safety, Volume 217, Article Number 112264
Impact Factor: 7.129 | Quartile: 1 | Citations: 46
DOI: <https://doi.org/10.1016/j.ecoenv.2021.112264>
- Dual-Functional Green Facile CuO/MgO Nanosheets Composite as an Efficient Antimicrobial Agent and Photocatalyst** 2021
Sehrish Abbas Bushra Uzair Shamaila Sajjad Sajjad Ahmed Khan Leghari Saima Noor Muhammad Bilal Khan Niazi Iqra Farooq Haroon Iqbal Arabian Journal for Science and Engineering, Pages 1-15
Impact Factor: 2.807 | Quartile: 2 | Citations: 29
DOI: <https://doi.org/10.1007/s13369-021-05741-1>
- Fabrication and characterization of carbon-based nanocomposite membranes for packaging application** 2021
Misbah Iqbal Muhammad Bilal Khan Niazi Zaib Jahan TAHIR AHMED Zakir Hussain Farooq Sher Polymer Bulletin, Pages 1-22
Impact Factor: 2.843 | Quartile: 3 | Citations: 29
DOI: <https://doi.org/10.1007/s00289-021-03763-1>
- Synthesis of diosgenin conjugated gold nanoparticles using algal extract of Dictyosphaerium sp. and in-vitro application of their antiproliferative activities** 2021
Sundus Jabeen Amina Maheen Iqbal Amir Faisal Zunaira Shoaib Muhammad Bilal Khan Niazi Nasir Mahmood Ahmad Nauman Khalid Hussnain A. Janjua Materials Today Communications, Volume 27, Article Number 102360
Impact Factor: 3.662 | Quartile: 3 | Citations: 18
DOI: <https://doi.org/10.1016/j.mtcomm.2021.102360>
- A Low-Cost Sustainable Energy Solution for Pristine Mountain Areas of Developing Countries** 2021
Shakil Rehman Sheikh Syed Hassan Raza Shah Umar Rauf Fawad Rauf Zareena Kausar Umair Aziz Muhammad Faizan Shah Haseeb Yaqoob Muhammad Bilal Khan Niazi Energies, Volume 14(11), Article Number 3160
Impact Factor: 3.252 | Quartile: 3 | Citations: 6
DOI: <https://doi.org/10.3390/en14113160>
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Intellectual Property

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Patents

Composition and Method of Manufacturing of Biodegradable Packaging from Sawdust and Corn Starch Status: Filed	2024
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