

Rahim Jan

Adjunct Faculty

School of Chemical & Materials Engineering

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Contact:



About

Dr. Rahim Jan is working as Adjunct Faculty in the School of Chemical & Materials Engineering. Dr. Rahim Jan has a PhD in Materials and Surface Engg. Dr. Rahim Jan has published 40 research articles & conference papers having a citation count of 704, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Materials and Surface Engg	2010 - 2016
NUST, Islamabad , Pakistan	
MS in Materials Sciences	2008 - 2010
NUST, Islamabad , Pakistan	
MSc in Materials Sciences	2000 - 2002
University of Peshawar , Pakistan	
BSc in Physics	1997 - 1999
Gomal University , Pakistan	

Experience

Adjunct Faculty	2022- Present
School of Chemical & Materials Engineering	

Research Articles

Dynamics of absorption peaks in plasmonic nanostructures	2025
Rahim Jan Imtiaz Ahmad Sajjad Ahmad Khan	
Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 709, Part 1, Article Number 136115	
Impact Factor: 4.900 Quartile: 2	
DOI: https://doi.org/10.1016/j.colsurfa.2025.136115	
Gold nanoshapes: A study on shape and energy reduction	2025
Rahim Jan Imtiaz Ahmad Hidayat Ullah Khan Sajjad Ahmad Khan	
Journal of Molecular Liquids, Volume 422, Article Number 126899	
Impact Factor: 5.300 Quartile: 1	
DOI: https://doi.org/10.1016/j.molliq.2025.126899	
Purification of distinct nano shapes from a mixtures of rods and spheres	2025
Imtiaz Ahmad Rahim Jan	
Chemical Physics, Volume 591, Article Number 112572	
Impact Factor: 2.000 Quartile: 3 Citations: 1	
DOI: https://doi.org/10.1016/j.chemphys.2024.112572	
Gold nano densities: Relationship with drying parameters	2024
Dr. Rahim Jan Imtiaz Ahmad Sajjad Ahmad Khan Hidayat Ullah Khan	
Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 702, Part 2, Article Number 135082	
Impact Factor: 4.900 Quartile: 2 Citations: 4	
DOI: https://doi.org/10.1016/j.colsurfa.2024.135082	
Study of coffee stains for various nano concentrations	2024
Imtiaz Ahmad Hidayat Ullah Khan Rahim Jan	
Journal of Materials Research, Pages 1-15	
Impact Factor: 2.700 Quartile: 3	
DOI: DOI:10.1557/s43578-024-01486-3	

A key parametric study of ultrasonic exfoliation of 2D TiB2 using DI water as a unique medium	2024
<i>Marghoob Ahmed Muhammad Aftab Akram Afsar Bano Muhammad Zafar Khan Rafia Rehman Rahim Jan Sofia Javed Heliyon</i> , Volume 10, Issue 8, Article Number e29417	
Impact Factor: 3.4 Quartile: 1 Citations: 1	
DOI: https://doi.org/10.1016/j.heliyon.2024.e29417	
Assembly of nanoparticles at symmetric coffee stain locations	2024
<i>Imtiaz Ahmad Rahim Jan Hidayat Ullah Khan Shayan Ahmad Khattak Yusra Murad Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , Volume:682, Article Number: 132833	
Impact Factor: 5.2 Quartile: 2 Citations: 7	
DOI: 10.1016/j.colsurfa.2023.132833	
Environmental treatment and remediation using h-BN based smart and hybrid membrane	2022
<i>Zarrar Salahuddin Sarah Farrukh Rahim Jan Aatif Ayoub Arshad Hussain Maxime Pontié Anas Ahmad Muhammad Mubashir Chemosphere</i> , Volume 305, Article Number 135466	
Impact Factor: 8.8 Quartile: 1 Citations: 5	
DOI: 10.1016/j.chemosphere.2022.135466	
Design of Multilayered 2D Nanomaterial Composite Structures for EMI Shielding Analysis	2022
<i>Hafiz Muhammad Sajid Hafsa Afzal Muhammad Irfan Mohsin Saleem Rhim Jan Sofia Javed Muhammad Aftab Akram ACS Omega</i> , Volume 7, Issue 40, Pages 35586-35594	
Impact Factor: 4.1 Quartile: 2 Citations: 12	
DOI: 10.1021/acsomega.2c03186	
Structure – properties relationships of graphene and spinel nickel ferrites based poly(vinylidene fluoride) hybrid polymer nanocomposites for improved dielectric and EMI shielding characteristics	2022
<i>Ibrar Ahmad Ahmad Nawaz Khan Rahim Jan Iftikhar Hussain Gul Materials Research Bulletin</i> , Volume 148, Article Number 111687	
Impact Factor: 5.4 Quartile: 2 Citations: 27	
DOI: 10.1016/j.materresbull.2021.111687	
A flexible piezoresistive strain sensor based on laser scribed graphene oxide on polydimethylsiloxane	2022
<i>Maham Iqra Furqan Anwar Rahim Jan Muhammad Ali Muhammad Scientific Reports</i> , Volume 12, Issue 1, Article Number 4882	
Impact Factor: 4.6 Quartile: 2 Citations: 45	
DOI: 10.1038/s41598-022-08801-0	
Gas barrier properties evaluation for boron nitride nanosheets-polymer (polyethylene-terephthalate) composites	2021
<i>Atif Ayub Sarah Farrukh Rahim Jan Muhammad Azeem Zarrar Salahuddin Arshad Hussain Applied Nanoscience</i> , Vol:11, Pages:91-99	
Impact Factor: 3.869 Quartile: 3 Citations: 10	
DOI: 10.1007/s13204-020-01563-z	
2D nanosheets and composites for EMI shielding analysis	2020
<i>Ramsha Khan Zeeshan Mehmood Khan Hamza Bin Aqeel Sofia Javed Ahmed Shafqat Ibrahim Qazi Muhammad Abdul Basit Rahim Jan Scientific Reports</i> , Volume 10, Article Number 21550	
Impact Factor: 4.380 Quartile: 1 Citations: 21	
DOI: 10.1038/s41598-020-78614-6	
Enhanced Mechanical Properties of Functionalized BN nanosheets-Polymer Composites	2020
<i>M. Umer Farooq Rahim Jan Muhammad Azeem M. Adeel Umer Usman Liaqat Muhammad Aftab Akram Ahmad Nawaz Khan Imtiaz Ahmad Sajjad A. Khan Zeshan A. Umar Journal of Polymer Research</i> , Volume 27, Article Number 310	
Impact Factor: 3.097 Quartile: 2 Citations: 18	
DOI: 10.1007/s10965-020-02286-z	
Imaging, deposition, and self-assembly of CTAB stabilized gold nanostructures	2020
<i>Imtiaz Ahmad Rahim Jan Hidayat Ullah Khan Akhlaq Hussain Sajjad Ahmad Khan SN Applied Sciences</i> , Volume 2, Article Number 1099	
Impact Factor: N/A Citations: 5	
DOI: 10.1007/s42452-020-2888-8	
Graphene-ferrites interaction for enhanced EMI shielding effectiveness of hybrid polymer composites	2020
<i>Sofia Javed Ibrar Ahmed Rahim Jan Ahmad Nawaz Khan Iftikhar Hussain Gul Ramsha Khan Muhammad Aftab Akram Ahmad Shafqat Hammad Mahmood</i>	

Cheema Imtiaz Ahmad

Materials Research Express, Volume 7, Number 1, Article Number 016304

Impact Factor: 1.620 | Quartile: 4 | Citations: 34

DOI: 10.1088/2053-1591/ab62ed

Size-Separation and Self-Assembly of Anisotropic Nanoparticles in a Coffee-Stain Ring

2019

Imtiaz Ahmad Rahim Jan

Nano, Volume: 14, Issue: 12, Article Number: 1950149

Impact Factor: 1.566 | Quartile: 3 | Citations: 6

DOI: 10.1142/S1793292019501492

Nano Gold Shape-Separation Effect Induced by the Motion of a Droplet

2019

Imtiaz Ahmad Hidayat Ullah Khan Rahim Jan Sajjad Ahmad Khan

Surfaces and Interfaces, Volume: 17, Article Number: UNSP 100342

Impact Factor: 3.724 | Quartile: 1 | Citations: 5

DOI: 10.1016/j.surfin.2019.100342

Deposition and patterning of gold nanostructures on various wettable and nonwettable patterned surfaces

2019

Imtiaz Ahmad Rahim Jan Hidayat Ullah Khan Sajjad Ahmad Khan Akhlaq Hussain

Materials Research Express, Volume: 6, Issue: 12, Article Number: 125042

Impact Factor: 1.929 | Quartile: 3 | Citations: 3

DOI: 10.1088/2053-1591/ab56ff

TiO₂@NbSe₂ decorated nanocomposites for efficient visible-light photocatalysis

2019

Sofia Javed Muhammad Aftab Akram Ramsha Khan Adeel Riaz Muhammad Rabeel Rahim Jan

Applied Nanoscience, Vol:9, Pages:1915-1924

Impact Factor: 2.880 | Quartile: 3 | Citations: 12

DOI: 10.1007/s13204-019-01020-6

EMI shielding properties of polymer blends with inclusion of graphene nano platelets

2019

Sofia Javed Muhammad Aftab Akram Hammad M. Cheema Muhammad Fayzan Shakir Ahmad Nawaz Khan Ramsha Khan Asra Tariq Muhammad Azeem

Adeel Riaz Imtiaz Ahmad Rahim Jan Ahmed Shafqat

Results in Physics, Volume 14, Article Number 102365

Impact Factor: 4.019 | Quartile: 1 | Citations: 93

DOI: 10.1016/j.rinp.2019.102365

PS/PANI/MoS₂ Hybrid Polymer Composites with High Dielectric Behavior and Electrical Conductivity for EMI Shielding Effectiveness

2019

Abdul Saboor Saad Mahmood Khalid Rahim Jan Ahmad Nawaz Khan Tanveer Zia Muhammad Umer Farooq Shaista Afridi Muhammad Sadiq Muhammad Arif

Materials, Volume: 12, Issue: 17, Article Number: 2690

Impact Factor: 3.057 | Quartile: 2 | Citations: 30

DOI: 10.3390/ma12172690

Anisotropic gold nanoparticles crystalizes in multifaceted superstructures

2019

Imtiaz Ahmad Hidayat Ullah Khan Rahim Jan Sajjad Ahmad Khan

Materials Research Express, Volume: 6, Issue: 10, Article Number: 105006

Impact Factor: 1.929 | Quartile: 3 | Citations: 12

DOI: 10.1088/2053-1591/ab3540

Self-assembly and wetting properties of gold nanorod-CTAB molecules on HOPG

2019

Floor Derkink Tim Boulogne Pantelis Bampoulis Harold J. W. Zandvliet Hidayat Ullah Khan Imtiaz Ahmad Rahim Jan E. Stefan Kooij

Beilstein Journal of Nanotechnology, Volume 10, Pages 696-705

Impact Factor: 2.612 | Quartile: 2 | Citations: 24

DOI: 10.3762/bjnano.10.69

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

Mechanical, dielectric and EMI shielding response of styrene acrylonitrile, styrene acrylonitrile/polyaniline polymer blends, upon incorporation of few layer graphene at low filler loadings

2018

Experimental and theoretical correlation of reinforcement trends in acrylonitrile butadiene styrene/single-walled carbon nanotubes hybrid composites 2018

Ahmad Nawaz Khan Qaiser Waheed Rahim Jan KHURRAM YAQOOB Zulfiqar Ali Iftikhar Hussain Gul

POLYMER COMPOSITES, Volume: 39 Pages: E902-E908 Supplement: 2 Special Issue: SI

Impact Factor: 2.268 | **Quartile:** 2 | **Citations:** 11

DOI: 10.1002/pc.24321

Evaluating Mechanical Properties of Few Layers MoS₂ Nanosheets-Polymer Composites 2017

Rahim Jan Amir Habib Muhammad Bilal Khan Ahmad Nawaz Khan

Advances in Materials Science and Engineering, Volume 2017, Article ID 3176808, pages:06

Impact Factor: 1.372 | **Quartile:** 3 | **Citations:** 15

DOI: DOI:10.1155/2017/3176808

Estimating EMI shielding effectiveness of graphene-polymer composites at elevated temperatures 2017

Rahim Jan Ahmad Nawaz Khan Imtiaz Ahmad Abdul Saboor

Materials Research Express, Volume 4, Number 8, Article No. 085605

Impact Factor: 1.151 | **Quartile:** 4 | **Citations:** 26

DOI: 10.1088/2053-1591/aa81e9

Step-edge Induced Orientation of Nanorods in Evaporative Self-assembly on HOPG 2017

Imtiaz Ahmad Pantelis Bampoulis Tim Boulogne Harold J.W. Zandvliet Rahim Jan Hidayatullah Khan E. Stefan Kooij Floor Derkink

Colloid and Interface Science Communications, Volume 19, Pages 25-30

Impact Factor: N/A | **Citations:** 7

DOI: <https://doi.org/10.1016/j.colcom.2017.07.001>

Liquid exfoliated graphene smart layer for structural health monitoring of composites 2017

Rahim Jan Muhammad Bilal Khan Muhammad Anas Ali Nasir Saad Nauman Amir Habib Zaffar M Khan

Journal of Intelligent Material Systems and Structures, Volume: 28, Issue: 12, Pages:1565-1574

Impact Factor: 2.211 | **Quartile:** 2 | **Citations:** 19

DOI: 10.1177/1045389X16672729

Flexible, thin films of graphene-polymer composites for EMI shielding 2017

Rahim Jan Muhammad Aftab Akram Amir Habib Imtiaz Ahmad Attaullah Shah Muhammad Sadiq Akhtar Hussain

Materials Research Express, Volume: 4, Number: 3, Article Number: 035605

Impact Factor: 1.151 | **Quartile:** 4 | **Citations:** 65

DOI: 10.1088/2053-1591/Aa6351

Uniaxial Drawing of Graphene-PVA Nanocomposites: Improvement in Mechanical Characteristics via Strain-Induced Exfoliation of Graphene 2016

Rahim Jan Amir Habib Muhammad Aftab Akram Tanveer-ul-Haq Zia Ahmad Nawaz Khan

Nanoscale Research Letters, Volume 11, Article Number: 377

Impact Factor: 2.833 | **Quartile:** 2 | **Citations:** 35

DOI: 10.1186/s11671-016-1595-2

Investigating the reinforcement effect of few layer graphene and multi-walled carbon nanotubes in acrylonitrile-butadiene-styrene 2016

Qaiser Waheed Ahmad Nawaz Khan Rahim Jan

Polymer, Volume 97, Pages 496-503

Impact Factor: 3.684 | **Quartile:** 1 | **Citations:** 44

DOI: 10.1016/j.polymer.2016.05.070

High Aspect Ratio Graphene Nanosheets Cause a Very Low Percolation Threshold for Polymer Nanocomposites 2016

Rahim Jan Amir Habib Hina Yaqub Abbasi

Acta Physica Polonica A, Volume 129, Issue 4, Pages 478-481, Special Issue: SI

Impact Factor: 0.469 | **Quartile:** 4 | **Citations:** 12

DOI: 10.12693/APhysPolA.129.478

Stiff, Strong, Yet Tough Free-Standing Dielectric Films of Graphene Nanosheets-Polyurethane Nanocomposites with Very High Dielectric Constant and Loss 2016

Rahim Jan Amir Habib Iftikhar Hussain Gul
Electronic Materials Letters , Volume: 12, Issue: 1, Pages: 91-99
Impact Factor: 1.790 | **Quartile:** 3 | **Citations:** 15
DOI: 10.1007/s13391-015-5235-2

Dielectric spectroscopy of high aspect ratio graphene-polyurethane nanocomposites 2015

Amir Habib Hina Abbassi Shahid Amir Rahim Jan
Electronic Materials Letters , Volume 11, Issue 2, Pages 225-231
Impact Factor: 2.057 | **Quartile:** 3 | **Citations:** 15
DOI: 10.1007/s13391-014-4265-5

Enhancing the mechanical properties of BN nanosheet-polymer composites by uniaxial drawing 2014

Rahim Jan Peter May Alan P. Bell Amir Habib Umar Khan Jonathan N. Coleman
Nanoscale , Vol.6(9), Pages 4889-4895
Impact Factor: 7.394 | **Quartile:** 1
DOI: 10.1039/c3nr06711d.

Synthesis and electrical characterization of ?carbon particles reinforced epoxy-nanocomposite? in Ku-band 2012

Rahim Jan Muhammad Bilal Khan Zafar Mohammad Khan
Materials Letters , Volume 70, Pages 155-159
Impact Factor: 2.224 | **Quartile:** 1 | **Citations:** 16
DOI: 10.1016/j.matlet.2011.11.083

Conference Proceedings

Fabrication of 2-D Nanosheets of NbSe2 via Liquid Phase Exfoliation and Their Morphological, Structural, and Optical Characterization 2023

Ayesha Jamshed Sofia Javed Rahim Jan Maryam Basit Saqib Ali Sumbal Hakeem Muhammad Arman Liaqat Fatima Jamshed
6th Conference on Emerging Materials and Processes 23, res.country(177.)
Citations: N/A
DOI: <https://doi.org/10.3390/materproc2024017027>