

Farhan Javaid

Associate Professor
School of Chemical & Materials Engineering

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About

Dr. Farhan Javaid is working as Associate Professor in the School of Chemical & Materials Engineering. Dr. Farhan Javaid has a PhD in Micro And Nano Mechanics. Dr. Farhan Javaid has published 27 research articles & conference papers having a citation count of 481, carried out 3 projects and filed 0 intellectual property.

Qualifications

PhD in Micro And Nano Mechanics Technische Universität Darmstadt , Germany	2013 - 2017
MS in Materials and Surface Engineering NUST, Islamabad , Pakistan	2007 - 2009
B.Sc (Hon) in Metallurgical & Materials Engineering UET Lahore , Pakistan	2002 - 2006

Experience

Associate Professor School of Chemical & Materials Engineering	2024- Present
Assistant Professor School of Chemical & Materials Engineering	2019 - 2019
Lecturer School of Chemical & Materials Engineering	2010 - 2019
Research Scientist TU Darmstadt , Alarich-Weiss-Straße 2, Darmstadt, Germany	2017 - 2018

Awards

President Gold Medal President Gold Medal for overall best performance in MS Materials and Surface Engg.	2010
UET Lahore Gold Medal Gold Medal for Best Overall Performance in B.Sc. Metallurgical & Materials Engg.	2006

Professional Memberships

PEC	Since 2007
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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
Material Composition & Trace Analysis Investigation Funding Agency: PAF Amount: PKR 168,600.00 Status: Completed	2022
Advance Nickel Alloy Coatings for Aerospace Applications Funding Agency: NESCOM Amount: PKR 200,000.00 Status: Completed	2022

International Projects

Research Articles

Regenerable chitosan-embedded magnetic iron oxide beads for nitrate removal from industrial wastewater <i>Muntaha Nasir Farhan Javaid Muhammad Talha Masood Muhammad Arshad Muhammad Yasir Vladimir Sedlarik Muhammad Abdel Qadir Hazim Qiblawey Wenjuan Zhang Kashif Mairaj Deen Edouard Asselin Dr. Nasir Mahmood Ahmad</i> <i>Environmental Science: Advances</i> , Volume 3(4), Pages 572-584 Impact Factor: 3.500 Quartile: 2 Citations: 8 DOI: 10.1039/D3VA00351E	2024
Synthesis and Characterization of Zr4+-Y3+ Substituted Ba-Sr Hexaferrite Nanoparticles for Microwave Absorption and Electromagnetic Shielding Applications <i>Muhammad Zarrar Khan Iftikhar Hussain Gul Farhan Javaid Ahmed Ali Saiqa Hafeez Mutawara Mahmood Baig</i> <i>Materials Research Bulletin</i> , Volume:168, Article Number: 112468 Impact Factor: 5.4 Quartile: 2 Citations: 19 DOI: 10.1016/j.materresbull.2023.112468	2023
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
Influence of zinc substitution on the structural, dielectric, and gas sensing properties of Mg1-xZnxFe2O4 nanoparticles <i>Iqra Nazir Farhan Javaid Mutawara Mahmood Baig Muhammad Shoaib Butt Iftikhar Hussain Gul</i> <i>ACS Omega</i> , Volume 8, Issue 38, Pages 34760-34767 Impact Factor: 4.1 Quartile: 2 Citations: 3 DOI: 10.1021/acsomega.3c03781	2023
Tuning the electronic properties in facile in-situ solution synthesis of SnSe2/rGO nanocomposites with enhanced thermoelectric performance <i>Haad Khan Muhammad Siyar Chan Park Farhan Javaid Malik Adeel Umer Woochan Jin Mohsin Saleem Adnan</i> <i>Journal of Materials Research</i> , Volume 38, Pages 3913-3922 Impact Factor: 2.7 Quartile: 3 Citations: 5 DOI: 10.1557/s43578-023-01112-8	2023
Novel cytotoxicity study of strontium (Sr) doped iron oxide (Fe3O4) nanoparticles aided with ibuprofen for drug delivery applications <i>Imad Ud Din Irum Shahid Khan Iftikhar Hussain Gul Zakir Hussain Waheed Miran Farhan Javaid Usman Liaqat</i> <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , Pages 1-17 Impact Factor: 3.6 Quartile: 2 Citations: 7 DOI: https://doi.org/10.1007/s00210-023-02582-7	2023

Improved photocatalytic degradation efficiency of methylene blue via MgAl₂O₄–graphene nanocomposite <i>Ahmed Ali Iftikhar Hussain Gul Muhammad Zarrar Khan Farhan Javaid</i> <i>Journal of Korean Ceramic Society</i>, Pages 1-8 Impact Factor: 2.506 Quartile: 2 Citations: 4 DOI: https://doi.org/10.1007/s43207-022-00263-4	2022
Graphene oxide incorporated polyether sulfone nanocomposite antifouling ultrafiltration membranes with enhanced hydrophilicity <i>Amber Salim Muhammad Asad Abbas Imran Ahmad Khan Muhammad Zafar Khan Farhan Javaid Shehla Mushtaq Mehwish Batool Muhammad Yasir Asim</i> <i>Laeq Khan Asad Ullah Khan Kashif Mairaj Deen Nasir Mahmood Ahmad</i> <i>Materials Research Express</i>, Volume 9, Issue 7, Article Number 075503 Impact Factor: 2.025 Quartile: 4 Citations: 8 DOI: 10.1088/2053-1591/ac81a3	2022
Dislocation–grain boundary interactions: recent advances on the underlying mechanisms studied via nanoindentation testing <i>Farhan Javaid Habib Pouriaeyevali Karsten Durst</i> <i>Journal of Materials Research</i>, Pages 1-13 Impact Factor: 2.909 Quartile: 3 Citations: 40 DOI: https://doi.org/10.1557/s43578-020-00096-z	2021
Evaluation of mechanical properties and hydrophobicity of room-temperature, moisture-curable polysilazane coatings <i>Farhan Javaid Ralf Grottenmüller Wei Li Ralf Riedel Ying Zhan</i> <i>Journal of Applied Polymer Science</i>, Pages 1-10, Article Number e50469 Impact Factor: 3.057 Quartile: 2 Citations: 53 DOI: https://doi.org/10.1002/app.50469	2021
Improving functional properties of PVA/starch-based films as active and intelligent food packaging by incorporating propolis and anthocyanin <i>Pakeeza Mustafa Zaib Jahan Muhammad Bilal Khan Niazi Sikander Rafiq Tahir Ahmad Umair Sikander Farhan Javaid</i> <i>Polymers & Polymer Composites</i>, Pages 1-13 Impact Factor: 2.000 Quartile: 3 Citations: 32 DOI: https://doi.org/10.1177/0967391120973503	2020
Local analysis on dislocation structure and hardening during grain boundary pop-ins in tungsten <i>Farhan Javaid Yukun Xu Karsten Durst</i> <i>Journal of Materials Science</i>, Volume 55, Pages 9597-9607 Impact Factor: 4.220 Quartile: 2 Citations: 13 DOI: https://doi.org/10.1007/s10853-020-04655-x	2020
Revealing the Effects of Microarc Oxidation on the Mechanical and Degradation Properties of Mg-Based Biodegradable Composites <i>Muhammad Shoaib Butt Mohsin Saleem Adnan Maqbool Malik Adeel Umer Farhan Javaid Rizwan Ahmed Malik Muhammad Asif Hussain Zabdur Rehman</i> <i>ACS Omega</i>, Volume 5(23), Pages 13694–13702 Impact Factor: 2.87 Quartile: 2 Citations: 14 DOI: https://dx.doi.org/10.1021/acsomega.0c00836	2020
Percolation phenomena of dielectric permittivity of a microwave-sintered BaTiO₃–Ag nanocomposite for high energy capacitor <i>Mohsin Saleem Muhammad Shoaib Butt Adnan Maqbool Malik Adeel Umer Muhammad Shahid Farhan Javaid Rizwan Ahmed Malik Hamid Jabbar Hafiz</i> <i>Muhammad Waseem Khalil Lim Dong Hwan Minsoo Kim Bo-Kun Koo Soon Jong Jeong</i> <i>Journal of Alloys and Compounds</i>, Volume 822, Article Number 153525 Impact Factor: 5.316 Quartile: 1 Citations: 29 DOI: https://doi.org/10.1016/j.jallcom.2019.153525	2020
Stress-driven grain boundary movement during nanoindentation in tungsten at room temperature <i>Farhan Javaid, Karsten Durst</i> <i>Materialia</i>, Volume 1, page 99-103 Impact Factor: N/A Citations: 9 DOI: https://doi.org/10.1016/j.mtla.2018.04.002	2018
Indentation size effect in tungsten: Quantification of geometrically necessary dislocations underneath the indentations using HR-EBSD	2018

Farhan Javaid Yukun Xu Enrico Bruder Karsten Durst
Materials Characterization , Volume 142, Pages 39-42

Impact Factor: 3.22 | Quartile: 1 | Citations: 18

DOI: 10.1016/j.matchar.2018.05.016

Temperature Dependence of Indentation Size Effect Dislocation Pile ups and Lattice Friction in 001

2018

Strontium Titanate

Farhan Javaid Kurt E. Johanns Eric A. Patterson Karsten Durst

Journal of the American Ceramic Society, Volume 101, Issue 1, Pages 356-364

Impact Factor: 3.094 | Quartile: 1 | Citations: 24

DOI: 10.1111/jace.15182

Indentation size effect and dislocation structure evolution in (001) oriented SrTiO₃ Berkovich

2017

indentations: HR-EBSD and etch-pit analysis

Farhan Javaid Enrico Bruder Karsten Durst

Acta Materialia , Volume 139 Pages 1-10

Impact Factor: 6.036 | Quartile: 1 | Citations: 50

DOI: 10.1016/j.actamat.2017.07.055

3D Dislocation structure evolution in strontium titanate: Spherical indentation experiments and MD simulations

2017

Farhan Javaid Alexander Stukowski Karsten Durst¹

Journal of the American Ceramic Society, Volume 100, Issue 3, Pages 1134-1145

Impact Factor: 2.956 | Quartile: 1 | Citations: 44

DOI: 10.1111/jace.14626

Effect of magnesium on the properties of ultrafine grained aluminum processing through equal channel angular pressing (ECAP)

2010

F. M. Rashad B. Verlinden FARHAN JAVED S. H. Ansari

NUST Journal of Engineering Sciences, Vol.3, No.1, Pages 59-66

Impact Factor: 0

DOI: 10.24949%2Fnjes.v3i1.19

- Indentation size effect and 3D dislocation structure evolution in (001) oriented SrTiO₃: HR- EBSD and etch-pit analysis** 2017
Karsten Durst Farhan Javaid Enrico Bruder Alexander Stukowski
Nanomechanical Testing in Materials Research and Development VI, res.country(97,)
Citations: N/A
DOI: N/A
- Evolution of dislocation structure around and underneath the indentation in single crystalline strontium titanate** 2016
Karsten Durst Farhan Javaid
MSE Congress 2016, res.country(57,)
Citations: 35
DOI: 10.1111/jace.14626
- Temperature dependence of indentation size effect, dislocation pile-ups and lattice friction in single crystalline strontium titanate** 2016
Karsten Durst Farhan Javaid Kurt E. Johanns Eric A. Patterson
Nanobrücken 2016 - Nanomechanical Testing Workshop and Hysitron User Meeting, res.country(57,)
Citations: N/A
DOI: <https://imechanica.org/node/19342>
- Temperature dependence of indentation size effect, lattice friction in single crystalline strontium titanate** 2016
Karsten Durst Farhan Javaid Kurt Johanns Eric Patterson
2nd Schöntal Symposium - Dislocation based Plasticity, res.country(57,)
Citations: 17
DOI: 10.1111/jace.15182
- REVEALING DISLOCATION STRUCTURE AROUND AND UNDERNEATH INDENTATIONS IN (001) STRONTIUM TITANATE SINGLE CRYSTAL AT ROOM TEMPERATURE AND 350 OC** 2015
Farhan Javaid Kurt E. Johanns Karsten Durst
Nanomechanical Testing in Materials Research and Development V, res.country(183,)
Citations: N/A
DOI: https://dc.engconfintl.org/nanomechtest_v/19/
- Revealing Dislocation Structure in (001) Strontium Titanate (SrTiO₃) Single Crystal after Nano-indentation** 2014
Farhan Javaid Karsten Durst
Keysight - Nanomechanical Testing, res.country(57,)
Citations: N/A
DOI: N/A

Editorial Activities

The European Physical Journal Plus Reviewed Papers for Journals Impact Factor: 2.8	2024
The European Physical Journal Plus Reviewed Papers for Journals Impact Factor: 3.4	2024
International Journal of Biological Macromolecules Reviewed Papers for Journals Impact Factor: 8.2	2023
Journal of Materials Research Reviewed Papers for Journals Impact Factor: 2.909	2022
 Reviewed Papers for Journals Impact Factor: 3.089	2021
 Reviewed Papers for Journals Impact Factor: 3.089	2021
 Reviewed Papers for Journals Impact Factor: X Category	2020