

Zakir Hussain

Professor

School of Chemical & Materials Engineering

Email: zakir.hussain@scme.nust.edu.pk

Contact: 000000000

LinkedIn: <https://www.linkedin.com/in/prof-dr-zakir-hussain-a4994a9/>



About

Dr. Zakir Hussain is working as Professor in the School of Chemical & Materials Engineering. Dr. Zakir Hussain has a PhD in Materials Chemistry. Dr. Zakir Hussain has published 89 research articles & conference papers having a citation count of 1910, carried out 11 projects and filed 2 intellectual property.

Qualifications

PhD in Materials Chemistry Technische Universität Carolo-Wilhelmina Braunschweig , Germany	2000 - 2003
MPhil in Organic Chemistry Quaid-i-Azam University , Pakistan	1998 - 2000
MSc in Chemistry Gomal University , Pakistan	1994 - 1996
BSc in Science University of the Punjab , Pakistan	1991 - 1994

Experience

Professor School of Chemical & Materials Engineering	2019- Present
Professor School of Chemical & Materials Engineering	2015 - 2019
Professor School of Chemical & Materials Engineering	2014 - 2015
Associate Professor School of Chemical & Materials Engineering	2013 - 2014
Senior Scientist SONY Europe , Stuttgart, Germany	2008 - 2013
Project Leader Tetragon Chemie AG , Liechtenstein	2006 - 2008

Awards

DaVinci Innovation Award	2012
DaVinci Innovation Award	2010

Research Projects

National Projects

Development, characterization and performance evaluation of Anti-corrosive coating on MS-A36 for marine applications	2023
Funding Agency: NESCOM	
Amount: PKR 300,000.00	
Status: Approved_inprocess	
Synthesis and characterization of metals NP@CNTs for IR detection	2024
Funding Agency: NESCOM	
Amount: PKR 350,000.00	
Status: Approved_inprocess	
Development of MOF based electrochemical sensor for the detection of pre-diabetes biomarker	2022
Funding Agency: PSF	
Amount: PKR 3,510,000.00	
Status: Approved_inprocess	
Development of Nanomaterial Based Adsorbents to Adsorb Toxic Industrial Chemicals for Electronics Surfaces	2021
Funding Agency: NESCOM	
Amount: PKR 150,000.00	
Status: Approved_inprocess	
Synthesis and Characterization of CNT Thin Films for IR Detection	2021
Funding Agency: NESCOM	
Amount: PKR 300,000.00	
Status: Approved_inprocess	
Development of Zinc Based Metal Organic Frameworks (MOFs) for Adsorption and Catalytic Detoxification of Toxic Industrial Chemicals	2019
Funding Agency: NESCOM	
Amount: PKR 150,000.00	
Status: Completed	
Sustainability Criteria for Assessing Oily Sludge Carbon Based Magnetic Nanocomposite or Nano Silica from Rice Husk for Oilfield Produced Water Treatments	2020
Funding Agency: IsDB-TWAS	
Amount: PKR 1,560,710.00	
Status: Completed	
Development of Metal Organic Frameworks (MOFs) for adsorption and catalytic detoxification of toxic industrial chemicals	2019
Funding Agency: NESCOM	
Amount: PKR 150,000.00	
Status: Approved_inprocess	
Preparation Characterization and Product Development of Poly 1-Lactic Acid / HA Nano Composites	2015
Funding Agency: Higher Education Commission	
Amount: PKR 12,000,000.00	
Status: Completed	
Development of LCs Based Biosensor for the Detection of Environmental Pollutants and Pathogens	2014
Funding Agency: Higher Education Commission	
Amount: PKR 9,390,000.00	
Status: Completed	
Development of metal organic framework (MOFs) based sorbents for hydrogen storage and CO 2 capture applications	2017
Funding Agency: HEC	
Amount: PKR 9,850,000.00	
Status: Completed	

International Projects

Research Articles

Enhanced drug-loading potential through silver and strontium doping in iron oxide nanoparticles for drug delivery applications <i>Syeda Sana Ali Naqvi Waheed Miran Iftikhar Hussain Gul Zakir Hussain Aneela Javed Usman Liaqat</i> <i>Journal of Materials Research</i>, Volume:40, Issue:13, Page:2016-2025 Impact Factor: 2.900 Quartile: 3 DOI: https://doi.org/10.1557/s43578-025-01632-5	2025
Cobalt (II) porphyrin nanoaggregates as sacrificial templates to improve the peroxidase-like activity of light-controlled TiO₂-based nanozymes for colorimetric determination of amikacin <i>Liming Wang Ying Chu Bo Cao Ruizhe Zhang Zakir Hussain Qingyun Liu</i> <i>Talanta</i>, Volume 281, Article Number 126889 Impact Factor: 5.600 Quartile: 1 Citations: 7 DOI: https://doi.org/10.1016/j.talanta.2024.126889	2025
Enhanced dual frequency microwave absorption performance of magnetic-dielectric multi-interface regulated MWCNTS/MnFe₂O₄/Fe₃O₄/Co quaternary nanocomposite <i>Bahroz Rashid Zakir Hussain</i> <i>Journal of Materials Science: Materials in Electronics</i>, Volume 35, Article Number 2234, Impact Factor: 2.8 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1007/s10854-024-14006-0	2024
Cysteine-Grafted Cu MOF/ZnO/PANI Nanocomposite for Nonenzymatic Electrochemical Sensing of Dopamine <i>Mariam Basharat Zakir Hussain Dooa Arif Waheed Miran</i> <i>ACS Omega</i>, Volume:9, Issue:50, Pages 49545-49556 Impact Factor: 3.700 Quartile: 2 Citations: 3 DOI: https://doi.org/10.1021/acsomega.4c07452	2024
Electrophoretic deposition of tea tree oil containing chitosan/gelatin/whitlockite composite coatings for biofilm protection and bone tissue regeneration <i>Sadaf Batool Muhammad Asim Akhtar Zakir Hussain Aldo R. Boccaccini</i> <i>Ceramics International</i>, Volume 50, Issue 13, Part A, Pages 22405-22420 Impact Factor: 5.2 Quartile: 1 Citations: 3 DOI: 10.1016/j.ceramint.2024.03.342	2024
Whitlockite -A study on the effect of reaction parameters on morphology in one-solvent system. <i>Anum Ayub Usman Liaqat Zakir Hussain Waheed Miran</i> <i>Materials Chemistry and Physics</i>, Volume 314, Article Number: 128932 Impact Factor: 4.6 Quartile: 2 Citations: 1 DOI: 10.1016/j.matchemphys.2024.128932	2024
Preparation and physicochemical characterization of whitlockite/ PVA/Gelatin composite for bone tissue regeneration <i>Sadaf Batool Usman Liaqat Zakir Hussain</i> <i>Frontiers in Chemistry</i>, Volume 12 Impact Factor: 5.5 Quartile: 2 Citations: 5 DOI: DOI: 10.3389/fchem.2024.1355545	2024
Chitosan-Based Polymeric Nanoparticles as an Efficient Gene Delivery System to Cross Blood Brain Barrier: In Vitro and In Vivo Evaluations <i>Ishaq N. Khan Shiza Navid Walifa Waqar Deema Hussein Najeeb Ullah Muhammad Umar Aslam Khan Zakir Hussain Aneela Javed</i> <i>Pharmaceuticals</i>, Volume 17(2), Article Number 169 Impact Factor: 4.300 Quartile: 1 Citations: 25 DOI: https://doi.org/10.3390/ph17020169	2024
The effect of pH on the morphological transformation of nanocrystalline hydroxyapatite during wet chemical synthesis <i>Anum Ayub Awan Usman Liaqat Zakir Hussain</i> <i>Journal of Korean Ceramic Society</i>, Pages 1-18 Impact Factor: 2.5 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1007/s43207-023-00324-2	2023
Multiwalled CNTs/copper sulfide hybrids embedded in polyaniline thin films for near-infrared (NIR) photo detecting applications <i>Ramsha Zia Muhammad Talha Masood Zakir Hussain Usman Liaqat Safina Iram Javed Sajid Hussain Zeeshan Adeel Umar</i>	2023

Impact Factor: 2.8 | **Quartile:** 2

DOI: doi.org/10.1007/s10854-023-11035-z

Novel cytotoxicity study of strontium (Sr) doped iron oxide (Fe₃O₄) nanoparticles aided with ibuprofen for drug delivery applications

2023

Imad Ud Din Irum Shahid Khan Itfikhhar Hussain Gul Zakir Hussain Waheed Miran Farhan Javaid Usman Liaqat Naunyn-Schmiedeberg's Archives of Pharmacology, Pages 1-17

Impact Factor: 3.6 | **Quartile:** 2 | **Citations:** 7

DOI: https://doi.org/10.1007/s00210-023-02582-7

Effect of strontium and iron on the structural integrity and drug delivery of Whitlockite

2023

Sadaf Batool Zakir Hussain Mah Rukh Rahman Muhammad Umair Idrees

Open Ceramics, Volume 14, Article Number 100347

Impact Factor: N/A | **Citations:** 1

DOI: 10.1016/j.oceram.2023.100347

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

CO₂ adsorption study of the zeolite imidazolate framework (ZIF-8) and its g-C₃N₄ composites

2023

Arif Ullah Khan Tayyaba Noor Naseem Iqbal Neelam Zaman Zakir Hussain

Journal of Materials Science, Volume 58, Issue 9, Pages 3947-3959

Impact Factor: 4.682 | **Quartile:** 2 | **Citations:** 11

DOI: https://doi.org/10.1007/s10853-023-08253-5

Aptamer-Based Gold Nanoparticles–PDMS Composite Stamps as a Platform for Micro-Contact Printing

2022

Amna Didar Abbasi Zakir Hussain Kun-Lin Yang

Biosensors, Volume 12, Issue 12, Article Number 1067

Impact Factor: 5.743 | **Quartile:** 1 | **Citations:** 2

DOI: https://doi.org/10.3390/bios12121067

Efficient Photocatalytic Nanocomposites of Anatase/Rutile Mixed-Phase Titania with MWCNTs and WC for Visible and UV-A Ranges

2022

Mobeen Haneef Zakir Hussain Zikriya Khan Mohsin Raza

Journal of Cluster Science, Pages 1-10

Impact Factor: 3.447 | **Quartile:** 2 | **Citations:** 4

DOI: https://doi.org/10.1007/s10876-022-02333-3

Solid-state synthesis and process optimization of bone whitlockite

2022

Sadaf Batool Zakir Hussain Usman Liaqat Manzar Sohail

Ceramics International, Article in Press

Impact Factor: 5.2 | **Quartile:** 1 | **Citations:** 8

DOI: https://doi.org/10.1016/j.ceramint.2022.01.267

Ag Functionalized In₂O₃ Derived From MIL-68(In) as an Efficient Electrochemical Glucose Sensor

2022

Dooa Arif Zakir Hussain Amna Didar Abbasi Manzar Sohail

Frontiers in Chemistry, Volume 10, Article Number 906031

Impact Factor: 5.545 | **Quartile:** 2 | **Citations:** 10

DOI: https://doi.org/10.3389/fchem.2022.906031

Synthesis and characterization of PANI/MOF-199/Ag nanocomposite and its potential application as non-enzymatic electrochemical sensing of dopamine

2022

Asia Nisar Muzamil Ahmad Khan Zakir Hussain

Journal of Korean Ceramic Society, Pages 1-11

Impact Factor: 1.674 | **Quartile:** 3 | **Citations:** 15

DOI: https://doi.org/10.1007/s43207-021-00166-w

Studying the effect of nHAP on the mechanical and surface properties of PBS matrix

2021

Mamoon Asif Usman Liaqat Zakir Hussain Muzamil Ahmad Khan Muhammad Arman Liaqat Hasan Ahmed Mussayib Quddusi

Journal of Polymer Research, Volume 28, Article Number: 349

Impact Factor: 3.061 Quartile: 2 Citations: 8 DOI: https://doi.org/10.1007/s10965-021-02711-x	
Preparation of porous ZIF-67 network interconnected by MWCNTs and decorated with Ag nanoparticles for improved non-enzymatic electrochemical glucose sensing. <i>Elizbit Usman Liaqat Zakir Hussain Mutawara Mahmood Baig Muzamil Ahmad Khan Dooa Arif</i> <i>Journal of the Korean Ceramic Society</i> , Pages 1-8 Impact Factor: 2.506 Quartile: 3 Citations: 33 DOI: https://doi.org/10.1007/s43207-021-00132-6	2021
Fabrication of robust poly L-lactic acid/cyclic olefinic copolymer (PLLA/COC) blends: study of physical properties, structure, and cytocompatibility for bone tissue engineering <i>Farzana Nazir Mudassir Iqbal Ahmad Nawaz Khan Muhammad Mazhar Zakir Hussain</i> <i>Journal of Materials Research and Technology</i> , Volume 13, Pages 1732-1751 Impact Factor: 6.267 Quartile: 1 Citations: 30 DOI: https://doi.org/10.1016/j.jmrt.2021.05.073	2021
Fabrication and characterization of carbon-based nanocomposite membranes for packaging application <i>Misbah Iqbal Muhammad Bilal Khan Niazi Zaib Jahan TAHIR AHMED Zakir Hussain Farooq Sher</i> <i>Polymer Bulletin</i> , Pages 1-22 Impact Factor: 2.843 Quartile: 3 Citations: 29 DOI: https://doi.org/10.1007/s00289-021-03763-1	2021
Aptamer Laden Liquid Crystals Biosensing Platform for the Detection of HIV-1 Glycoprotein-120 <i>Amna Didar Abbasi Zakir Hussain Kun-Lin Yang</i> <i>Molecules</i> , Volume 26(10), Article Number 2893 Impact Factor: 4.927 Quartile: 2 Citations: 12 DOI: https://doi.org/10.3390/molecules26102893	2021
Liquid crystal based binding assay for detecting HIV-1 surface glycoprotein <i>Usman Liaqat Amna Didar Abbasi Dooa Arif Zakir Hussain Kun-Lin Yang</i> <i>Frontiers in Chemistry</i> , Volume 9, Article Number 668870 Impact Factor: 5.545 Quartile: 2 Citations: 11 DOI: https://doi.org/10.3389/fchem.2021.668870	2021
Bone whitlockite: synthesis, applications, and future prospects <i>Usman Liaqat Sadaf Batool Bushra Babar Zakir Hussain</i> <i>Journal of the Korean Ceramic Society</i> , Pages 1-18 Impact Factor: 2.506 Quartile: 2 Citations: 23 DOI: https://doi.org/10.1007/s43207-021-00120-w	2021
Biopolymer blended films of poly(butylene succinate)/cyclic olefin copolymer with enhanced mechanical strength for packaging applications <i>Muhammad Arman Liaqat Malik Adeel Umer Sadia Janjua Zakir Hussain Zikriya Khan</i> <i>Journal of Applied Polymer Science</i> , Article Number e50081, Pages 1-6 Impact Factor: 3.057 Quartile: 2 Citations: 15 DOI: https://doi.org/10.1002/app.50081	2021
A Non-enzymatic Electrochemical Sensor for Glucose Detection Based on Ag@TiO₂@ Metal-Organic Framework (ZIF-67) Nanocomposite <i>Dooa Arif Manzar Sohail Muhammad Arman Liaqat Muzamil Ahmad Khan Tayyaba Noor Muzamil Ahmad Khan Zakir Hussain</i> <i>Frontiers in Chemistry</i> , Volume 8, Article Number 573510 Impact Factor: 5.221 Quartile: 2 Citations: 72 DOI: https://doi.org/10.3389/fchem.2020.573510	2020
Synthesis, Characterization and Process Optimization of Bone Whitlockite <i>Manzar Sohail Sadaf Batool Usman Liaqat Sadaf Batool Zakir Hussain</i> <i>Nanomaterials</i> , Volume 10(9), Article Number 1856 Impact Factor: 5.076 Quartile: 1 Citations: 27 DOI: https://doi.org/10.3390/nano10091856	2020
Preparation of PBS/PLLA/HAP Composites by the Solution Casting Method: Mechanical Properties and Biocompatibility <i>Usman Liaqat Zakir Hussain Muzamil Ahmad Khan Muhammad Arman Liaqat Muhammad Zahoor</i> <i>Nanomaterials</i> , Volume 10(9), Article Number 1778	2020

Impact Factor: 5.076 Quartile: 2 Citations: 16 DOI: https://doi.org/10.3390/nano10091778	
MWCNTs/NiS₂ Decorated Ni Foam Based Electrode for High-Performance Supercapacitors <i>Misbah Azad Zakir Hussain Mutawara Mahmood Baig</i> <i>Electrochimica Acta</i> , Volume 345, Article Number 136196 Impact Factor: 6.901 Quartile: 2 Citations: 71 DOI: https://doi.org/10.1016/j.electacta.2020.136196	2020
Structure-properties relationships of novel cyclic olefinic copolymer/poly(L-lactic acid) polymer blends <i>Zakia Riaz Ahmad Nawaz Khan Zakia Riaz Ahmad Nawaz Khan Shah Rukh Abbas Zakir Hussain</i> <i>Journal of Materials Research and Technology</i> , Volume 9, Issue 4, Pages 7172-7179 Impact Factor: 5.039 Quartile: 1 Citations: 4 DOI: https://doi.org/10.1016/j.jmrt.2020.05.024	2020
Effects of Ag doping on compact TiO₂ thin films synthesized via one step sol-gel route and deposited by spin coating technique <i>Muhammad Arman Liaqat Zakir Hussain Zikriya Khan Muhammad Aftab Akram Ahmed Shuja</i> <i>Journal of Materials Science: Materials in Electronics</i> , Volume 31, Pages 7172–7181 Impact Factor: 2.478 Quartile: 3 Citations: 5 DOI: 10.1007/s10854-019-00716-3	2020
In-Vitro and In-Vivo Study of Superabsorbent PVA/Starch/g-C₃N₄/Ag@TiO₂ NPs Hydrogel Membranes for Wound Dressing <i>Erum Pervaiz Arooj Ahmed Muhammad Bilal Khan Niazi Zaib Jahan Tahir Ahmad Arshad Hussain Hussnain Ahmed Janjua Zakir Hussain</i> <i>European Polymer Journal</i> , Volume 130, Article Number 109650 Impact Factor: 4.598 Quartile: 1 Citations: 101 DOI: DOI: 10.1016/j.eurpolymj.2020.109650	2020
Novel Strategy for Synthesis of Al Powder Comprising of Al Nanoflakes Via Ultrasonication of Al Foil <i>Mubeen Hanif KHURRAM YAQOOB Malik Adeel Umer Zakir Hussain</i> <i>Ultrasonics Sonochemistry</i> , Volume 61, Article Number 104838 Impact Factor: 7.491 Quartile: 1 Citations: 6 DOI: https://doi.org/10.1016/j.ultsonch.2019.104838	2020
Adsorption and kinetic study of Cr(VI) on ZIF-8 based composites <i>Javeria Begum Zakir Hussain Tayyaba Noor</i> <i>Materials Research Express</i> , Volume 7, Article Number 015083 Impact Factor: 1.620 Quartile: 4 Citations: 31 DOI: https://doi.org/10.1088/2053-1591/ab6b66	2020
Diospyros lotus-mediated Synthesis of Iron Oxide Nanoparticles and Their Application as a Catalyst in Fenton Reaction <i>Sadaf Batool Zakir Hussain</i> <i>Current Nanoscience</i> , Volume 16, Issue 1, Pages 91-100 Impact Factor: 1.824 Quartile: 4 Citations: 3 DOI: 10.2174/1573413715666191023103729	2020
Bovine Serum Albumin Protein-Based Liquid Crystal Biosensors for Optical Detection of Toxic Heavy Metals in Water <i>Zakir Hussain Noor ul Amin Humaira Masood Siddiqi Yang Kun Lin Nasir Majeed</i> <i>Sensors</i> , Volume 20, Issue 1, Article Number 298 Impact Factor: 3.576 Quartile: 1 Citations: 38 DOI: 10.3390/s20010298	2020
Titania Laden Liquid Crystal Based Sensor as Photocatalyst <i>Nasir Majeed Noor-ul-Amin Farah Qazi Humaira Masood Siddiqi Zakir Hussain</i> <i>Journal of Nanoscience and Nanotechnology</i> , Volume: 19, Issue: 12, Pages: 7673-7678 Impact Factor: 1.093 Quartile: 4 DOI: 10.1166/jnn.2019.16769	2019
Effect of polyhedral oligomeric silsesquioxane nanocage on the crystallization behavior of PEG5k-b-P(MA-POSS) diblock copolymers achieved via atom transfer radical polymerization <i>Asad Ullah Shakir Ullah Nasir Mahmood Syed M. Shah Zakir Hussain Hazrat Hussain</i> <i>Polymer Crystallization</i> , Volume 2, Issue 4, Article Number e10058	2019

Impact Factor: - Citations: 6 DOI: https://doi.org/10.1002/pcr2.10058	
Effect of polyhedral oligomeric silsequioxane nanocage on the crystallization behaviour of PEG5K-b-P(MA-POSS) diblock copolymers achieved via arom transfer radical polymerization <i>Zakir Hussain Asad Ullah Shakir Ullah Nasir Mahmood Syed M. Shah Hazrat Hussain</i> <i>Polymer Crystallization</i> , Volume 2, Issue 4, Article Number e10058, Pages 1-9 Impact Factor: 0 Citations: 6 DOI: 10.1002/pcr2.10058	2019
Electro catalytic study of NiO-MOF/rGO composites for methanol oxidation reaction <i>Tayyaba Noor Neelam Zaman Habib Nasir Naseem Iqbal Zakir Hussain</i> <i>Electrochimica Acta</i> , Volume 307, Pages 1-12 Impact Factor: 6.215 Quartile: 1 Citations: 137 DOI: 10.1016/j.electacta.2019.03.116	2019
Optimizing reaction kinetics of sequential deposition technique for ambient air and solution processed hybrid perovskite thin films <i>Zakir Hussain Zikriya Khan M. Arman Liaqat S. Fahad S. Ahmed</i> <i>Journal of Materials Science: Materials in Electronics</i> , Volume 30, Issue 4, Pages 4250-4258 Impact Factor: 2.220 Quartile: 2 Citations: 5 DOI: 10.1007/s10854-019-00716-3	2019
Green Synthesis of Silver Nanoparticles Using Jurinea dolomiaea and Biological Activities <i>Muhammad Riaz Muhammad Altaf Muhammad Qayyum Khan Saima Manzoor Muhammad Azhar Shekheli Muhammad Ali Shah Syed Zafar Ilyas Zakir Hussain</i> <i>Journal of Nanoscience and Nanotechnology</i> , Volume 18, Issue 12, Pages 8386-8391 Impact Factor: 1.093 Quartile: 4 DOI: 10.1166/jnn.2018.16401	2018
Preparation and Investigation of Ag Nanoparticles/TOPAS Nanocomposie Films for Packaging Applications <i>Hareem Zainab Zakir Hussain Ahmad Nawaz Khan Usman Liaqat Muhammad Bilal Khan Niazi Tahir Ahmed Baig</i> <i>Current Nanoscience</i> , Volume 14, Issue 6, Pages 538-544 Impact Factor: 1.586 Quartile: 3 Citations: 1 DOI: 10.2174/1573413714666180717114523	2018
A Comparative Approach to Graphene Oxide Nanocomposites as Peroxidase Mimetic Catalysts <i>Khazima Muazim Zakir Hussain</i> <i>Nanoscience and Nanotechnology Letters</i> , NULL Impact Factor: N/A DOI: doi:10.1166/nnl.2018.2712	2018
Liquid crystal based optical platform for the detection of Pb2+ ions using NiFe2O4 nanoparticles <i>Saman Zehra Iftikhar Hussain Gul Zakir Hussain</i> <i>Results in Physics</i> , Results in Physics Volume: 9 Pages: 1462-1467 Impact Factor: 3.042 Quartile: 1 Citations: 8 DOI: 10.1016/j.rinp.2018.04.063	2018
Quince seed hydrogel (glucuronoxylan): Evaluation of stimuli responsive sustained release oral drug delivery system and biomedical properties <i>Muhammad Umer Ashraf Muhammad Ajaz Hussain Sajid Bashir Muhammad Tahir Haseeb Zakir Hussain</i> <i>Journal of Drug Delivery Science and Technology</i> , NULL Impact Factor: 2.606 Quartile: 2 Citations: 46 DOI: https://doi.org/10.1016/j.jddst.2018.04.008	2018
Malus domestica Mediated Synthesis of Palladium Nanoparticles and Investigation of Their Catalytic Activity Towards the Suzuki Coupling Reactions <i>Farah Qazi Zakir Hussain Soneela Asghar Ghayoor Abbas Muhammad Riaz</i> <i>Nanoscience and Nanotechnology Letters</i> , NULL Impact Factor: N/A DOI: doi:10.1166/nnl.2018.2633	2018
Acetylation of Linseed Hydrogel: Synthesis, Characterization, Isoconversional Thermal Analysis and Degradation Kinetics <i>Muhammad Tahir Haseeb Muhammad Ajaz Hussain Soon Hong Yuk Muhammad Amin Sajid Bashir Zakir Hussain</i>	2018

Impact Factor: 0.857 | **Quartile:** 3

DOI: NA

Synthesis and characterization of electrodeposited NiO thin film on electrode grade carbon plate for supercapacitor applications

2017

Zakir Hussain Ahmad Nawaz Khan KHURRAM YAQOOB Imran Sohail

Materials Research Express, Volume: 4 Issue: 11 Article Number: 116412

Impact Factor: 1.151 | **Quartile:** 4 | **Citations:** 17

DOI: 10.1088/2053-1591/aa997a

Solution-Processed ZnO-Based Low-Cost CH₃NH₃PbI₃ Solar Cells by Ambient Air, Hole Transport Layer-Free Synthesis

2017

M. Imran Ahmed Zakir Hussain Amir Khalid Amir Habib

Arabian Journal for Science and Engineering, Volume 42, Issue 10, Pages 4317-4325

Impact Factor: 1.092 | **Quartile:** 3 | **Citations:** 1

DOI: 10.1007/s13369-016-2339-4

Recent Trends in Electrochemical Detection of NH₃, H₂S and NO_x Gases

2017

Muzamil Ahmad Khan Farah Qaz Muhammad Umair Idrees Shahid Soomro Saeeda Soomro Zakir Hussain

International Journal of Electrochemical Science, Volume: 12 Issue: 3 Pages: 1711-1733

Impact Factor: 1.369 | **Quartile:** 4 | **Citations:** 48

DOI: 10.20964/2017.03.76

Graphene oxide-A platform towards theranostics

2017

Khazima Muazim Zakir Hussain

Materials Science and Engineering C, Volume 76, Pages 1274-1288

Impact Factor: 5.080 | **Quartile:** 1 | **Citations:** 43

DOI: 10.1016/j.msec.2017.02.121

Chemical functionalization of graphene oxide and its electrochemical potential towards the reduction of triiodide

2017

Syeda Qudsia Muhammad Imran Ahmed Zakir Hussain Shahid Soomro

Journal of Materials Science: Materials in Electronics, Volume: 28 Issue: 9 Pages: 6664-6672

Impact Factor: 2.324 | **Quartile:** 2 | **Citations:** 6

DOI: 10.1007/s10854-017-6358-z

Effect of Polymerization of Aniline on Thermal Stability, Electrical Conductivity and Band Gap of Graphene Oxide/Polyaniline Nanocomposites

2017

Zakir Hussain Asim Riaz Adil Usman Muhammad Faheem Ahmad Nawaz Khan Shahid Soomro

International Journal of Electrochemical Science, Volume 12, Issue 3, Pages 1785-1796

Impact Factor: 1.369 | **Quartile:** 4 | **Citations:** 15

DOI: 10.20964/2017.03.20

Enhanced mechanical, thermal and antimicrobial properties of poly(vinyl alcohol)/graphene oxide/starch/silver nanocomposites films

2016

Adil Usman Zakir Hussain Asim Riaz Ahmad Nawaz Khan

Carbohydrate Polymers, Volume 153, Pages 592-599

Impact Factor: 4.811 | **Quartile:** 1 | **Citations:** 193

DOI: 10.1016/j.carbpol.2016.08.026

Liquid crystals based sensing platform-technological aspects

2016

Zakir Hussain Farah Qazi Imran Ahmed Adil Usman Asim Riaz Amna Didar Abbasi

Biosensors and Bioelectronics, Volume 85, Pages 110-127

Impact Factor: 7.780 | **Quartile:** 1 | **Citations:** 77

DOI: doi:10.1016/j.bios.2016.04.069

Effects of ambient air processing on morphology and photoconductivity of CH₃NH₃PbI₃

2016

Zakir Hussain Muhammad Imran Ahmed Hammad Tanveer Butt Iftikhar Ahmed Shahid Amir Habib

Journal of Materials Science: Materials in Electronics, Volume: 27 Issue: 11 Pages: 12028-12035

Impact Factor: 2.019 | **Quartile:** 2 | **Citations:** 6

DOI: 10.1007/s10854-016-5351-2

Ambient Air Synthesis of Hole Transport Layer Free CH₃NH₃PbI₃ Solar Cells

2016

Muhammad Imran Ahmed Amir Habib Zakir Hussain Amir Khalid

Impact Factor: -

DOI: <https://doi.org/10.4028/www.scientific.net/MSF.864.149>

Liquid crystals as optical amplifiers for bacterial detection

2016

Christian Zafiu Zakir Hussain Seta Kupcu Akira Masutani Pinar Kilickiran Eva-Kathrin Sinner

Biosensors and Bioelectronics , Volume: 80 Pages: 161-170

Impact Factor: 7.780 | **Quartile:** 1 | **Citations:** 33

DOI: 10.1016/j.bios.2016.01.017

Low resistivity ZnO-GO electron transport layer based CH₃NH₃PbI₃ solar cells

2016

Syed Saad Javaid Muhammad Imran Ahmad Zakir Hussain Muhammad Mujahid Ahmad Nawaz Khan Amir Habib

AIP Advances , Volume:6, Issue:6, Article Number:065303

Impact Factor: 1.568 | **Quartile:** 3 | **Citations:** 31

DOI: 10.1063/1.4953397

Absorption Enhancement in CH₃NH₃PbI₃ Solar Cell using TiO₂/ MoS₂ Nanocomposite Electron Selective Contact

2016

Zakir Hussain Muhammad Imran Ahmed Amir Khalid Hafiz Muhammad Noman Amin Amir Habib

Materials Research Express , Volume 3, Issue 4, Article Number: 045022

Impact Factor: 1.068 | **Quartile:** 3 | **Citations:** 22

DOI: 10.1088/2053-1591/3/4/045022

Synthesis of 4, 4'-Stilbene Dicarboxylic Acid and Aniline Modified Graphene Oxide and Its Electrochemical Performance for Supercapacitors

2016

Asim Riaz Adil Usman Zakir Hussain

International Journal of Electrochemical Science , Volume 11, Issue 2, Pages 1099-1110

Impact Factor: 1.469 | **Quartile:** 3

DOI: <http://www.electrochemsci.org/papers/vol11/110201099.pdf>

Water soluble polyhedral oligomeric silsesquioxane based amphiphilic hybrid polymers: Synthesis, self-assembly, and applications

2016

Asad Ullah Shakir Ullah Gul Shahzada Khan Syed Mujtaba Shah Zakir Hussain Saz Mohammad Muhammad Siddiq Hazrat Hussain

European Polymer Journal , Volume 75, Pages 67-92

Impact Factor: 3.531 | **Quartile:** 1 | **Citations:** 34

DOI: doi:10.1016/j.eurpolymj.2015.11.023

Advances in biogenic synthesis of palladium nanoparticles

2016

Farah Qazi Zakir Hussain M. Nawaz Tahir

RSC Advances , Volume: 6 Issue: 65 Pages: 60277-60286

Impact Factor: 3.108 | **Quartile:** 2 | **Citations:** 44

DOI: 10.1039/c6ra11695g

Covalently functionalized Graphene Oxide-characterization and its electrochemical performance

2015

Safina Iram Javed Zakir Hussain

International Journal of Electrochemical Science , Volume 10, Issue 11, Pages 9475-9487

Impact Factor: 1.692 | **Quartile:** 3

DOI: <http://www.electrochemsci.org/papers/vol10/101109475.pdf>

Liquid crystal based sensors monitoring lipase activity: A new rapid and sensitive method for cytotoxicity assays

2014

Zakir Hussain Christian Zafiu Seta Kuptu Lucineia Pivetta Nadine Hollfelder Akira Masutani Pinar Kilickiran Eva-Kathrin Sinner

Biosensors and Bioelectronics , Volume 56, Pages 210-216

Impact Factor: 6.409 | **Quartile:** 1 | **Citations:** 42

DOI: 10.1016/j.bios.2013.12.055

Investigation of reactive acrylic monomers for their effect on the temperature range and operating voltage of polymer-stabilised optically isotropic liquid crystal blue phases

2012

Zakir Hussain David Danner Akira Masutani Nadine Hollfelder Frank Pleis Gabriele Nelles Pinar Kilickiran

Liquid Crystals , Volume 39, Issue 11, Pages 1345-1357

Impact Factor: 1.959 | **Quartile:** 2 | **Citations:** 11

DOI: 10.1080/02678292.2012.716862

Synthesis of 2,6-disubstituted tetrahydroazulene derivatives

2012

Zakir Hussain Henning Hopf Khurshid Ayub S. Holger Eichhorn

Perhydroazulene-based liquid-crystalline materials with smectic phases

2012

Zakir Hussain Henning Hopf S. Holger Eichhorn

Beilstein Journal of Organic Chemistry, Volume 8, Pages 403-410

Impact Factor: 2.801 | Quartile: 2 | Citations: 3

DOI: 10.3762/bjoc.8.44

Effect of long flexible chain reactive monomers on the operating voltage of optically isotropic blue phase liquid crystals

2012

Zakir Hussain David Danner Akira Masutani Frank Pleis Nadine Hollfelder Gabriele Nelles Pinar Kilickiran

Liquid Crystals, Volume: 39 Issue: 2 Pages: 221-230

Impact Factor: 1.959 | Quartile: 2 | Citations: 6

DOI: 10.1080/02678292.2011.631044

Ultra fast polymer network blue phase liquid crystals

2011

Zakir Hussain Akira Masutani David Danner Frank Pleis Nadine Hollfelder Gabriele Nelles Pinar Kilickiran

Journal of Applied Physics, Volume 109, Issue 11

Impact Factor: 2.168 | Quartile: 2 | Citations: 13

DOI: 10.1063/1.3592268

Perhydroazulenes – A New Class of Liquid Crystalline Materials

2011

Henning Hopf Zakir Hussain Rajeev S. Menon Vitaly Raev Peter G. Jones Ludwig M. Pohl

Synlett, Issue 9, Pages 1273-1276

Impact Factor: 2.655 | Quartile: 2 | Citations: 6

DOI: 10.1055/s-0030-1260551

FTIR Study of the Photoinduced Processes of Plant Phytochrome PhyA using Isotope-Labeled Bilins and Density Functional Theory Calculations

2008

Pascale Schwinte Harald Foerstendorf Zakir Hussain Wolfgang Gaertner Maria?Andrea Mroginski Peter Hildebrandt

Biophysical journal, Volume 95, Issue 3, Pages 1256-1267

Impact Factor: 4.683 | Quartile: 1 | Citations: 33

DOI: 10.1529/biophysj.108.131441

Synthesis of Selectively ¹³C Labelled Bilin Compounds

2007

Y Makhynya Zakir Hussain T Bauschlicher P Schwinte F Siebert W Gärtner

European journal of organic chemistry, Issue 8, Pages 1287-1293

Impact Factor: 2.914 | Quartile: 1 | Citations: 17

DOI: 10.1002/ejoc.200600677

Synthesis and Stereochemical Aspects of 2,6-Disubstituted Perhydroazulenes – Core Units for a New Class of Liquid Crystalline Materials

2006

Zakir Hussain Henning Hopf Ludwig Pohl Thomas Oeser Axel K. Fischer Peter G. Jones

European journal of organic chemistry, Issue 24 Pages 5555-5569

Impact Factor: 2.769 | Quartile: 2 | Citations: 12

DOI: 10.1002/ejoc.200500733

2 Hydroxy 1,2,3,6 tetrahydro azulene 6 carboxylic Acid Ethyl Ester A Novel Precursor for a New Class of Liquid Crystalline Materials

2006

Zakir Hussain Henning Hopf Ludwig Pohl Toni Rantanen

Synthetic Communications, Volume: 36 Issue: 5 Pages: 559-571

Impact Factor: 1.001 | Quartile: 3 | Citations: 4

DOI: 10.1080/00397910500406393

Synthesis and antibacterial activity of substituted flavones, 4-thioflavones and 4-iminoflavones

2006

Ehsan Ullah Mughal Muhammad Ayaz Zakir Hussain Aurangzeb Hasan Amina Sadiq Muhammad Riaz Samreen Hussain M. Iqbal Choudhary

Bioorganic & Medicinal Chemistry, Volume 14, Issue 14, Pages 4704-4711

Impact Factor: 2.624 | Quartile: 2 | Citations: 83

DOI: 10.1016/j.bmc.2006.03.031

Separation of the Geometric Isomers of 4-Octyl-1,1a,2,3,4,5,6,6a-OctahydroCyclopropa[f]Indene-1-Carboxylic Acid Ethyl Ester and their Positional Isomers by Reversed-Phase HPLC

2006

Zakir Hussain

<i>Chromatographia</i> , Volume 63, Issue 7-8, Pages 327-330	
Impact Factor: 1.171 Quartile: 3 Citations: 2	
DOI: 10.1365/s10337-006-0776-z	
(RS) 6 Ethyl 2 carboxy 1,2,3,4 tetrahydro azulene 6 carboxylate	2005
<i>Zakir Hussain Henning Hopf T. Oeser</i>	
<i>Acta Crystallographica Section C-Structural Chemistry</i> , C61, Pages o652-o653	
Impact Factor: 0.777 Quartile: 3 Citations: 1	
DOI: 10.1107/S0108270105029744	
A combined theoretical and experimental approach to 2,3,2,3 Tetrahydro 1H,1 H [2,2]biindenyl	2005
<i>Zakir Hussain Henning Hopf T. Oeser J. Grunenberg</i>	
<i>Letters in organic chemistry</i> , Volume: 2 Issue: 6 Pages: 539-543	
Impact Factor: 1.122 Quartile: 3 Citations: 2	
DOI: 10.2174/1570178054640723	
rac-(1R, 1aR, 4S, 6aS)-Ethyl 4-carboxy-1,1a, 2,3,4,5,6,6a-octahydrocyclopropa[f]-indene-1-carboxylate	2005
<i>Peter G. Jones Henning Hopf Zakir Hussain</i>	
<i>Acta Crystallographica Section E: Structure Reports Online</i> , Volume 61, Pages O3034-O3035, Part:	
Impact Factor: 0.581 Quartile: 4 Citations: 2	
DOI: 10.1107/S1600536805026565	
Fluorine-Substituted Tetraphenylethene Systems	2005
<i>Zakir Hussain Henning Hopf T. Oeser</i>	
<i>Letters in organic chemistry</i> , Volume 2, Issue 6, Pages 518-520	
Impact Factor: 1.122 Quartile: 3 Citations: 3	
DOI: 10.2174/1570178054640886	
Ethyl 1,3 dibromoazulene 6 carboxylate	2005
<i>Zakir Hussain Henning Hopf T. Oeser</i>	
<i>ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS</i> , Volume 61, Pages O478-O479, Part: 2	
Impact Factor: 0 Citations: 2	
DOI: 10.1107/S1600536805001972	
The Effect of Medicinal Plants of Islamabad and Murree Region of Pakistan on Insulin Secretion from INS-1 Cells	2004
<i>Zakir Hussain Abdul Waheed Rizwana Aleem Qureshi Dadu Khan Burdi Eugen J. Verspohl Naeema Khan Mashooda Hasan</i>	
<i>Phytotherapy Research</i> , Volume 18, Issue 1, Pages 73-77	
Impact Factor: 0.975 Quartile: 3 Citations: 101	
DOI: 10.1002/ptr.1372	

Book Chapters

In Vitro and In Vivo Studies of Bioactive Glasses	2022
<i>Sadaf Batool Zakir Hussain Usman Liaqat</i>	
In: <i>Book on Bioactive Glasses and Glass-Ceramics: Fundamentals and Applications</i> , Chapter 17, Pages 397-429	
Citations: 5	
DOI: 10.1002/9781119724193	
Algal Polysaccharides, Novel Application, and Outlook	2017
<i>Adil Usman Sundas Khalid Atif Usman Yanmei Wang Adil Usman Sundas Khalid Atif Usman Yanmei Wang Zakir Hussain</i>	
In: <i>Book on Algae Based Polymers, Blends, and Composites</i> , Chapter 5, Pages 115-153	
Citations: 117	
DOI: https://doi.org/10.1016/B978-0-12-812360-7.00005-7	

Intellectual Property

Copyrights

Patents

Design methodology and Fabrication of Bi-functional layered Fibre-reinforced Composite supercapacitor (BL-FCSC)	2024
Status: Filed	
Solid State Method for the synthesis and optimization of bone whitlickite	2021
Status: Filed	

Industrial Designs

Trademarks