

# Rabia Liaquat

Associate Professor

US-Pakistan Center for Advanced Studies in Energy

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## About

Dr. Rabia Liaquat is working as Associate Professor in the US-Pakistan Center for Advanced Studies in Energy. Dr. Rabia Liaquat has a PhD in Bioenergy. Dr. Rabia Liaquat has published 72 research articles & conference papers having a citation count of 1722, carried out 6 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Bioenergy</b> Quaid-i-Azam University , Pakistan	2012 - 2016
<b>MPhil in Biotechnology</b> Quaid-i-Azam University , Pakistan	2008 - 2010
<b>MSc in Microbiology</b> Quaid-i-Azam University , Pakistan	2006 - 2008
<b>BSc in (Botany, Zoology, Chemistry)</b> University of the Punjab , Pakistan	2004 - 2006

## Experience

<b>Associate Professor</b> US-Pakistan Center for Advanced Studies in Energy	2024- Present
<b>Associate Professor</b> US-Pakistan Center for Advanced Studies in Energy	2022 - 2021
<b>Associate Professor</b> US-Pakistan Center for Advanced Studies in Energy	2021 - 2022
<b>Assistant Professor</b> US-Pakistan Center for Advanced Studies in Energy	2019 - 2022
<b>Assistant Professor</b> Centre for Energy System	2016 - 2019
<b>Lecturer</b> Centre for Energy System	2015 - 2016

## Awards

<b>Applied research Grant</b> USAID and FFCL funded Applied research Project Valorization of biomass for biomethne production through anaerobic digestion technology: Green energy recovery from waste	
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Research Projects

National Projects

Developing Climate Resilience Environment through Energy Transition and Knowledge Development	2024
Funding Agency: TARA Climate Foundation	
Amount: PKR 22,401,960.00	
Status: Approved_inprocess	
Designing and fabrication of an upscale continuous flow stirred tank (CSTR) bioreactor for biogas generation and its application in IC engines as biofuel	
Funding Agency: NUST	
Amount: PKR 500,000.00	
Status: Approved_inprocess	
Creating Climate Resilience through Energy Transition: Fostering Innovation and Awareness in Pakistan	2023
Funding Agency: Tara Climate Ltd	
Amount: PKR 18,900,120.00	
Status: Approved_inprocess	
To combat climate calamity by promoting energy transition In Pakistan through Knowledge creation, networking, and advocacy for enabling society.	2022
Funding Agency: Tara Climate Ltd	
Amount: PKR 11,312,840.00	
Status: Completed	
Demonstration of Technical Feasibility, Cluster Development and Commercial Viability of Modern Biomass Energy Conversion Technologies in Pakistan.	2019
Funding Agency: UNIDO	
Amount: PKR 11,200,000.00	
Status: Completed	
Methane enhancement by treatment of rice husk co-digested with cow manure	2017
Funding Agency: HEC	
Amount: PKR 500,000.00	
Status: Completed	

International Projects

Research Articles

Photo- and electrocatalytic hydrogen production from dye-degraded wastewater using samarium-doped ceria as a catalyst	2025
Hijab Haider Hira Azeem Asif Hussain Muhammad Hassan Rabia Liaquat Ali Bahadar Muhammed Ali S.A. Mustafa Anwar	
International Journal of Hydrogen Energy, Volume:111, Pages:606-622	
Impact Factor: 8.100   Quartile: 1   Citations: 4	
DOI: <a href="https://doi.org/10.1016/j.ijhydene.2025.02.188">https://doi.org/10.1016/j.ijhydene.2025.02.188</a>	
Synthesis of cellulose-based hydrogel electrolyte from sawdust waste for enhanced ionic conductivity in ssZIBs	2025
00000403115-Nawal Saeed Rabia Liaquat Naseem Iqbal Tahreem Assad Khan	
Materials Science and Engineering: B, Volume 313, Article Number 117951	
Impact Factor: 3.900   Quartile: 1   Citations: 1	
DOI: <a href="https://doi.org/10.1016/j.mseb.2024.117951">doi.org/10.1016/j.mseb.2024.117951</a>	
Effect of lanthanum doped SnO2 on the performance of mixed-cation mixed-halide perovskite layer	2025
Sana Mehmood Nadia Shahzad Saad Nadeem Muhammad Salik Qureshi Abdul Sattar Hina Pervaiz Naseem Iqbal Rabia Liaquat Muhammad Imran Shahzad	
Journal of Molecular Structure, Volume 1321, Part 2, Article Number 139864	
Impact Factor: 4.000   Quartile: 2   Citations: 1	
DOI: <a href="https://doi.org/10.1016/j.molstruc.2024.139864">https://doi.org/10.1016/j.molstruc.2024.139864</a>	
Photocatalytic performance of dual-function selenium-enriched biomass-derived activated carbon as a catalyst for dye degradation and hydrogen production	2025
Hajirah Kanwal Asif Hussain Yassine Hajji Sehar Shakir Mustafa Anwar Rabia Liaquat Israf Ud Din Ali Bahadur Manel Hleili	
International Journal of Hydrogen Energy, Volume 101, Pages 1288-1303	

**Impact Factor:** 8.100 | **Quartile:** 1 | **Citations:** 1  
**DOI:** <https://doi.org/10.1016/j.ijhydene.2024.12.509>

**Designing an innovative 2D/2D step scheme  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>/BiOBr/MoS<sub>2</sub> ternary integrated heterojunction with unparalleled visible-light-induced remarkable photocatalytic H<sub>2</sub> evolution**

2025

*Rabia Nawaz Muhammad Saad Ali Bahadur Shahid Iqbal Ammar Zidan Muhammad Shuaib Khan Rabia Liaquat Manzar Sohail Sajid Mahmood Mohammed T. Alotaibi*

*International Journal of Hydrogen Energy*, Volume:99, Page:112-122

**Impact Factor:** 8.100 | **Quartile:** 1 | **Citations:** 13

**DOI:** <https://doi.org/10.1016/j.ijhydene.2024.12.201>

**Facile Synthesis of Selenium Nanoparticles for Enhanced Oxygen Evolution Reaction: Insights into Electrochemical and Photoelectrochemical Catalysis**

2025

*Sumaya Ishtiaq Ghulam Hussain Hafiza komal Zafar Rabia Liaquat Abdullah A. Al-Kahtani Ayman Nafady Manzar Sohail Shahid Rasul*

*ACS Omega*, Volume 10, Issue 1, Pages 520-528

**Impact Factor:** 3.700 | **Quartile:** 2 | **Citations:** 2

**DOI:** <https://doi.org/10.1021/acsomega.4c07016>

**Thermokinetic investigation of Polyethylene Terephthalate (PET) plastic over biomass fly ash (BFA) catalyst using pyrolysis process through non-isothermal thermogravimetric analysis**

2024

*Ali Raza Waqar UI Habib Khan Asif Hussain Khoja Arslan Khan Muhammad Hassan Rabia Liaquat Majid Ali Israf Ud Din Abdulaziz Al-Anazi*

*Sustainable Chemistry and Pharmacy*, Volume: 42, Article Number: 101856, Pages:15

**Impact Factor:** 5.5 | **Quartile:** 1 | **Citations:** 2

**DOI:** <https://doi.org/10.1016/j.scp.2024.101856>

**Photocatalytic activity of molybdenum-doped LOS- zeolite for efficient dye degradation and hydrogen production**

2024

*Hamza Khawaja Nida Naeem Asif Hussain Khoja Hajirah Kanwal Ali Raza Mustafa Anwar Rabia Liaquat Israf Ud Din Salman Raza Naqvi Abdulaziz Al-Anazi*

*Results in Engineering*, Volume 24, Article Number 103122

**Impact Factor:** 6.000 | **Quartile:** 1 | **Citations:** 5

**DOI:** <https://doi.org/10.1016/j.rineng.2024.103122>

**Solution-Processed Zinc-Tin-Based Ternary Oxide Electron Transport Layers for Planar Perovskite Solar Cells**

2024

*Saad Nadeem Nadia Shahzad Sana Mehmood Muhammad Salik Qureshi Abdul Sattar Rabia Liaquat Sehar Shakir Muhammad Imran Shahzad Diego Pugliese*

*Physica Status Solidi A - Applications and Materials Science*, Volume: 222, Issue: 4 Article Number; 2400700, Pages:07

**Impact Factor:** 1.900 | **Quartile:** 3

**DOI:** <https://doi.org/10.1002/pssa.202400700>

**A novel application of Chlorella Sorokiniana for green hydrogen production via microbial electrolysis and Waste Biorefinery**

2024

*Rabia Liaquat Ayesha Aslam Ali Bahadar Abdul Basit*

*Process Safety and Environmental Protection*, Volume 189, Pages 164-176

**Impact Factor:** 6.900 | **Quartile:** 1 | **Citations:** 1

**DOI:** [doi.org/10.1016/j.psep.2024.06.093](https://doi.org/10.1016/j.psep.2024.06.093)

**Investigation of Novel Transition Metal Loaded Hydrochar Catalyst Synthesized from Waste Biomass (Rice Husk) and Its Application in Biodiesel Production Using Waste Cooking Oil (WCO)**

2024

*Rabia Liaquat Asif Hussain Khoja Laraib Aamir Khan Mohammed Aman Mohammad Kanan Muhammad Saleem Ali Bahadar Waqar UI Habib Khan*

*Sustainability*, Volume 16, Issue 17, Article Number 7275

**Impact Factor:** 3.300 | **Quartile:** 2 | **Citations:** 2

**DOI:** <https://doi.org/10.3390/su16177275>

**In-depth understanding of the microscopic mechanism of biochar carbonaceous structures during thermochemical conversion: Pyrolysis, combustion and gasification**

2024

*Rabia Liaquat Xun Zou Ming Zhai Guannan Liu Tongyao Wang Li Guo Yu Zhang*

*Fuel*, Volume 361, Article Number 130732

**Impact Factor:** 6.700 | **Quartile:** 1 | **Citations:** 17

**DOI:** [doi.org/10.1016/j.fuel.2023.130732](https://doi.org/10.1016/j.fuel.2023.130732)

**Synergistic transformation: Kinetic and thermodynamic evaluation of co-pyrolysis for low-rank bituminous coal and polyurethane foam waste**

2024

*Zaid Mohammad Banyhani Waqar UI Habib Khan Hala H. Abd El-Gawad Dr. Mustafa Anwar Dr. Asif Hussain Khoja Dr. Muhammad Hassan Dr. Rabia Liaquat Zeinhom M. El-Bahy*

**Impact Factor:** 7.8 | **Quartile:** 1 | **Citations:** 12

**DOI:** 10.1016/j.psep.2024.01.041

**A stable metal ferrite Construction, physical Characterizations, and investigation magnetic properties in thin polymer films**

2024

*Rabia Liaquat Sohail Nadeem Nafeesa Allah Ditta Mohsin Javed Abdul Sattar Sajid Mahmood Shahid Iqbal Ayesha Mohyuddin Ali Bahadur Matar Alshalwi Materials Science and Engineering B-Advanced Functional Solid-State Materials*, Volume 300, Article Number 117064

**Impact Factor:** 3.900 | **Quartile:** 2 | **Citations:** 2

**DOI:** doi.org/10.1016/j.mseb.2023.117064

**Self-cleaning study of SiO<sub>2</sub> modified TiO<sub>2</sub> nanofibrous thin films prepared via electrospinning for application in solar cells**

2024

*Izzah Batool Nadia Shahzad Roha Shehzad Aamir Naseem Satti Rabia Liaquat Adeel Waqas Muhammad Imran Shahzad Solar Energy*, Volume 268, Article Number 112271

**Impact Factor:** 6.700 | **Quartile:** 2 | **Citations:** 20

**DOI:** 10.1016/j.solener.2023.112271

**Effect of surfactants on the stability and thermophysical properties of Al<sub>2</sub>O<sub>3</sub>+TiO<sub>2</sub> hybrid nanofluids**

2023

*Abdul Rehman Sana Yaqub Majid Ali Hassan Nazir Nadia Shahzad Sehar Shakir Rabia Liaquat Zafar Said Journal of Molecular Liquids*, Volume 391, Part B, Article Number 123350

**Impact Factor:** 6.0 | **Quartile:** 1 | **Citations:** 31

**DOI:** https://doi.org/10.1016/j.molliq.2023.123350

**Recent advances in biological hydrogen production from algal biomass: A comprehensive review**

2023

*Ayesha Aslam Ali Bahadar Rabia Liaquat Muhammad Muddasar Fuel*, Volume 350, Article Number 128816

**Impact Factor:** 6.7 | **Quartile:** 1 | **Citations:** 17

**DOI:** doi.org/10.1016/j.fuel.2023.128816

**Model-based optimal and robust control of renewable hydrogen gas production in a fed-batch microbial electrolysis cell**

2023

*Rabia Liaquat Muhammad Zia Ur Rahman Mohsin Rizwan Victor Leiva Muhammad Muddasar International Journal of Hydrogen Energy*, Volume 48, Issue 79, Pages 30685-30701

**Impact Factor:** 7.2 | **Quartile:** 1 | **Citations:** 10

**DOI:** doi.org/10.1016/j.ijhydene.2023.04.184

**Thermocatalytic partial oxidation of methane to syngas (H<sub>2</sub>, CO) production using Ni/La<sub>2</sub>O<sub>3</sub> modified biomass fly ash supported catalyst**

2023

*Amin Ul Hasanat Asif Hussain Khoja Nida Naeem Abdulaziz Al-Anazi Rabia Liaquat Bilal Alam Khan Israf Ud Din Results in Engineering*, Volume 19, Article Number 10133

**Impact Factor:** 6.000 | **Quartile:** 1 | **Citations:** 17

**DOI:** https://doi.org/10.1016/j.rineng.2023.101333

**Coaxial microbial electrolysis cell for cost-effective bioenergy production and wastewater treatment of potato industry effluent**

2023

*Rabia Liaquat Muhammad Muddasar Muhammad Zia Ur Rahman Asif Hussain Khoja Ayesha Aslam Abdul Basit Journal of Chemical Technology and Biotechnology*, Volume 98, Issue 9, Pages 2203-2213

**Impact Factor:** 3.4 | **Quartile:** 2 | **Citations:** 11

**DOI:** doi.org/10.1002/jctb.7433

**Synthesis of novel biodegradable starch-PMA and Ag@starch-PMA polymer composite for boosting charge separation ability and superior photocatalytic performance**

2023

*Muhammad Amjad Ayesha Mohyuddin Mohsin Javed Shahid Iqbal Rabia Liaquat Mohammed T. Alotaibi Wajad Ulfat Randa A. Althobiti Eman Alzahrani Abd-ElAzim Farouk Murefah Mana Al-Anazy Eslam B. Elkaeed Journal of Materials Science: Materials in Electronics*, Volume 34, Issue 21, Article Number 1577

**Impact Factor:** 2.8 | **Quartile:** 2 | **Citations:** 6

**DOI:** 10.1007/s10854-023-10997-4

**Thermal steam methane reforming over bimetal-loaded hemp-derived activated carbon-based catalyst for hydrogen production**

2022

*Rashid Minhas Asif Hussain Khoja Nida Naeem Mustafa Anwar Sehar Shakir Rabia Liaquat Israf Ud Din Research on Chemical Intermediates*, Pages 1-23

**Impact Factor:** 3.134 | **Quartile:** 3 | **Citations:** 12

**DOI:** https://doi.org/10.1007/s11164-022-04924-1

- A Robust Controller of a Reactor Electromicrobial System Based on a Structured Fractional Transformation for Renewable Energy** 2022  
*Rabia Liaquat Muhammad Zia Ur Rahman Mohsin Rizwan Carlos Martin-Barreiro Víctor Leiva*  
*Fractal and Fractional*, Volume 6, Issue 12, Article Number 736  
**Impact Factor:** 5.4 | **Quartile:** 1 | **Citations:** 7  
**DOI:** doi.org/10.3390/fractalfract6120736
- Investigation of combustion performance of tannery sewage sludge using thermokinetic analysis and prediction by artificial neural network** 2022  
*Arslan Khan Imtiaz Ali Wasif Farooq Salman Raza Naqvi Muhammad Taqi Mehran Ameen Shahid Rabia Liaquat Muhammad Waqas Anjum Muhammad Naqvi*  
*Case Studies in Thermal Engineering*, Volume 40, Article Number 102586  
**Impact Factor:** 6.268 | **Quartile:** 1 | **Citations:** 37  
**DOI:** https://doi.org/10.1016/j.csite.2022.102586
- Recent progress in microalgae-derived biochar for the treatment of textile industry wastewater** 2022  
*Abdul Ahad Khan Jawad Gul Salman Raza Naqvi Imtiaz Ali Wasif Farooq Rabia Liaquat Hamad AlMohamadi Libor Štěpanec Dagmar Juchelková*  
*Chemosphere*, Volume 306, Article Number 135565  
**Impact Factor:** 8.943 | **Quartile:** 1 | **Citations:** 119  
**DOI:** https://doi.org/10.1016/j.chemosphere.2022.135565
- Potential of plant growth promoting rhizobacteria to mitigate chromium contamination** 2022  
*Zain Mushtaq a Mehwish Liaquat Anum Nazir Rabia Liaquat Hira Iftikhar Waheed Anwar Nizwa Itrat*  
*Environmental Technology and Innovation*, Volume 28, Article Number 102826  
**Impact Factor:** 7.1 | **Quartile:** 1 | **Citations:** 30  
**DOI:** https://doi.org/10.1016/j.eti.2022.102826
- Techno-economic and GHG mitigation analyses based on regional and seasonal variations of non-concentrating solar thermal collectors in textile sector of Pakistan** 2022  
*Rabia Liaquat Elia Nauroz Ali Majid Ali Adeel Waqas Nadia Shahzad*  
*Renewable Energy Focus*, Volume:42, Page:165-177  
**Impact Factor:** 4.8 (ESCI) | **Citations:** 10  
**DOI:** 10.1016/j.ref.2022.06.005
- Carbonyl functional group assisted crystallization of mixed tin–lead narrow bandgap perovskite absorber in ambient conditions** 2022  
*Abdul Sattar Nadia Shahzad Muhammad Ali Tariq Tanzeela Yousaf Muhammad Salik Qureshi Muhammad Imran Shahzad Rabia Liaquat Majid Ali*  
*Applied Physics Letters*, Volume 121, Issue 7, Article Number 073901  
**Impact Factor:** 3.971 | **Quartile:** 2  
**DOI:** https://doi.org/10.1063/5.0099988
- Investigating the characterisation, kinetic mechanism, and thermodynamic behaviour of coal-biomass blends in co-pyrolysis process** 2022  
*Hamad Gohar Asif Hussain Khoja Abeera Ayaz Ansari Salman Raza Naqvi Rabia Liaquat Muhammad Hassan Khalil Hasni Umair Yaqoob Qazi Imtiaz Ali*  
*Process Safety and Environmental Protection*, Volume 163, Pages 645-658  
**Impact Factor:** 6.158 | **Quartile:** 1 | **Citations:** 52  
**DOI:** 10.1016/j.psep.2022.05.063
- Thermokinetics synergistic effects on co-pyrolysis of coal and rice husk blends for bioenergy production** 2022  
*Maham Tauseef Abeera Ayaz Ansari Asif Hussain Khoja Salman Raza Naqvi Rabia Liaquat William Nimmo Syed Sheraz Daood*  
*Fuel*, Volume 318, Article Number 123685  
**Impact Factor:** 6.609 | **Quartile:** 1 | **Citations:** 47  
**DOI:** https://doi.org/10.1016/j.fuel.2022.123685
- Praseodymium-doped Sr<sub>2</sub>TiFeO<sub>6-δ</sub> double perovskite as a bi-functional electrocatalyst for hydrogen production through water splitting** 2022  
*Qassam Sarmad Uneeb Masood Khan Mutawara Mahmood Baig Muhammad Hassan Faaz Ahmed Butt Asif Hussain Rabia Liaquat Zuhair Subhani Khan Mustafa Anwar Muhammed Ali S.A.*  
*Journal of Environmental Chemical Engineering*, Volume 10, Issue 3, Article Number 107609  
**Impact Factor:** 5.909 | **Quartile:** 1 | **Citations:** 38  
**DOI:** 10.1016/j.jece.2022.107609
- Mixotrophic cultivation of microalgae for carotenoid production** 2022  
*Fakhra Liaquat Mahammed Ilyas Khazi Ali Bahadar Lu He Ayesha Aslam Rabia liaquat Spiros N. Agathos Jian Li*

*Reviews in Aquaculture*, Pages 1-27

**Impact Factor:** 10.618 | **Quartile:** 1 | **Citations:** 36

**DOI:** 10.1111/raq.12700

**Real-time artificial intelligence based health monitoring, diagnosing and environmental control system for COVID-19 patients**

2022

Muhammad Zia Ur Rahman Abeer Abdulaziz AlSanad Ali Hassan Raza Muhammad Azeem Akbar Rabia Liaquat Muhammad Tanveer Riaz Lulwah AlSuwaidan Abdulaziz Al-Alshaikh Hatoun S Alsagri

*Mathematical Biosciences and Engineering*, Volume 19, Issue 8, Pages 7586-7605

**Impact Factor:** 2.194 | **Quartile:** 3 | **Citations:** 12

**DOI:** DOI: 10.3934/mbe.2022357

**Partial oxidation of methane over biomass fly ash (BFA)-supported Ni/CaO catalyst for hydrogen-rich syngas production**

2022

Nida Naeem Asif Hussain Khoja Faaz Ahmed Butt Muhammad Arfan Rabia Liaquat Amin Ul Hasnat

*Research on Chemical Intermediates*, Pages 1-28

**Impact Factor:** 2.914 | **Quartile:** 3 | **Citations:** 13

**DOI:** 10.1007/s11164-022-04685-x

**Biological carbon capture, growth kinetics and biomass composition of novel microalgal species**

2022

Rabia Liaquat Tahreem Assad Khan Zeshan Asif Hussain Khoja Atia Bano

*Bioresource Technology Reports*, Volume 17, Article Number 100982

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

**DOI:** doi.org/10.1016/j.biteb.2022.100982

**Synthesis of bimetallic Co-Ni/ZnO nanoprisms (ZnO-NPr) for hydrogen-rich syngas production via partial oxidation of methane**

2021

Ahad Hussain Javed M. Abdullah Khan Nadia Shahzad Faaz Ahmed Butt Nida Naeem Rabia Liaquat Asif Hussain Khoja

*Journal of Environmental Chemical Engineering*, Volume 9, Issue 6, Article Number 106887

**Impact Factor:** 5.909 | **Quartile:** 1 | **Citations:** 17

**DOI:** https://doi.org/10.1016/j.jece.2021.106887

**Partial oxidation of methane over CeO<sub>2</sub> loaded hydrotalcite (MgNiAl) catalyst for the production of hydrogen rich syngas (H<sub>2</sub>, CO)**

2021

Anees ul Hasnain Faaz Ahmed Butt Faisal Saleem Muhammad Taqi Mehran Rabia Liaquat Majid Ali Zaki IsmailZaki Asif Hussain Khoja Mariam Ayesha

*International Journal of Hydrogen Energy*, Volume 46, Issue 74, Pages 36663-36677

**Impact Factor:** 5.816 | **Quartile:** 2 | **Citations:** 19

**DOI:** 10.1016/j.ijhydene.2021.08.169

**Methane decomposition for hydrogen production over biomass fly ash-based CeO<sub>2</sub> nanowires promoted cobalt catalyst**

2021

Jehangeer Raza Asif Hussain Khoja Salman Raza Naqvi Muhammad Taqi Mehran Sehar Shakir Rabia Liaquat Muhammad Tahir Ghulam Ali

*Journal of Environmental Chemical Engineering*, Volume 9, Issue 5, Article Number 105816

**Impact Factor:** 7.968 | **Quartile:** 1 | **Citations:** 39

**DOI:** https://doi.org/10.1016/j.jece.2021.105816

**Designing of homemade soiling station to explore soiling loss effects on PV modules**

2021

Naveed Hussain Nadia Shahzad Tanzeela Yousaf Adeel Waqas Ahad Hussain Javed Sheheryar Khan Majid Ali Rabia Liaquat

*Solar Energy*, Vol. 225, PP. 624–633

**Impact Factor:** 7.188 | **Quartile:** 2 | **Citations:** 12

**DOI:** https://doi.org/10.1016/j.solener.2021.07.036

**Evaluating the use of unassimilated bio-anode with different exposed surface areas for bioenergy production using solar-powered microbial electrolysis cell**

2021

Muhammad Muddasar Rabia Liaquat Ali Abdullah Asif Hussain Nadia Shahzad Naseem iqbal Muhammad Ishtiaq Ali Azhar Uddin Sami Ullah

*International Journal of Energy Research*, Page 1-13

**Impact Factor:** 4.672 | **Quartile:** 1 | **Citations:** 15

**DOI:** 10.1002/er.7091

**A comparison of energy policies of Pakistan and their impact on bioenergy development**

2021

Zulfiqar Ali Rabia Liaquat Asif Hussain Khoja Umair Safdar

*Sustainable Energy Technologies and Assessments*, Volume 46, Article Number 101246

**Impact Factor:** 7.632 | **Quartile:** 2 | **Citations:** 13

**DOI:** https://doi.org/10.1016/j.seta.2021.101246

<b>Techno-economic modeling of biomass gasification plants for small industries in Pakistan</b> <i>Muhammad Ali Qamar Adeel Javed Rabia Liaquat Muhammad Hassan</i> <i>Biomass Conversion and Biorefinery</i> , Pages 1-11 <b>Impact Factor:</b> 4.050   <b>Quartile:</b> 2   <b>Citations:</b> 3 <b>DOI:</b> <a href="https://doi.org/10.1007/s13399-021-01767-5">https://doi.org/10.1007/s13399-021-01767-5</a>	2021
<b>Enhanced Methane Production from Anaerobic Co-digestion of wheat straw rice straw and sugarcane bagasse: A Kinetic Analysis</b> <i>Sadia Meraj Rabia Liaquat Salman Raza Naqvi Zeshan Sheikh Atoofa Zainab Asif Hussain Khoja Dagmar Juchelkova Abdulaziz Atabani</i> <i>Applied Sciences</i> , Volume 11(13), Article Number 6069 <b>Impact Factor:</b> 2.838   <b>Quartile:</b> 2   <b>Citations:</b> 30 <b>DOI:</b> <a href="https://doi.org/10.3390/app11136069">https://doi.org/10.3390/app11136069</a>	2021
<b>Algae as an attractive source for cosmetics to counter environmental stress</b> <i>Ayesha Aslam Ali Bahadur Rabia Liaquat Adeel Waqas Muhammad Saleem Mohammed Zwawi</i> <i>Science of the Total Environment</i> , Volume 772, Article Number 144905 <b>Impact Factor:</b> 10.754   <b>Quartile:</b> 1   <b>Citations:</b> 72 <b>DOI:</b> <a href="https://doi.org/10.1016/j.scitotenv.2020.144905">https://doi.org/10.1016/j.scitotenv.2020.144905</a>	2021
<b>Performance Analysis of TiO<sub>2</sub>-Modified Co/MgAl<sub>2</sub>O<sub>4</sub> Catalyst for Dry Reforming of Methane in a Fixed Bed Reactor for Syngas (H<sub>2</sub>, CO) Production</b> <i>Arslan Mazhar Asif Hussain Khoja Abul Kalam Azad Faisal Mushtaq Salman Raza Naqvi Sehar Shakir Muhammad Hassan Rabia Liaquat Mustafa Anwar</i> <i>Energies</i> , Volume 14(11), Article Number 3347 <b>Impact Factor:</b> 3.004   <b>Quartile:</b> 3   <b>Citations:</b> 24 <b>DOI:</b> <a href="https://doi.org/10.3390/en14113347">https://doi.org/10.3390/en14113347</a>	2021
<b>Photo-electrochemical water splitting through graphene-based ZnS composites for H<sub>2</sub> production</b> <i>Ahmed Hassan Rabia Liaquat Naseem Iqbal Ghulam Ali Xue Fan Zelong Hu Mustafa Anwar Awais Ahmad</i> <i>Journal of Electroanalytical chemistry</i> , Volume 889, Article Number 115223 <b>Impact Factor:</b> 4.598   <b>Quartile:</b> 1   <b>Citations:</b> 31 <b>DOI:</b> <a href="https://doi.org/10.1016/j.jelechem.2021.115223">https://doi.org/10.1016/j.jelechem.2021.115223</a>	2021
<b>Synthesis and characterization of biomass-derived surface-modified activated carbon for enhance CO<sub>2</sub> adsorption</b> <i>Azeem Sarwar Majid Ali Asif Hussain Khoja Azra Nawar Adeel Waqas Rabia Liaquat Salman Raza Naqvi Muhammad Asjid</i> <i>Journal of CO<sub>2</sub> Utilization</i> , Volume 46, Article Number 101476 <b>Impact Factor:</b> 7.132   <b>Quartile:</b> 1   <b>Citations:</b> 153 <b>DOI:</b> <a href="https://doi.org/10.1016/j.jcou.2021.101476">https://doi.org/10.1016/j.jcou.2021.101476</a>	2021
<b>Biomass ash characterization, fusion analysis and its application in catalytic decomposition of methane</b> <i>Muhammad Assad Munawar Asif Hussain Khoja Muhammad Hassan Rabia Liaquat Salman Raza Naqvi Muhammad Taqi Mehran Ali Abdullallah Faisal Saleem</i> <i>Fuel</i> , Volume 285, Article Number 119107 <b>Impact Factor:</b> 6.609   <b>Quartile:</b> 1   <b>Citations:</b> 68 <b>DOI:</b> <a href="https://doi.org/10.1016/j.fuel.2020.119107">10.1016/j.fuel.2020.119107</a>	2021
<b>Investigating the potential of locally sourced wastewater as a feedstock of microbial desalination cell (MDC) for bioenergy production</b> <i>Rabia Liaquat Tariq Mehmood Asif Hussain Khoja Naseem Iqbal Haider ejaz Sadia Mumtaz</i> <i>Bioprocess and Biosystems Engineering</i> , Pages 1-12 <b>Impact Factor:</b> 3.210   <b>Quartile:</b> 2   <b>Citations:</b> 12 <b>DOI:</b> <a href="https://doi.org/10.1007/s00449-020-02433-2">10.1007/s00449-020-02433-2</a>	2020
<b>Effect of alkaline and alkaline-photocatalytic pretreatment on characteristics and biogas production of rice straw</b> <i>Zeshan Rabia Liaquat Mariam Sabeeh Ayesha Maryam</i> <i>Bioresource Technology</i> , Volume 309, Article Number 123449 <b>Impact Factor:</b> 9.642   <b>Quartile:</b> 1   <b>Citations:</b> 59 <b>DOI:</b> <a href="https://doi.org/10.1016/j.biortech.2020.123449">10.1016/j.biortech.2020.123449</a>	2020
<b>Enhanced biogas production at mesophilic and thermophilic temperatures from a slaughterhouse waste with zeolite as ammonia adsorbent</b> <i>Bushra Fatima Rabia Liaquat Uzma Farooq Asif Jamal Ishtiaq Ali F-J Liu H. He M. Urynowicz Z. Huang H. Guo</i> <i>International Journal of Environmental Science and Technology</i> , Pages 1-10	2020

<b>Impact Factor:</b> 2.860   <b>Quartile:</b> 3   <b>Citations:</b> 11 <b>DOI:</b> <a href="https://doi.org/10.1007/s13762-020-02822-w">https://doi.org/10.1007/s13762-020-02822-w</a>	
<b>Copper and calcium based metal organic framework catalyst for biodiesel production from waste cooking oil: process optimization study</b> <i>Unza Jamil Asif Hussain Khoja Rabia Liaquat Salman Raza Naqvi Wan Nor Nadyaini Wan Omar Nor Aishah Saidina Amin</i> <i>Energy Conversion and Management</i> , Volume 215, Article Number 112934 <b>Impact Factor:</b> 9.709   <b>Quartile:</b> 1   <b>Citations:</b> 152 <b>DOI:</b> <a href="https://doi.org/10.1016/j.enconman.2020.112934">https://doi.org/10.1016/j.enconman.2020.112934</a>	2020
<b>Techno-spatial assessment of waste cooking oil for biodiesel production in Pakistan</b> <i>Muhammad Ali Qamar Rabia Liaquat Unza Jamil1 Rida Mansoor Sidra Azam</i> <i>SN Applied Sciences</i> , Volume 2, Article Number 901 <b>Impact Factor:</b> -   <b>Citations:</b> 7 <b>DOI:</b> <a href="https://doi.org/10.1007/s42452-020-2716-1">https://doi.org/10.1007/s42452-020-2716-1</a>	2020
<b>Catalytic Efficiency of Acidithiobacillus ferrooxidans for Bioleaching Copper from Chalcocite Containing Sulfide Ore from Reko Diq Deposits</b> <i>Muhammad Ali Furqan Uzma Farooq Rabia Liaquat Huda Ahmed Alghamdi Bashir Ahmad Zahid Qureshi Asif Jamal Isfahan Tauseef Syed Kashif Haleem</i> <i>Inayat ullah Muhammad Ishtiaq Ali</i> <i>Polish Journal of Environmental Studies</i> , Volume 29, No. 2, Pages 1593-1600 <b>Impact Factor:</b> 1.699   <b>Quartile:</b> 4   <b>Citations:</b> 3 <b>DOI:</b> DOI: 10.15244/pjoes/96257	2020
<b>Major barriers to the diffusion of bio-digestion technology in Pakistan An innovation system perspective</b> <i>Atoofa Zainab Rabia Liaquat Saadia Meraj</i> <i>International Journal of Energy Sector Management</i> , Pages 1-14 <b>Impact Factor:</b> 0   <b>Citations:</b> 1 <b>DOI:</b> 10.1108/IJESM-07-2019-0001	2019
<b>Study on Natural Organic Materials as Biofilm Carriers for the Optimization of Anaerobic Digestion</b> <i>Saadia Meraj Rabia Liaquat Atoofa Zainab</i> <i>Waste and Biomass Valorization</i> , Pages 1-11 <b>Impact Factor:</b> 2.851   <b>Quartile:</b> 2   <b>Citations:</b> 18 <b>DOI:</b> <a href="https://doi.org/10.1007/s12649-019-00628-7">https://doi.org/10.1007/s12649-019-00628-7</a>	2019
<b>Applications of materials as additives in anaerobic digestion technology</b> <i>Sania Arif Rabia Liaquat Manal Adil</i> <i>Renewable and Sustainable Energy Reviews</i> , Volume 97, Pages 354-366 <b>Impact Factor:</b> 10.556   <b>Quartile:</b> 1   <b>Citations:</b> 106 <b>DOI:</b> 10.1016/j.rser.2018.08.039	2018
<b>Relationship between microbial community, operational factors and ammonia inhibition resilience in anaerobic digesters at low and moderate ammonia background concentrations</b> <i>Y. Lu Rabia Liaquat S. Astals P.D. Jensen D.J. Batstone S. Tait</i> <i>New Biotechnology</i> , NULL <b>Impact Factor:</b> 3.739   <b>Quartile:</b> 1   <b>Citations:</b> 38 <b>DOI:</b> 10.1016/j.nbt.2018.02.013	2018
<b>Electrochemical integration of algal biodiesel production and yeast based fermentation for power production</b> <i>Haider Ejaz Anam Qadir Ehsan Ali Haider Ejaz Anam Qadir Ehsan Ali Rabia Liaquat</i> <i>Journal of Biotech Research</i> , Volume 8, Pages 48-57 <b>Impact Factor:</b> - <b>DOI:</b> -	2017
<b>Production and characterization of <math>\alpha</math>-amylase from indigenously isolated bacterial strains treating organic waste in anaerobic digester</b> <i>Rabia Liaquat Sidra kaleem Aqeela Azeem Asif Jamal Ishtiaq Ali</i> <i>Pakistan Journal of Agricultural Sciences</i> , Volume 52(4), Pages 895-903 <b>Impact Factor:</b> 0.597   <b>Quartile:</b> 3 <b>DOI:</b> <a href="http://www.pakjas.com.pk/viewpapers.php?valv=52&amp;vali=141">http://www.pakjas.com.pk/viewpapers.php?valv=52&amp;vali=141</a>	2015
<b>Inhibition resilience of microbes in pig effluent lagoons</b> <i>Rabia Liaquat S. Astals P. D. Jensen D. J. Batstone S. Tait</i>	2015



Impact Factor: 0.902 | Quartile: 2

DOI: <https://doi.org/10.1071/ANv55n12Ab053>

**Antimicrobial potential of leaf and fruit extracts and oils of wild and cultivated edible olive**

2014

*Rabia Liaquat Iqbal Ahmed Qarshi Altaf Hussain Saeed Akhtar Irum Aziz Ikram Ullah Zabta Khan Shinwari*

*Pakistan Journal of Botany*, Volume 46(4), Pages 1463-1468

Impact Factor: 0.822 | Quartile: 3

DOI: <http://www.pakbs.org/pjbot/>

## Conference Proceedings

**Enhancing Fecal Sludge Biodegradation through Anaerobic Co-Digestion: Investigating the Impact of Co-Substrate**

2024

*Nida Maqbool Sher Jamal Khan Kamran Manzoor Rabia Liaquat Zeshan*

*16th International Conference on Sustainable Energy & Environmental Protection SEEP 2024* , res.country(12,)

Citations: N/A

DOI: Accepted

**Performance Enhancement of Microbial Fuel Cell by using Ceramic Membrane Separator as a Sustainable Solution for Power Production**

2024

*Rabia Liaquat Saira Kanwal*

*International Conference on Biological Research and Applied Science*, res.country(177,)

Citations: N/A

DOI: Nil

**Optimization of industrial hybrid renewable energy system using HOMER**

2023

*Muhammad Haseeb Khalid Sehar Shakir Adeel Waqas Rabia Liaquat Abdul Kashif Janjua*

*2023 International Conference on Emerging Power Technologies, ICEPT 2023*, res.country(177,)

Citations: N/A

DOI: 10.1109/ICEPT58859.2023.10152347

**Biogenic hydrogen production from potato peel by mesophilic dark fermentation**

2019

*Rida Mansoor M.Ali Qamar Rabia Liaquat*

*3rd international conference Empowering nation through Science*, res.country(177,)

Citations: N/A

DOI: N/A

**Photo catalytic Degradation of organic dyes by semiconducting metal sulphide nanoparticles of Copper and Zinc through single source precursor**

2018

*Unza Jamil Rida Mansoor Bushra Batool Rabia Liaquat*

*1st international workshop on Energy Materials and Nanotechnology*, res.country(177,)

Citations: N/A

DOI: N/A

**An Analysis of Bio-Energy Technology in Pakistan using Technological Innovation System (TIS) Approach**

2018

*Rabia Liaquat*

*UK PK Joint Workshop on Fuels and Energy Systems*, res.country(231,)

Citations: N/A

DOI: N/A

## Book Chapters

**Nanomaterial-assisted anaerobic digestion of biomass for bioenergy and biofuel production**

2024

*Rabia Liaquat Muhammad Muddasar*

In: *Book on Nanomaterials in Biomass Conversion: Advances and Applications for Bioenergy, Biofuels, and Bio-based Products* Chapter 10, Pages 235-266

Citations: 4

DOI: [doi.org/10.1016/B978-0-443-13500-2.00007-9](https://doi.org/10.1016/B978-0-443-13500-2.00007-9)

Editorial Activities

Reviewed Papers for Journals <b>Impact Factor:</b> 1.974	2020
Reviewed Papers for Journals <b>Impact Factor:</b> 2.851	2018

Trainings

Biomass to Energy Technologies( <b>Partner:</b> NUST <b>Duration:</b> 07-Aug-2019 to 07-Aug-2019	2019
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