

Muhammad Shoaib Butt

Associate Professor

School of Chemical & Materials Engineering

Email: muhammad.shoaib@scme.nust.edu.pk

Contact: 051-908552

LinkedIn:



About

Dr. Muhammad Shoaib Butt is working as Associate Professor in the School of Chemical & Materials Engineering. Dr. Muhammad Shoaib Butt has a PhD in Biomaterials. Dr. Muhammad Shoaib Butt has published 32 research articles & conference papers having a citation count of 450, carried out 5 projects and filed 0 intellectual property.

Qualifications

PhD in Biomaterials Southeast University , China	2014 - 2017
MPhil in Metallurgy And Materials Engineering South University of Science and Technology of China , China	2012 - 2014
B.Sc (Hon) in metallurgy University of the Punjab , Pakistan	2006 - 2010

Experience

Associate Professor School of Chemical & Materials Engineering	2024- Present
Assistant Professor School of Chemical & Materials Engineering	2021 - 2024
Assistant Professor School of Chemical & Materials Engineering	2018 - 2021
Assistant Professor School of Chemical & Materials Engineering	2018 - 2018
Teaching Assistant Southeast University,Nanjing China , Southeast University,Nanjing China	2015 - 2017

Awards

NUST "Teaching Skills and OBE,Stress and Time Management for NUST Faculty"	2018
Southeast University Successfully scheduled, provided, and established high quality learning opportunities for the students to achieve learning goals, in accordance with the university mission, values and ethos.	2015
Pakistan Engineering Coun Member of Pakistan Engineering Council as Membership No. METAL/2557	2011
PITAC Quality Control Inspector	2011
Punjab Unviersity Non-Destructive Evaluation of Weldments and their Remedies	2010
PICS Stress and Anger Mangement	2010
Lawrence College HOCKEY COLOR	2010

Research Projects

National Projects

- 4th ASEAN-Pakistan Conference on Materials Science (APCoMS 2025)** 2025
Funding Agency: ASEAN Pakistan Collaboration Fund
Amount: PKR 24,780,568.00
Status: Approved_inprocess
- Skin stapling for wound closure in the emergency department** 2021
Funding Agency: NUST
Amount: PKR 300,000.00
Status: Completed
- Intestinal anastomosis with a skin stapler: a safe and efficient method in human** 2022
Funding Agency: HEC
Amount: PKR 19,750,000.00
Status: Approved_inprocess
- Development of biodegradable sutures for surgical incisions and wounds** 2021
Funding Agency: PSF
Amount: PKR 1,765,652.00
Status: Completed
- Biodegradable Metallic Materials Strengthened Poly-Lactic Acid (PLA) Composites through Interfacial Properties for Osteosynthesis Implantation** 2018
Funding Agency: HEC
Amount: PKR 492,000.00
Status: Completed

International Projects

Research Articles

- Green synthesis of niosomal dual drug delivery systems for synergistic anticancer therapy** 2025
Tabinda Kiran Muhammad Shoaib Butt Sobia Rafique Nimra Shabbir Daulat Haleem Khan Yumna Yousaf Hafiza Madiha Saeed
Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 718, Article Number 136883
Impact Factor: 4.900 | **Quartile:** 2
DOI: <https://doi.org/10.1016/j.colsurfa.2025.136883>
- From staples to biodegradable solutions: AZ31 magnesium alloy sutures with dual-layer PAA-chitosan coating for intestinal anastomosis** 2025
Nauman Javed Aimen Hanif Muhammad Shoaib Butt
International Journal of Biological Macromolecules, Volume 315, Part 1, Article Number 144162
Impact Factor: 7.700 | **Quartile:** 1
DOI: <https://doi.org/10.1016/j.ijbiomac.2025.144162>
- Computational Fluid Dynamics Simulation and Analysis of Non-Newtonian Drilling Fluid Flow and Cuttings Transport in an Eccentric Annulus** 2024
Muhammad Ahsan Shah Fahad Muhammad Shoaib Butt
Mathematics, Volume:13, Issue:1, Article Number 101
Impact Factor: 2.300 | **Quartile:** 1
DOI: <https://doi.org/10.3390/math13010101>
- Solution-combustion synthesis of AgCo3O4/FeMn-O multiphase composite for high-performance asymmetric supercapacitor** 2024
Moiz Anwar Asmara Fazal Muhammad Javaid Iqbal Badriah S. Almutairi Muhammad Zubair Khan Muneeb Irshad Mohsin Ali Raza Muhammad Shoaib Butt
Mohsin Saleem (Corresponding Author) Waqas Ahmed Abdul Ghaffar
Journal of Energy Storage, Volume: 105, Article Number: 114602, Pages:16
Impact Factor: 8.9 | **Quartile:** 1 | **Citations:** 3
DOI: <https://doi.org/10.1016/j.est.2024.114602>
- Targeted Delivery of Letrozole-loaded Mg-doped Cobalt Ferrite Nanoparticles for Breast Cancer Treatment** 2024
Huma Ijaz Urwah Raseed Naeem Kiani Hina Saeed Rumeza Hanif Sidra Anwar Nauman Javed Muhammad Shoaib Butt
Journal of Drug Delivery Science and Technology, Volume 101, Part B, Article Number 106245
Impact Factor: 4.500 | **Quartile:** 1 | **Citations:** 5

DOI: 10.1016/j.jddst.2024.106245

Fabrication and Biocompatibility of Neem/Chitosan Coated Silk Sutures for Infection Control and Wound Healing

2024

Urwah Raseed Naeem Kiani Muhammad Shoaib Butt Hina Saeed Rumeza Hanif Sidra Anwar
Journal of King Saud University-Science, Volume 36, Issue 10, Article Number 103435

Impact Factor: 3.700 | **Quartile:** 1 | **Citations:** 8

DOI: <https://doi.org/10.1016/j.jksus.2024.103435>

Recovery and restoration of glass fibers from end-of-life composite waste through pyrolysis and partial oxidation processes combined with hot alkaline surface treatments

2024

A. Rafay Muhammad Irfan Salman Raza Naqvi Malik Adeel Umer M. A. Rehman Mohsin Saleem Muhammad Shoaib Butt Asad Ullah Khan
Polymer Composites, Pages 1-14

Impact Factor: 4.800 | **Quartile:** 1

DOI: <https://doi.org/10.1002/pc.28916>

3D-printed polyether-ether ketone/carboxymethyl cellulose scaffolds coated with Zn–Mn doped mesoporous bioactive glass nanoparticles

2024

Awab Mughal Syed Muneeb Haider Gillani Sheraz Ahmed Duaa Fatima Rabia Hussain Jawad Manzur Muhammad Haseeb Nawaz Badar Minhas Muhammad Shoaib Butt Mahdi Bodaghi Muhammad Atiq Ur Rehman

Journal of the Mechanical Behavior of Biomedical Materials, Volume: 156, Article Number: 106581

Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 14

DOI: <https://doi.org/10.1016/j.jmbbm.2024.106581>

Kappa-carrageenan and sodium alginate-based pH-responsive hydrogels for controlled release of methotrexate

2024

Muhammad Anees Ur Rehman Qureshi Nasima Arshad Atta Rasool Naveed Kausar Janjua Muhammad Shoaib Butt Muhammad Naqeeb Ur Rehman Qureshi Hammad Ismail

Royal Society Open Science, Volume: 11, Issue: 04, Pages: 19

Impact Factor: 3.5 | **Quartile:** 2 | **Citations:** 7

DOI: <https://doi.org/10.1098/rsos.231952>

Moringa oleifera/chitosan-coated silk sutures for improved wound healing

2024

Muhammad Shoaib Butt Zainab Malik Rabia Ghaffar Abrar H Baluch Mohsin Saleem Abdul Ghaffar
Materials Chemistry and Physics, Volume 313, Article Number 128737

Impact Factor: 4.6 | **Quartile:** 2 | **Citations:** 9

DOI: <https://doi.org/10.1016/j.matchemphys.2023.128737>

Antibacterial and photocatalytic properties of Ag-doped CeO₂:BaO synthesized by simple solution combustion method

2023

Aniqa Rani Rabia Ghaffar Muhammad Shoaib Butt Muneeb Irshad Mohsin Saleem Muhammad Hanif Muhammad Arshad Suleman Ahmad Abid Aleem Abdul Ghaffar

Materials Letters, Volume 353, Article Number 135270

Impact Factor: 3.0 | **Quartile:** 2 | **Citations:** 1

DOI: <https://doi.org/10.1016/j.matlet.2023.135270>

Influence of zinc substitution on the structural, dielectric, and gas sensing properties of Mg_{1-x}Zn_xFe₂O₄ nanoparticles

2023

Iqra Nazir Farhan Javaid Mutawara Mahmood Baig Muhammad Shoaib Butt Ittikhar Hussain Gul
ACS Omega, Volume 8, Issue 38, Pages 34760-34767

Impact Factor: 4.1 | **Quartile:** 2 | **Citations:** 3

DOI: <https://doi.org/10.1021/acsomega.3c03781>

Synthesis and characterization of cobalt doped ferrites for biomedical applications

2023

Muhammad Naeem Kiani Muhammad Shoaib Butt Ittikhar Hussain Gul Mohsin Saleem Muhammad Irfan Abrar H. Baluch Muhammad Aftab Akram Mohsin Ali Raza

ACS Omega, Pages 1-7

Impact Factor: 4.132 | **Quartile:** 2 | **Citations:** 41

DOI: <https://doi.org/10.1021/acsomega.2c05226>

Impact based characterization of composites using a computational framework

2023

Zaigham Saeed Toor Abrar H Baluch Abdul Wadood Atiq Ur Rehman Mohsin Saleem Muhammad Shoaib Butt Khazar Hayat
ACTA ASTRONAUTICA, Volume 202, Pages 705-714

Impact Factor: 2.954 | **Quartile:** 1 | **Citations:** 4

DOI: <https://doi.org/10.1016/j.actaastro.2022.11.011>

- Study of ferroelectric and piezoelectric response of heat-treated surfactant-based BaTiO₃ nanopowder for high energy capacitors** 2023
Gulraiz Tanvir Mohsin Saleem Hamid Jabbar Amir Hamza Muhammad Asif Hussain Muhammad Zubair Khan Abrar H. Baluch Muhammad Irfan Muhammad Shoaib Butt Faysal Naeem Abdul Ghaffar Muhammad Ahsan Muhammad Asif Rafiq Rizwan Ahmed Malik Adnan Maqbool
Materials Science and Engineering B, Volume 287, Article Number 116100
Impact Factor: 3.407 | **Quartile:** 2 | **Citations:** 9
DOI: <https://doi.org/10.1016/j.mseb.2022.116100>
- Improved super capacitive performance of hydrothermally developed Mn and Ni oxides along with activated carbon as ternary nanocomposite** 2022
Faiza Khalid Mohsin Saleem Hamid Jabbar Muhammad Gulraiz Tanvir Muhammad Shoaib Butt Abrar H. Baluch Abdul Ghaffar Muhammad Ahsan Rizwan Ahmed Malik Umit Alver Hussein Alrobei Zab dur Rehman Meshal Alzaid Muhammad Zubair Khan
Journal of Physics and Chemistry of Solids, Volume 161, Article Number 110467
Impact Factor: 3.995 | **Quartile:** 2 | **Citations:** 11
DOI: <https://doi.org/10.1016/j.jpcs.2021.110467>
- Enhancement in bonding strength and ageing resistance of polychloroprene solvent-based adhesives through graft copolymerization** 2021
Fariz Aneeq Muhammad Shahid Mohsin Saleem Muhammad Awais Muhammad Shoaib Butt Malik Adeel Umer
Journal of Adhesion Science and Technology, Volume 35, No.16, Pages 1752-1763
Impact Factor: 2.077 | **Quartile:** 3 | **Citations:** 7
DOI: <https://doi.org/10.1080/01694243.2020.1857581>
- Nanoporous Alumina Membranes for Sugar Industry: An Investigation of Sintering Parameters Influence on Ultrafiltration Performance** 2021
Farooq Khan Niazi Malik Adeel Umer Ashfaq Ahmed Muhammad Arslan Hafeez Zafar Khan Muhammad Shoaib Butt Z Luo Young-Kwon Park Abdul Razzaq
Sustainability, Volume 13(14), Article Number 7593
Impact Factor: 3.251 | **Quartile:** 2 | **Citations:** 2
DOI: <https://doi.org/10.3390/su13147593>
- In Situ Synthesis of a Polyaniline/ Fe–Ni Codoped Co₃O₄ Composite for the Electrode Material of Supercapacitors with Improved Cyclic Stability** 2021
Muhammad Aftab Akram Sofia Javed Muhammad shoaib Butt Muhammad Usman Muhammad Adnan Muhammad Tayyab Ahsan
ACS Omega, Volume 6(2), Pages 1190-1196
Impact Factor: 4.132 | **Quartile:** 2 | **Citations:** 55
DOI: <https://doi.org/10.1021/acsomega.0c04306>
- Numerical and Experimental evaluation of the Mechanical behavior of Kevlar/Glass fiber reinforced epoxy hybrid composites** 2020
Mohsin Saleem Muahmmad Shoaib Butt Muhammad Nabeel Muhammad Ali Nasir Mariyam Sattar Rizwan Ahmed Malik Meshal Alzaid Hussein Alrobei
Journal of Mechanical Science and Technology, Volume 34(11), Pages 4613-4619
Impact Factor: 1.734 | **Quartile:** 3 | **Citations:** 13
DOI: <http://doi.org/10.1007/s12206-020-1019-1>
- Numerical Modeling of Ejector and Development of Improved Methods for the Design of Ejector-Assisted Refrigeration System** 2020
Mohsin Saleem Muahmmad Shoaib Butt Hafiz Ali Muhammad Hafiz Muhammad Abdullah Zabdur Rehman Beomjoon Lee Young-Jin Baik Jongjae Cho Muhammad Imran Manzar Masud
Energies, Volume 13(21), Article Number 5835
Impact Factor: 2.702 | **Quartile:** 3 | **Citations:** 6
DOI: <https://doi.org/10.3390/en13215835>
- Development and Aging Behaviour of Solvent-Based Polychloroprene Rubber Nano-Adhesive Using Multiwall Carbon Nanotubes** 2020
Muhammad Awais Muhammad Shahid Mohsin Saleem Fariz Aneeq Muhammad Shoaib Butt Malik Adeel Umer
Journal of Materials Science and Chemical Engineering, Volume 8(9), Pages 31-44
Impact Factor: -
DOI: 10.4236/msce.2020.89004
- Synthesis and Characterization of PVA/Starch Hydrogel Membranes Incorporating Essential Oils Aimed to be Used in Wound Dressing Applications** 2020
Farrukh Altaf Muhammad Bilal Khan Niazi Zaib Jahan Tahir Ahmad Muhammad Aftab Akram Amna Safdar Muhammad Shoaib Butt Tayyaba Noor Farooq Sher
Journal of Polymers and the Environment, Pages 1-19
Impact Factor: 3.667 | **Quartile:** 2 | **Citations:** 145

DOI: <https://doi.org/10.1007/s10924-020-01866-w>

Corrosion and wear behavior of TiN PVD coated 304 stainless-steel

2020

Muhammad Shoaib Butt Awais Awan Riffat Asim Pasha Rizwan Ahmed Malik Ibrahim M Alarifi Meshal Alzaid Muhammad Latif Ammar Naseer Mohsin Saleem Hussein Alrobei

Journal of Mechanical Science and Technology, Volume 34, Pages 3227–3232

Impact Factor: 1.734 | **Quartile:** 3 | **Citations:** 17

DOI: DOI 10.1007/s12206-020-0714-2

Revealing the Effects of Microarc Oxidation on the Mechanical and Degradation Properties of Mg-Based Biodegradable Composites

2020

Muhammad Shoaib Butt Mohsin Saleem Adnan Maqbool Malik Adeel Umer Farhan Javaid Rizwan Ahmed Malik Muhammad Asif Hussain Zabdur Rehman ACS Omega, Volume 5(23), Pages 13694–13702

Impact Factor: 2.87 | **Quartile:** 2 | **Citations:** 14

DOI: <https://dx.doi.org/10.1021/acsomega.0c00836>

Enhanced Mechanical Properties of Surface Treated AZ31 Reinforced Polymer Composites

2020

Muhammad Shoaib Butt Mohsin Saleem Adnan Maqbool Malik Adeel Umer Rizwan Ahmed Malik Ibrahim M. Alarif Hussein Alrobei Crystals, Volume 10, Issue 5, Article Number 381

Impact Factor: 2.404 | **Quartile:** 2 | **Citations:** 10

DOI: <https://doi.org/10.3390/cryst10050381>

Percolation phenomena of dielectric permittivity of a microwave-sintered BaTiO₃–Ag nanocomposite for high energy capacitor

2020

Mohsin Saleem Muhammad Shoaib Butt Adnan Maqbool Malik Adeel Umer Muhammad Shahid Farhan Javaid Rizwan Ahmed Malik Hamid Jabbar Hafiz Muhammad Waseem Khalil Lim Dong Hwan Minsoo Kim Bo-Kun Koo Soon Jong Jeong

Journal of Alloys and Compounds, Volume 822, Article Number 153525

Impact Factor: 5.316 | **Quartile:** 1 | **Citations:** 29

DOI: <https://doi.org/10.1016/j.jallcom.2019.153525>

Biodegradable Mg Strengthened Poly-Lactic Acid Composite through Interfacial Properties

2017

Muhammad Shoaib Butt Jing Bai Feng Xue

Materials Science Forum, Volume 900, Pages 7-11

Impact Factor: - | **Citations:** 3

DOI: 10.4028/www.scientific.net/MSF.900.7

Mechanical and degradation properties of biodegradable Mg strengthened poly-lactic acid composite through plastic injection molding

2017

Muhammad Shoaib Butt Jing Bai Xiaofeng Wan Chenglin Chu Feng Xue Hongyan Ding Guanghong Zhou

Materials Science and Engineering C, Volume 70, Part 1, Pages 141-147

Impact Factor: 5.080 | **Quartile:** 1 | **Citations:** 31

DOI: 10.1016/j.msec.2016.08.051

Conference Proceedings

Degradation behavior of biodegradable Mg skin staple pins: Dual defense against corrosion and bacterial infections

2024

Muhammad Shoaib Butt Romana

27th International Congress of Chemical and Process Engineering, res.country(56,)

Citations: N/A

DOI: Nil

Synthesis and Characterization of Activated Carbon and its Application for Wastewater Treatment

2023

Farhan Raheel A Rafay Bushra Bibi Sher Ahmad Zeeshan Ali Mohsin Saleem M Shoaib Butt Atiq Ur Reham Muhammad Irfan

The 6th Conference on Emerging Materials and Processes (CEMP 2023), res.country(177,)

Citations: N/A

DOI: Nil

Editorial Activities

Biomedical Materials & Devices

2025

Reviewed Papers for Journals

Impact Factor: 4.8

Biomedical Materials & Devices

2025

Reviewed Papers for Journals Impact Factor: 4.8	
Biomedical Materials & Devices Reviewed Papers for Journals	2025
Life Reviewed Papers for Journals Impact Factor: 3.2	2024
ChemistrySelect Reviewed Papers for Journals Impact Factor: 2.3	2024
Pharmacognosy Magazine Reviewed Papers for Journals Impact Factor: 1.5	2024
International Journal of Biological Macromolecules Reviewed Papers for Journals Impact Factor: 8.2	2024
International Journal of Molecular Sciences Reviewed Papers for Journals Impact Factor: 5.6	2024
Advanced Engineering Materials Reviewed Papers for Journals Impact Factor: 4.122	2023
Journal of Polymers and the Environment Reviewed Papers for Journals Impact Factor: 5.3	2023
Journal of Functional Biomaterials Reviewed Papers for Journals Impact Factor: 4.9	2023
Nanoscale Advances Reviewed Papers for Journals Impact Factor: 4.7	2023
Journal of Personalized Medicine Reviewed Papers for Journals Impact Factor: 2.6	2023
Crystals Reviewed Papers for Journals Impact Factor: 2.7	2023
Coatings Reviewed Papers for Journals Impact Factor: 3.236	2023
Journal of Functional Biomaterials Reviewed Papers for Journals Impact Factor: 4.901	2023
Materials Reviewed Papers for Journals Impact Factor: 3.623	2023
Applied Sciences-Basel Reviewed Papers for Journals Impact Factor: 2.838	2023
Materials Reviewed Papers for Journals Impact Factor: 3.748	2023
Journal of Functional Biomaterials	2023

Reviewed Papers for Journals Impact Factor: 4.901	
Sensors	2023
Reviewed Papers for Journals Impact Factor: 3.576	
Aerospace	2023
Reviewed Papers for Journals Impact Factor: 2.66	
International Journal of Molecular Sciences	2023
Reviewed Papers for Journals Impact Factor: 6.208	
Coatings	2023
Reviewed Papers for Journals Impact Factor: 3.236	
Materials	2023
Reviewed Papers for Journals Impact Factor: 3.748	
Polymers	2022
Reviewed Papers for Journals Impact Factor: 4.967	
Corrosion and materials degradation	2022
Reviewed Papers for Journals Impact Factor: N/A	
Crystals	2022
Reviewed Papers for Journals Impact Factor: 2.670	
Journal of Functional Biomaterials	2022
Reviewed Papers for Journals Impact Factor: 4.901	
Reviewed Papers for Journals Impact Factor: 0.2	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals Impact Factor: 3.512	2021
Reviewed Papers for Journals Impact Factor: 4.749	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals Impact Factor: 0.007	2020

Reviewed Papers for Journals 2020

Reviewed Papers for Journals 2020

Trainings

The Science Fun 2023 2023

Partner: None

Duration: 12-Apr-2023 to 21-Jul-2023

The Science Fun 2022

Partner: None

Duration: 20-May-2022 to 05-Aug-2022