

# Usman Liaqat

Associate Professor  
School of Chemical & Materials Engineering

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## About

Dr. Usman Liaqat is working as Associate Professor in the School of Chemical & Materials Engineering. Dr. Usman Liaqat has a PhD in Biomaterials. Dr. Usman Liaqat has published 51 research articles & conference papers having a citation count of 742, carried out 15 projects and filed 1 intellectual property.

## Qualifications

<b>PhD in Biomaterials</b> Yonsei University , Korea	2012 - 2017
<b>BS in Metallurgy And Materials Science</b> University of the Punjab , Pakistan	2005 - 2009

## Experience

<b>Associate Professor</b> School of Chemical & Materials Engineering	2023- Present
<b>Assistant Professor</b> School of Chemical & Materials Engineering	2020 - 2023
<b>Assistant Professor</b> School of Chemical & Materials Engineering	2017 - 2020
<b>Assistant Professor</b> School of Chemical & Materials Engineering	2017 - 2017
<b>R&amp;D Officer</b> Jawwad & Waqqas Pvt. Ltd. , 175 - S Quaid-i-Azam Industrial Estate Kotlakhpat, Township, Lahore, Pakistan	2009 - 2012

## Awards

## Professional Memberships

<b>TMS</b>	Since 2019
<b>PEC</b>	Since 2017
<b>ASM</b>	Since 2019
<b>AIST</b>	Since 2019
<b>ACERS</b>	Since 2019

## Research Projects

<b>National Projects</b>	
<b>4th ASEAN-Pakistan Conference on Materials Science (APCoMS 2025)</b> Funding Agency: ASEAN Pakistan Collaboration Fund Amount: PKR 24,780,568.00 Status: Approved_inprocess	2025
<b>Technology Development for Local Fabrication of Effective Hemodialysis Membranes</b> Funding Agency: Higher Education Commission of Pakistan Amount: PKR 12,051,000.00 Status: Approved_inprocess	2025

<b>Two-Dimensional Transition Metal-Boride (MBenes) for Electrochemical Sensing of Hepcidin: A Biomarker of Iron-Related Disorders—An Experimental and DFT Study</b> <b>Funding Agency:</b> Pakistan Academy of Sciences <b>Amount:</b> PKR 4,000,000.00 <b>Status:</b> Approved_inprocess	2025
<b>Mobility Project under Erasmus+ KA171 with Bursa Technical University</b> <b>Funding Agency:</b> Erasmus <b>Amount:</b> PKR N/A <b>Status:</b> Approved_inprocess	2025
<b>Establishment of Centre of Research in Surface Engineering (CoRISE), NUST, Islamabad</b> <b>Funding Agency:</b> Ministry of Science and Technology <b>Amount:</b> PKR 1,271,219,000.00 <b>Status:</b> Approved_inprocess	2024
<b>Multi-wall CNTs Composites for High Strength composites (Vessels)</b> <b>Funding Agency:</b> NESCOM <b>Amount:</b> PKR 580,000.00 <b>Status:</b> Approved_inprocess	2023
<b>Development of bioelectrochemical system platform for rapid metabolic monitoring of bacteria for industrial applications</b> <b>Funding Agency:</b> Pakistan Science Foundation <b>Amount:</b> PKR 6,950,000.00 <b>Status:</b> Approved_inprocess	
<b>Technology Development for Effective Fabrication and Reuse of hemodialysis Membranes</b> <b>Funding Agency:</b> HEC-industry <b>Amount:</b> PKR 13,440,000.00 <b>Status:</b> Approved_inprocess	
<b>Enhancing export potential of locally developed implants by designing and developing hybrid coated micro porous titanium based implant materials capable of reducing/overcoming stress shielding and aseptic loosening in orthopedic implants</b> <b>Funding Agency:</b> PSF <b>Amount:</b> PKR 13,596,000.00 <b>Status:</b> Completed	2022
<b>Fabrication of Glucose Sensor Based on Metal Organic Frameworks Interconnected by CNTs and Decorated with Metallic Nanoparticles</b> <b>Funding Agency:</b> Pakistan Academy of Sciences <b>Amount:</b> PKR 3,000,000.00 <b>Status:</b> Completed	2021
<b>Development of MOF based electrochemical sensor for the detection of pre-diabetes biomarker</b> <b>Funding Agency:</b> PSF <b>Amount:</b> PKR 3,510,000.00 <b>Status:</b> Approved_inprocess	2022
<b>Antibacterial Coating on Polymeric Hospital Utilities Using Silver (Ag) Nanoparticles Coatings</b> <b>Funding Agency:</b> NESCOM <b>Amount:</b> PKR 150,000.00 <b>Status:</b> Completed	2021
<b>Biodegradable Metallic Materials Strengthened Poly-Lactic Acid (PLA) Composites through Interfacial Properties for Osteosynthesis Implantation</b> <b>Funding Agency:</b> HEC <b>Amount:</b> PKR 492,000.00 <b>Status:</b> Completed	2018
<b>Surface modification of polymer surface by laser ablation for culture of mammalian cells.</b> <b>Funding Agency:</b> HEC <b>Amount:</b> PKR 495,000.00 <b>Status:</b> Completed	2017

## International Projects

Industry Projects

National Projects

Testing Thermal Efficiency of Gas Storage Water Geyser	2024
Client: Hotwell industries	
Amount: PKR 50,000.00	
Status: Completed	

International Projects

Research Articles

Rapid elemental imaging of copper-bearing critical ores using laser-induced breakdown spectroscopy coupled with PCA and PLS-DA	2026
Amir Fayyaz Muhammad Waqas Haroon Asghar Rizwan Ahmed Usman Liaqat Kashif Naseem Muhammad Aslam Baig	
Talanta , Volume:296, Article Number 128463	
Impact Factor: 6.100   Quartile: 1	
DOI: <a href="https://doi.org/10.1016/j.talanta.2025.128463">https://doi.org/10.1016/j.talanta.2025.128463</a>	
Enhanced drug-loading potential through silver and strontium doping in iron oxide nanoparticles for drug delivery applications	2025
Syeda Sana Ali Naqvi Waheed Miran Ittikhar Hussain Gul Zakir Hussain Aneela Javed Usman Liaqat	
Journal of Materials Research , Volume:40, Issue:13, Page:2016-2025	
Impact Factor: 2.900   Quartile: 3	
DOI: <a href="https://doi.org/10.1557/s43578-025-01632-5">https://doi.org/10.1557/s43578-025-01632-5</a>	
Study of shape of zinc oxide nanoparticles on the in-vitro and in-vivo performance of polymeric hydrogels for wound dressing	2025
Hizbullah Malik Fatima Amir Zaib Jahan Usman Liaqat Saadia Andleeb Sulalit Bandyopadhyay Muhammad Bilal Khan Niazi	
International Journal of Pharmaceutics , Volume:674, Article Number 125482	
Impact Factor: 5.200   Quartile: 1   Citations: 1	
DOI: <a href="https://doi.org/10.1016/j.ijpharm.2025.125482">https://doi.org/10.1016/j.ijpharm.2025.125482</a>	
Impact of polypyrrole/MXene modified anode on bioelectricity generation in microbial fuel cells	2025
Fareeha Batool Waheed Miran Marghoob Ahmed Syed Rizwan Hussain Osama Naeem Hamza Zaheer Usman Liaqat	
Journal of Applied Electrochemistry , Pages 1-11	
Impact Factor: 2.400   Quartile: 3	
DOI: <a href="https://doi.org/10.1007/s10800-025-02275-4">10.1007/s10800-025-02275-4</a>	
Analytical Techniques for Detecting Rare Earth Elements in Geological Ores: Laser-Induced Breakdown Spectroscopy (LIBS), MFA-LIBS, Thermal LIBS, Laser Ablation Time-of-Flight Mass Spectrometry, Energy-Dispersive X-ray Spectroscopy, Energy-Dispersive X-ray Fluorescence Spectrometer, and Inductively Coupled Plasma Optical Emission Spectroscopy	2024
Amir Fayyaz Muhammad Aslam Baig Muhammad Waqas Usman Liaqat	
Minerals , Volume 14(10), Article Number 1004	
Impact Factor: 2.200   Quartile: 2   Citations: 6	
DOI: <a href="https://doi.org/10.3390/min14101004">https://doi.org/10.3390/min14101004</a>	
BMSCs-laden mechanically reinforced bioactive sodium alginate composite hydrogel microspheres for minimally invasive bone repair	2024
Shengjie Jiang Hua Jing Yu Zhuang Jinjie Cui Zeyu Fu Dejian Li Cancan Zhao Usman Liaqat Kaili Lin	
Carbohydrate Polymers , Volume: 332, Article Number: 121933	
Impact Factor: 11.2   Quartile: 1   Citations: 33	
DOI: <a href="https://doi.org/10.1016/j.carbpol.2024.121933">10.1016/j.carbpol.2024.121933</a>	
Fe-MOF as a novel saturable-absorber for pulse operation in erbium-doped fiber lasers	2024
Hafsa Hameed Haroon Asghar Usman Liaqat Muhammad Sohail Rizwan Ahmed Zeshan Adeel Umer Muhammad Aslam Baig	
Optical Fiber Technology , Volume:84, Article Number:103771	
Impact Factor: 2.7   Quartile: 2   Citations: 14	
DOI: <a href="https://doi.org/10.1016/j.yofte.2024.103771">10.1016/j.yofte.2024.103771</a>	
An electrochemical sensor based on copper oxide nanoparticles loaded on a mesoporous MCM-41 for non-enzymatic detection of glucose	2024
Zohaa Dooa Arif Muneeb Hassan Muhammad Abdullah Waheed Miran Muhammad Ahsan Nasir Sadaf Batool Muhammad Aslam Baig Usman Liaqat	
Ceramics International , Volume: 50, Issue: 7, Part B, Pages: 12614-12620	

<b>Impact Factor: 5.2   Quartile: 1   Citations: 19</b> <b>DOI: 10.1016/j.ceramint.2024.01.171</b>	
<b>Whitlockite -A study on the effect of reaction parameters on morphology in one-solvent system.</b> <i>Anum Ayub Usman Liaqat Zakir Hussain Waheed Miran</i> <i>Materials Chemistry and Physics</i> , Volume 314, Article Number: 128932 <b>Impact Factor: 4.6   Quartile: 2   Citations: 1</b> <b>DOI: 10.1016/j.matchemphys.2024.128932</b>	2024
<b>Preparation and physicochemical characterization of whitlockite/ PVA/Gelatin composite for bone tissue regeneration</b> <i>Sadaf Batool Usman Liaqat Zakir Hussain</i> <i>Frontiers in Chemistry</i> , Volume 12 <b>Impact Factor: 5.5   Quartile: 2   Citations: 5</b> <b>DOI: DOI: 10.3389/fchem.2024.1355545</b>	2024
<b>Promoting vascularized bone regeneration via strontium-incorporated hydroxyapatite bioceramic</b> <i>Usman Liaqat Yu Zhuang Angi Liu Shengjie Jiang Kaili Lin Wenjun Sun Changyong Yuan</i> <i>Materials &amp; Design</i> , Volume 234, Article Number 112313 <b>Impact Factor: 8.4   Quartile: 1   Citations: 42</b> <b>DOI: https://doi.org/10.1016/j.matdes.2023.112313</b>	2023
<b>The effect of pH on the morphological transformation of nanocrystalline hydroxyapatite during wet chemical synthesis</b> <i>Anum Ayub Awan Usman Liaqat Zakir Hussain</i> <i>Journal of Korean Ceramic Society</i> , Pages 1-18 <b>Impact Factor: 2.5   Quartile: 1   Citations: 2</b> <b>DOI: https://doi.org/10.1007/s43207-023-00324-2</b>	2023
<b>Multiwalled CNTs/copper sulfide hybrids embedded in polyaniline thin films for near-infrared (NIR) photo detecting applications</b> <i>Ramsha Zia Muhammad Talha Masood Zakir Hussain Usman Liaqat Safina Iram Javed Sajid Hussain Zeeshan Adeel Umar</i> <i>Journal of Materials Science: Materials in Electronics</i> , Volume 34, Issue 22, Volume 34, Article Number 1622 <b>Impact Factor: 2.8   Quartile: 2</b> <b>DOI: doi.org/10.1007/s10854-023-11035-z</b>	2023
<b>Novel cytotoxicity study of strontium (Sr) doped iron oxide (Fe<sub>3</sub>O<sub>4</sub>) nanoparticles aided with ibuprofen for drug delivery applications</b> <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 <b>Impact Factor: 3.6   Quartile: 2   Citations: 7</b> <b>DOI: https://doi.org/10.1007/s00210-023-02582-7</b>	2023
<b>Enhanced visible and IR light-sensing performance of photoconductive VO<sub>2</sub> (M1) nanorods thin film</b> <i>Zeshan Adeel Umer Rizwan Ahmed Umer Farooq Haroon Asghar Usman Liaqat Muhammad Aslam Baig</i> <i>Photonics and Nanostructures - Fundamentals and Applications</i> , Volume 55, Article Number 101149 <b>Impact Factor: 3.064   Quartile: 2   Citations: 2</b> <b>DOI: https://doi.org/10.1016/j.photonics.2023.101149</b>	2023
<b>Analysis of Rare Earth Ores Using Laser-Induced Breakdown Spectroscopy and Laser Ablation Time-of-Flight Mass Spectrometry</b> <i>Amir Fayyaz Raheel Ali Muhammad Waqas Usman Liaqat Rizwan Ahmed Zeshan Adeel Umer Muhammad Aslam Baig</i> <i>Minerals</i> , Volume 13, Issue 6, Article Number 787 <b>Impact Factor: 2.5   Quartile: 2   Citations: 13</b> <b>DOI: https://doi.org/10.3390/min13060787</b>	2023
<b>Vanillin cross-linked hydrogel membranes interfacial reinforced by carbon nitride nanosheets for enhanced antibacterial activity and mechanical properties</b> <i>Umer Shahzad malik Qixiang Duan Muhammad Bilal Khan Niazi Zaib Jahan Usman Liaqat Farqooq Sher Yanchang Gan Honghao Hou</i> <i>Chinese Chemical Letters</i> , Volume 34, Issue 4, ID:108071 <b>Impact Factor: 8.455   Quartile: 1   Citations: 24</b> <b>DOI: https://doi.org/10.1016/j.ccllet.2022.108071</b>	2023
<b>A Comparative Study of Gelatin/HPMC/HA and Gel/HPMC/TCP Nanocomposites for Bone Tissue Regeneration</b>	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>

#### **A Novel Method For The Production Of Titanium Foams To Reduce Stress Shielding In Implants**

2023

KHURRAM YAQOOB Izza Amjad Muhammad Awais Munir Awan Muhammad Zahoor Usman Liaqat Muhammad Kashif  
*ACS Omega*, Volume 8, Issue 2, Pages 1876-1884

**Impact Factor:** 4.132 | **Quartile:** 2 | **Citations:** 15

**DOI:** <https://doi.org/10.1021/acsomega.2c02340>

#### **Combination of laser-induced breakdown spectroscopy, and time-of-flight mass spectrometry for the quantification of CoCrFeNiMo high entropy alloys**

2022

Usman Liaqat KHURRAM YAQOOB Amir Fayyaz Rizwan Ahmed Zeshan A. Umar M. Aslam Baig  
*Spectrochimica Acta - Part B Atomic Spectroscopy*, Volume 198, Article Number 106562

**Impact Factor:** 3.662 | **Quartile:** 1 | **Citations:** 14

**DOI:** <https://doi.org/10.1016/j.sab.2022.106562>

#### **VO2 thin film based highly responsive and fast VIS/IR photodetector**

2022

Usman Liaqat Z.A. Umar R. Ahmed H. Asghar A. Fayyaz M.A. Baig  
*Materials Chemistry and Physics*, Volume 290, Article Number 126655

**Impact Factor:** 4.6 | **Quartile:** 2 | **Citations:** 16

**DOI:** <https://doi.org/10.1016/j.matchemphys.2022.126655>

#### **Near room temperature, SMT and visible photo-response in pulsed laser deposited VO2 (M1) thin films**

2022

Usman Liaqat Nasar Ahmed Rashad Mahmood Zeshan Adeel Umer Muhammad Anwar ul Haq Rizwan Ahmed Pervaiz Ahmad Syed Raza Ali Raza  
Muhammad Aslam Baig

*Physica B: Condensed Matter*, Volume 635, Article Number 413841

**Impact Factor:** 2.436 | **Quartile:** 3 | **Citations:** 10

**DOI:** <https://doi.org/10.1016/j.physb.2022.413841>

#### **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>

#### **The role of nanoparticles concentration in the emission intensity enhancement of the laser-produced aluminum plasma.**

2022

Usman Liaqat S. Jamil N. Ahmed R. Ahmed Z.A. Umar M.A. Baig  
*Physica B: Condensed Matter*, Volume 627, Article Number 413620

**Impact Factor:** 2.436 | **Quartile:** 3 | **Citations:** 7

**DOI:** <https://doi.org/10.1016/j.physb.2021.413620>

#### **Synthesis and Investigation of Electrical Properties of Strontium Metal-Doped Hexaferrite Nanoparticles**

2022

Hina Waris Usman Liaqat Iftikhar Hussain Gul Muhammad Irfan  
*Journal of Superconductivity and Novel Magnetism*, Volume 35, Pages 235-241

**Impact Factor:** 1.8 | **Quartile:** 4

**DOI:** <https://doi.org/10.1007/s10948-021-06051-1>

#### **Determination of Micronutrients and Toxic Elements in Moringa Oleifera Leaves by Calibration Free Laser-Induced Breakdown Spectroscopy (LIBS)**

2021

Usman Liaqat Zeshan Adeel Umar Rizwan Ahmed Rinda Hedwig M. Ramli M. A. Marpaung K. H. Kurniawan M. Pardede Muhammad Aslam Baig  
*Analytical Letters*, Pages 1-15

**Impact Factor:** 2.267 | **Quartile:** 3 | **Citations:** 15

**DOI:** <https://doi.org/10.1080/00032719.2021.1966794>

#### **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>

<b>Preparation of porous ZIF-67 network interconnected by MWCNTs and decorated with Ag nanoparticles for improved non-enzymatic electrochemical glucose sensing.</b>  <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 <b>Impact Factor:</b> 2.506   <b>Quartile:</b> 3   <b>Citations:</b> 33 <b>DOI:</b> <a href="https://doi.org/10.1007/s43207-021-00132-6">https://doi.org/10.1007/s43207-021-00132-6</a>	2021
<b>Liquid crystal based binding assay for detecting HIV-1 surface glycoprotein</b>  <i>Usman Liaqat Amna Didar Abbasi Dooa Arif Zakir Hussain Kun-Lin Yang</i> <i>Frontiers in Chemistry</i> , Volume 9, Article Number 668870 <b>Impact Factor:</b> 5.545   <b>Quartile:</b> 2   <b>Citations:</b> 11 <b>DOI:</b> <a href="https://doi.org/10.3389/fchem.2021.668870">https://doi.org/10.3389/fchem.2021.668870</a>	2021
<b>Bone whitlockite: synthesis, applications, and future prospects</b>  <i>Usman Liaqat Sadaf Batool Bushra Babar Zakir Hussain</i> <i>Journal of the Korean Ceramic Society</i> , Pages 1-18 <b>Impact Factor:</b> 2.506   <b>Quartile:</b> 2   <b>Citations:</b> 23 <b>DOI:</b> <a href="https://doi.org/10.1007/s43207-021-00120-w">https://doi.org/10.1007/s43207-021-00120-w</a>	2021
<b>Detection of lead in soil implying sample heating and laser-induced breakdown spectroscopy</b>  <i>Zeshan Adeel Umar Usman Liaqat Rizwan Ahmed Muhammad Aslam Baig Rizwan Ahmed Muhammad Aslam Baig</i> <i>Applied Optics</i> , Volume 60(2), Pages 452-458 <b>Impact Factor:</b> 1.905   <b>Quartile:</b> 3   <b>Citations:</b> 17 <b>DOI:</b> <a href="https://doi.org/10.1364/AO.404672">https://doi.org/10.1364/AO.404672</a>	2021
<b>Enhanced Mechanical Properties of Functionalized BN nanosheets-Polymer Composites</b>  <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</i> <i>Journal of Polymer Research</i> , Volume 27, Article Number 310 <b>Impact Factor:</b> 3.097   <b>Quartile:</b> 2   <b>Citations:</b> 18 <b>DOI:</b> <a href="https://doi.org/10.1007/s10965-020-02286-z">10.1007/s10965-020-02286-z</a>	2020
<b>Synthesis, Characterization and Process Optimization of Bone Whitlockite</b>  <i>Manzar Sohail Sadaf Batool Usman Liaqat Sadaf Batool Zakir Hussain</i> <i>Nanomaterials</i> , Volume 10(9), Article Number 1856 <b>Impact Factor:</b> 5.076   <b>Quartile:</b> 1   <b>Citations:</b> 27 <b>DOI:</b> <a href="https://doi.org/10.3390/nano10091856">https://doi.org/10.3390/nano10091856</a>	2020
<b>Preparation of PBS/PLLA/HAP Composites by the Solution Casting Method: Mechanical Properties and Biocompatibility</b>  <i>Usman Liaqat Zakir Hussain Muzamil Ahmad Khan Muhammad Arman Liaqat Muhammad Zahoor</i> <i>Nanomaterials</i> , Volume 10(9), Article Number 1778 <b>Impact Factor:</b> 5.076   <b>Quartile:</b> 2   <b>Citations:</b> 16 <b>DOI:</b> <a href="https://doi.org/10.3390/nano10091778">https://doi.org/10.3390/nano10091778</a>	2020
<b>Comparative Study of the Emission Enhancement Due to Target Heating and Laser Energy on the Laser-Produced Copper-Zinc Alloy Plasma</b>  <i>Usman Liaqat Zeshan Adeel Umar Rizwan Ahmed Muhammad Aslam Baig</i> <i>Analytical Letters</i> , Volume 53, Issue 17, Pages 1-16 <b>Impact Factor:</b> 2.329   <b>Quartile:</b> 3   <b>Citations:</b> 7 <b>DOI:</b> <a href="https://doi.org/10.1080/00032719.2020.1799385">https://doi.org/10.1080/00032719.2020.1799385</a>	2020
<b>Detection of toxicity in some oral antidiabetic drugs using LIBS and LA-TOF-MS</b>  <i>Usman Liaqat Nasar Ahmed M. Rafique M. Aslam Baig Walid Tawfik</i> <i>Microchemical Journal</i> , Volume 155, Article Number 104679 <b>Impact Factor:</b> 4.821   <b>Quartile:</b> 1   <b>Citations:</b> 24 <b>DOI:</b> <a href="https://doi.org/10.1016/j.microc.2020.104679">https://doi.org/10.1016/j.microc.2020.104679</a>	2020
<b>Laser-induced plasma-assisted ablation (LIPAA) of glass: Effects of the laser fluence on plasma parameters and crater morphology</b>  <i>T.U. Rahman Z.U. Rehman S. Ullah H. Qayyum B. Shafique R. Ali U. Liaqat A.H. Dogar A. Qayyum</i> <i>Journal of Optics and Laser Technology</i> , Volume 120, 105768 <b>Impact Factor:</b> 3.233   <b>Quartile:</b> 1   <b>Citations:</b> 43 <b>DOI:</b> <a href="https://doi.org/10.1016/j.optlastec.2019.105768">10.1016/j.optlastec.2019.105768</a>	2019

- Classification of Nephrite Using Calibration-Free Laser Induced Breakdown Spectroscopy (CF-LIBS) with Comparison to Laser Ablation–Time-of-Flight–Mass Spectrometry (LA-TOF-MS)** 2019  
*Usman Liaqat Zeshan Adeel Umar Rizwan Ahmed Muhammad Aslam Baig*  
*Analytical Letters* , -  
**Impact Factor:** 1.467 | **Quartile:** 3 | **Citations:** 12  
**DOI:** 10.1080/00032719.2019.1643359
- Elemental Analysis of Cement by Calibration-Free Laser Induced Breakdown Spectroscopy (CF-LIBS) and Comparison with Laser Ablation ? Time-of-Flight ? Mass Spectrometry (LA-TOF-MS), Energy Dispersive X-Ray Spectrometry (EDX), X-Ray Fluorescence Spectroscopy (XRF), and Proton Induced X-Ray Emission Spectrometry (PIXE).** 2019  
*Amir Fayyaz Usman Liaqat Zeshan Adeel Umar Rizwan Ahmed Muhammad Aslam Baig*  
*Analytical Letters* , Volume 52, Issue 12, Pages 1951-1965  
**Impact Factor:** 1.467 | **Quartile:** 3 | **Citations:** 27  
**DOI:** 10.1080/00032719.2019.1586914
- Preparation and Investigation of Ag Nanoparticles/TOPAS Nanocomposie Films for Packaging Applications** 2018  
*Hareem Zainab Zakir Hussain Ahmad Nawaz Khan Usman Liaqat Muhammad Bilal Khan Niazi Tahir Ahmed Baig*  
*Current Nanoscience* , Volume 14, Issue 6, Pages 538-544  
**Impact Factor:** 1.586 | **Quartile:** 3 | **Citations:** 1  
**DOI:** 10.2174/1573413714666180717114523
- Qualitative and quantitative analyses of copper ores collected from Baluchistan, Pakistan using LIBS and LA-TOF-MS** 2018  
*Nasar Ahmad Rizwan Ahmed Zeshan A. Umar<sup>1</sup> Usman Liaqat Umair Manzoor M. Aslam Baig*  
*Applied Physics B: Lasers and Optics* , Volume 124, Article Number 160  
**Impact Factor:** 1.769 | **Quartile:** 3 | **Citations:** 29  
**DOI:** 10.1007/s00340-018-7032-8
- Elemental composition analysis of granite rocks using LIBS and LA-TOF-MS.** 2018  
*ZESHAN ADEEL UMAR NASAR AHMED RIZWAN AHMED USMAN LIAQAT MUHAMMAD ASLAM BAIG*  
*Applied Optics* , NULL  
**Impact Factor:** 1.973 | **Quartile:** 2  
**DOI:** <https://www.ncbi.nlm.nih.gov/pubmed/30117955>
- UV-irradiated parylene surfaces for proliferation and differentiation of PC-12 cells** 2017  
*Usman Liaqat Hwal Suh Misu Lee Hyuk Ko Jae-Chul Pyun*  
*Enzyme and Microbial Technology* , Volume 97, Pages 1-10  
**Impact Factor:** 2.932 | **Quartile:** 2 | **Citations:** 11  
**DOI:** 10.1016/j.enzmictec.2016.10.016
- Surface modification of parylene-N films for the culture of osteoblast-like cells (MG-63)** 2016  
*Usman Liaqat Hyuk Ko Misu Lee Hwal Suh Jae-Chul Pyun*  
*Applied Surface Science* , Volume 378, Pages 277-285  
**Impact Factor:** 3.387 | **Quartile:** 1 | **Citations:** 13  
**DOI:** 10.1016/j.apsusc.2016.03.218

## Conference Proceedings

- Synthesis of Parylene Thin Film by Pulsed Laser Deposition (PLD).** 2018  
*Usman Liaqat*  
*10th International Scientific School – 2018 (ISS-2018)* , res.country(177,)  
**Citations:** N/A  
**DOI:** No DOI available

## Book Chapters

<b>Antibacterial Properties of Two-Dimensional Nanomaterials</b> <i>Elishba Noor Usman Liaqat Waqas Qamar Zaman Sabir Hussain Asif Shahzad Kashif Rasool Zaeem Bin Babar Waheed Miran</i> In: <i>Book on Two-Dimensional Materials for Environmental Applications</i> , 1st Edition, Chapter 5, Pages 137-160 <b>Citations:</b> 3 <b>DOI:</b> 10.1007/978-3-031-28756-5_5	2023
<b>In Vitro and In Vivo Studies of Bioactive Glasses</b> <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 <b>Citations:</b> 5 <b>DOI:</b> 10.1002/9781119724193	2022

## Editorial Activities

<b>Molecules</b> Reviewed Papers for Journals <b>Impact Factor:</b> 4.6	2023
<b>Journal of Functional Biomaterials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 4.901	2023
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals <b>Impact Factor:</b> 2.309	2020
Reviewed Papers for Journals <b>Impact Factor:</b> 2.309	2020
Reviewed Papers for Journals <b>Impact Factor:</b> 1.85	2020
Reviewed Papers for Journals <b>Impact Factor:</b> 1.4	2018
Reviewed Papers for Journals	2018
Reviewed Papers for Journals	2018
Reviewed Papers for Journals <b>Impact Factor:</b> 1.039	2018
Reviewed Papers for Journals <b>Impact Factor:</b> 1.4	2017



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