

Dr. Jallat Khan, Ph. D

Associate Dean, Faculty of Biological, Health Sciences & Technology

Director, Institute of Biological Sciences

Associate Professor

Institute of Chemistry

Khwaja Fareed University of Engineering & Information Technology

Rahim Yar Khan, Pakistan

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PERSONNELS

Name	Jallat Khan
Father's name	Nazar Khan
Date of Birth	1st. September 1981
N.I.C. No.	31303-5074766-9
Domicile	Rahim Yar Khan, Pakistan
Marital Status	Married
Nationality	Pakistani
Passport No	UL.4117661



PRESENT POSITION

- **Associate Dean**, Faculty of Biological, Health Sciences & Technology
- **Director**, Institute of Biological Sciences since May 20, 2022, to date
- **HoD**, Department of Bioscience and Technology, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan from October 23, 2020 to May 19, 2022.
- **Additinal Director**, Maintenance & Repair Department, KFUEIT Since June 23, 2020.
- Working as an **Associate Professor** at the Institute of Chemistry, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan Since **August, 3 2023**.
- Working as an Assistant Professor at the Institute of Chemistry, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan Since **April, 21 2016 to August 02, 2023**.

ACADEMICS

PhD. Chemistry 2009-2015:

The Islamia University Bahawalpur, Pakistan

Title of Thesis:

Phytochemical and biological screening of two folk medicinal plants *Suaeda fruticosa* and *Cardaria chalepensis* of Pakistan.

M. Phil. Chemistry 2007-2009:

The Islamia University Bahawalpur, Pakistan

Title of Thesis: Chemical detection and purification of Isoprenoids from the unexplored specie of the genus *Launaea* collected from Cholistan.

M.Sc. Chemistry 2003-2005: Bahauddin Zakariya University Multan, Pakistan.

Major Subjects: Organic Chemistry, Analytical Chemistry.

Bachelors of Science 2001-2003: The Islamia University of Bahawalpur, Pakistan.

Major Subjects: Chemistry, Botany, Zoology.

Research/Professional Experience

At Present:

- Director, **Institute of Biological Sciences** since May 20, 2022 to date
- Worked as **HoD**, Department of Bioscience and Technology, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan from October 23, 2020 to May 19, 2022.
- Additinal Director, Maintenance & Repair Department, KFUEIT Since June 23, 2020.
- Working as an Assistant Professor in the Institute of Chemistry, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan Since 21 April 2016.

2013 to 2014, Visiting Scholar:

- Visiting Scholar at **Texas A&M University, Texas, USA**
- Visiting Scholar at **University of Mississippi, MS, USA**
- **Topic:** “Phytochemical and Biological Screening of Two Folk Medicinal Plants *Suaeda fruticosa* and *Cardaria chalepensis* of Pakistan”
- Member of Board of studies, *Department of Basic Sciences & Humanities*, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan.

Teaching Experience

- **Associate Professor BPS-20** in the *Department of Chemistry*, Khwaja Fareed University of Engineering & IT, Rahim Yar Khan since August, 2023.
- **Assistant Professor BPS-19** in the *Department of Chemistry*, Khwaja Fareed University of Engineering & IT, Rahim Yar Khan since March, 2017.
- **Assistant Professor IPFP** (*Interim Placement of Fresh PhD Program*) in the *Department of Basic Sciences & Humanities*, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan since April, 2016.
- **April 2015 to 20 April 2016:**
NICAAS Postgraduate College, Rahim Yar Khan
 - Head Department of Chemistry.
 - Lecturer of Chemistry for graduate and post graduate Classes.

Academic Achievements:

Developed the curricula of the following Programs:

- 1) MSc Chemistry
- 2) BS Chemistry
- 3) MS Chemistry
- 4) PhD Chemistry
- 5) BS Biochemistry
- 6) BS Biotechnology
- 7) BS Microbiology
- 8) BS Forensic Science
- 9) BS Bioinformatics
- 10) BS Medical Imaging Technology
- 11) BS Aesthetics and Cosmetological Sciences
- 12) Doctor of Physical Therapy
- 13) BS Medical Laboratory Technology
- 14) BS Optometry
- 15) BS Clinical Psychology
- 16) BS Orthotics and Prosthetics
- 17) Developed Biotechnology Research Lab under NRPU Project

Scholarships Awarded and Distinctions

- ◆ HEC Indigenous PhD Scholarship (2007 to 2013).
- ◆ Six month IRSIP (*International Research Support Initiative Program*) Scholarship for U.S.A from HEC. (2013 to 2014)

Research Grants

- ◆ Received Research Grant of **Rs: 0.5 million** under “Start-up Research Grant Program” (SRGP) by Higher Education Commission, Pakistan

Title: “Phytochemical and Biological Screening of *Saussurea Albescens*”

- ◆ **Ref No. 20-14727/NRPU/R&D/HEC/2021-2020/** “Cost Effective and Eco-friendly production and utilization of Biofertilizer for Sugar Cane (*Saccharum officinarum*)”, **Rs. 8022000/- (eight million twenty-two thousand)**, funded by Higher Education Commission (HEC), Pakistan

Honor and Awards

1. Award of Gold Medal/ Certificate of Excellence 2023-24
 - Associate Professor, Chemistry, KFUEIT, RYK
 - Associate Dean, faculty of Biological, Health Sciences & Technology, KFUEIT, RYK
 - Director, Institute of Biological Sciences, KFUEIT, RYK

Administrative Experience

1. Associate Dean, Faculty of Biological, Health Sciences & Technology, KFUEIT (2023 to date)
2. Director, Institute of Biological Sciences, KFUEIT (2020 to date).
3. Head of Department of Bioscience & Technology, KFUEIT (2020 to date).
4. Pioneer Coordinator, Chemistry Program, Department of Basic Sciences & Humanities, KFUEIT.
5. Additional Director Maintenance, KFUEIT.
6. Member, Maintenance Committee, KFUEIT.
7. Member of academic council of Khwaja Fareed University of Engineering and Technology (KFUEIT), RYK
8. Member of Board of Faculty at Khwaja Fareed University of Engineering and Technology (KFUEIT), RYK
9. Member of Board of Faculty (Biological, Health Sciences and Technology) at Khwaja Fareed University of Engineering & Information Technology (KFUEIT), Rahim Yar Khan
10. Chairman/Convener, Board of Study, Institute of Biological Sciences, KFUEIT.
11. Convener, DGRC, IBS, KFUEIT.
12. Convener, DTRC, IBS, KFUEIT.

13. Member of scholarship award committee of Khwaja Fareed University of Engineering and Technology (KFUEIT), RYK
14. Convener, Examination Vigilance and Monitoring Committee, KFUEIT.
15. Focal Person, CM Laptop Scheme 2025, KFUEIT, RYK
16. Super Focal Person, Prime Minister Youth Laptop Scheme Program (2019 to date).
17. Member, Marketing and Communication Committee, KFUEIT
18. Member, Scholarship Committee, KFUEIT.
19. Departmental Procurement Coordinator.
20. Member, Vigilance Committee examination, KFUEIT.
21. Member ORIC Committee (2017 to date).
22. Convener Departmental Quality Enhancement Cell (QEC) (2017 to date).
23. Member Admission Campaign committee (2018-to date).
24. Coordinator Department of Chemistry at KFUEIT (2016-17).
25. CBA Coordinator at KFUEIT (2016 – 2018).
26. Member, Local Purchase Committee at KFUEIT (2016-17).
27. Member/Secretary, Board of Studies, Department of Chemistry, at KFUEIT (2016 to date).
28. Member/Secretary, Departmental Curriculum Committee (DCC), Department of Chemistry, at KFUEIT (2017 to date).
29. Member, Departmental Graduate Committee (DGC) Committee.
30. Internship Coordinator (2016 to date).
31. Super Focal Person, Prime Minister's Laptop Scheme Phase IV & V (2017).
32. Member, Vigilance Committee (Exams) (2016 – 2019).
33. Member, University Convocation Committee, KFUEIT, Rahim Yar Khan
34. Member, Section Committee (2017).

RESEARCH STUDENTS

Twenty five MS Chemistry students have been supervised and 10 MS Chemistry student are under supervision.

MS RESEARCH STUDENTS SUPERVISED

Sr. No.	Registration No.	Student Name	Thesis Title	Thesis Status
1	MSCH181003	Nayab Khurshid	Phytochemical and Biological Screening of <i>Moringa Oleifera</i> plant	Completed
2	MSCH181022	Afshan Yaseem	Phytochemical and biological screening of <i>Heliotropium strigosum</i>	Completed
3	MSCH181014	Muhammad Bilal Hassan	Phytochemical and Biological Screening of <i>Saussurea albescens</i>	Completed
4	MSCH181045	Sajid Rashid	Isolation, characterization and biological evaluation of secondary metabolites from <i>cirsium arvense</i>	Completed

5	CHEM18151009	Jam Muhammad Saeed	Effect of industrial effluents generated by ethanol industries on the quality of ground water as well as surface water	Completed
6	MSCH181049	Muhammad Bashir Asif	Green Synthesis of Silver Nanoparticles with <i>Saussurea albescens</i> and their Activity	Completed
7	CHEM18151008	Muhammad Babar Rafique	Isolation, Characterization and Biological Evaluation of Secondary Metabolites from <i>Calotropis gigantea</i>	Completed
8	CHEM18151019	Kaynat Saleem	Synthesis and Preliminary Study of Novel Bismuth, Aluminium, Zirconate Containing Electrolyte Material	Completed
9	CHEM18151017	Zahid Hussain	Phytochemical and biological studies on the bark of <i>Eucalyptus camaldulensis</i>	Completed
10	CHEM18151057	Riffat Bano	– Synthesis, Characterization and Biological Evaluation of 2-Acetonaphthone SchiffBase Derivatives and its Complexes	Completed
11	CHEM19151040	Muhammad Ahmad	Synthesis, Characterization and Biological Evaluation of Schiff Base Derived from Aldehydes	Completed
12	CHEM19151075	Fizza Mazhar	Chemical and biological screening of n-hexane soluble part of the methanolic mxttract of <i>Moringa olifera</i>	Completed
13		Abeera Afzal	Chemical and biological investigation on the secondary metabolites of ethyl acetate soluble part of the methanolic extract of <i>Moringa olifera</i>	Completed
14		Hafiza Tahira Rabi	Chemical and Biological Screening of Ethyl acetate Soluble Part of the Methanolic Extract of <i>Withania coagulans</i>	Completed
15	CHEM19151033	Zainab Shakoor	Synthesis and characterization of multi-polyimide functionalities based organic-polyoxometalates polymer hybrids with perspective application in lithium ion batteries	Completed
16	CHEM19151016	Maryam Islam	Isolation, characterization and biological evaluation of secondary metabolites from the ethyl acetate soluble part of the methanolic extract of <i>Eucalyptus camaldulensis</i>	Completed
17	CHEM19151056	Rimsha Rao	Isolation of bioactive natural products from the n-hexane soluble part of the methanolic extract of <i>Eucalyptus camaldulensis</i>	Completed
18	CHEM19151047	Syeda Asfha Saher	Task1= Review on phytochemical and biological screening of <i>Olea ferruginea</i>. Title: Extraction and Identification of Secondary Metabolites from the Ethyl acetate Soluble Part of the Methanolic Extract of <i>Calotropis gigantea</i>	Completed
19	CHEM19151034	Tanzeel Shoukat	Task1= Review on phytochemical and biological screening of <i>Olea ferruginea</i>. Title: Chemical and Biological Screening of n-hexane Soluble Part of the Methanolic Extract of <i>Calotropis gigantea</i>	Completed
20	CHEM18151031	Ejaz Ahmed	Chemical and Biological Screening of n-hexane Soluble Part of the Methanolic Extract of <i>Leptadenia pyrotechnica</i>	Completed

Sr. No.	Registration No.	Student Name	Thesis Title	Thesis Status
21	CHEM211501055	Iqra Noor		Completed
22	CHEM211501022	Zoha Farooq		Completed
23	CHEM21150109	Quresha Fatima		Completed
24	CHEM211501079	Kishwar Sultana		Completed
25	CHEM211501020	Shahbaz Ali		Completed

MS RESEARCH STUDENTS SUPERVISED (In Process)

SEMINAR, CONFERENCES AND WORKSHOPS ATTENDED

- ❖ Capacity Building Program for University Management (December 23-28, 2024, National Academy of Higher Education, HEC, Islamabad, Pakistan).
- ❖ 20th International and 32nd National Chemistry Conference (November 02-04, 2022, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ National Consortium for Drug Free Community (July 19, 2022, University of Health Sciences, Lahore, Pakistan).
- ❖ Two Days Workshop on Structural Bioinformatics (December 16-17, 2021, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ International Conference on Physical Sciences & Engineering 2021 (December 14-16, 2021, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ Biotechnology for Industry and Business (November 04, 2021, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ Functional Nanomaterials for Biosensing and Drug Delivery Application (June 23, 2021, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ Concrete Actions Preventing Food Waste to Achieve Zero Hunger (October 16, 2019, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).

- ❖ Food Safety and Personal Hygiene (September 19, 2019, Khwaja Fareed University of Engineering & Information Technology and Jallundhar Foods, Rahim Yar Khan, Pakistan).
- ❖ How to Examine Bids (August 31, 2019, Institute of Tender Management, Lahore, Pakistan).
- ❖ How to Make Specifications and Evaluation Criteria (August 30, 2019, Institute of Tender Management, Lahore, Pakistan).
- ❖ Procurement Planning (August 29, 2019, Institute of Tender Management, Lahore, Pakistan).
- ❖ PPRA Rules/ New Amendments in Punjab PPRA Rules (August 28, 2019, Institute of Tender Management, Lahore, Pakistan).
- ❖ Literature Searching and Organizing using Emerging Technologies (November 30, 2019, Pakistan Scientific and Technological Information Center, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ Testing and Evaluation Under Transforming English Language Skills (August 15-17, 2018, Khwaja Fareed University of Engineering & Information Technology, Rahim Yar Khan, Pakistan).
- ❖ International Conference Recent Challenges and Chemical Sciences (December 22, 2017, Bahauddin Zakriya University, Multan, Pakistan).
- ❖ 3rd International Symposium on Biomedical Materials: Recent Advances and Challenges (December 18-20, 2012, King Edward Medical University & de'Montmorency College of Dentistry, Lahore, Pakistan).
- ❖ 10th International 22nd National Chemistry Conference (November 21-23, 2011, University of Agriculture, Faisalabad, Pakistan).
- ❖ 9th International 21st National Chemistry Conference (March 14-16, 2011, University of Karachi, Pakistan).
- ❖ 12th International Symposium on Natural Product Chemistry (November 22-25, 2010, University of Karachi, Pakistan).
- ❖ 8th International 20nd National Chemistry Conference (February 15-17, 2010, Quaid IAzam University, Islamabad, Pakistan).
- ❖ 18th National Chemistry Conference (February 25-27, 2008, University of Punjab, Lahore, Pakistan).

Analytical/Microbiological Chemistry Skills

- Experience in working with *HPLC, IR, UV, POLARIMETERY, and NMR* techniques

Computer Literacy

Proficient in working with:

- *Microsoft Office (Word, Excel, Power Point).*
- *Internet, BASIC language.*
- *Microsoft PowerPoint,*
- *Chem. window,*
- *Chem. Draw,*
- *ACD lab.,*
- *Excel and Internet Tools.*

Research Interests

- Chemical and Biological studies on medicinal plants.
- Isolation, purification and spectroscopic studies of secondary metabolites from medicinal plants.
- Pharmacological and adverse effects of herbal drugs.
- Spectroscopy
- Chromatography
- HPLC
- Bibliography/References Software, End-Note®.

Selected Research Publications

Year 2025

1. Ghulam Mustafa Kamal, Jalal Uddin, Mufarreh Asmari, Ayesha Noreen, Atif Liaqat, Asma Sabir, **Jallat Khan**, Rabia Iqbal, Aanchal Sharma, Gulzar Ahmad Nayik, Robert Mugabi, Syed Ghulam Musharraf, Natural polyphenols as a promising aquatic food preservative: A concurrent review, *Journal of Agriculture and Food Research*, **2025**, 22, 102046, ISSN 2666-1543,
<https://doi.org/10.1016/j.jafr.2025.102046>
2. Madiha Zaynaba, Yasir Sharif, **Jallat Khan**, Rashid Al-Yahyaid, Monther Sadder, Munawar Ali, Rania Ali El Hadi Mohamed, Genome-wide analysis and expression pattern profiling of the DUF789 gene family in soybean (*Glycine max* L.), *South African Journal of Botany*, **2025**, 180, 1-11.
<https://doi.org/10.1016/j.sajb.2025.02.033>

3. Hazqail Umar Khan, Muhammad Shahid Cholistani, Eliza Iqbal, Kashif Kareem, Hafiz Muhammad Kashif Zahoor, Muhammad Farhan, Hafiz Shozab Ahmad Khan, Muhammad Pervaiz Bhatti, **Jallat Khan**, Comprehensive analysis of antibacterial and antioxidant properties in Calotropis gigantean leaf extracts, *International Journal of Secondary Metabolite*, **2025**, 12 (1), 33-45.

<https://doi.org/10.21448/ijsm.1505737>

Year 2024

1. Naseem Akhter¹, Musarat Batool, Asma Yaqoob, Muhammad Shahid, Fageer Muhammad, **Jallat Khan**, Muhammad Ahmad Mudassir, Malaga-Tobola & Marek Gancarz, Potential biological application of silver nanoparticles synthesized from Citrus paradisi leaves, *Scientific Reports*, **2024**.
<https://doi.org/10.1038/s41598-024-79514-9>
2. Syed Sabir Ali Shah, Madiha Zaynab, **Jallat Khan**, Bushra Munir, Hafsa Ilyas, Nimra, Arshad, Abdullah Sethar, Tamseel Saleem, Kashif Prince, Rabab Akhtar, Muhammad Arif, Rizwan¹, Anam Aftab, Exploring KRAS Expression Heterogeneity In Esophageal Carcinoma: Implications For Prognosis, Therapy, And Diagnosis, *Kurdish Studies*, **2024**, 12 (5), 721-730.
10.53555/ks.v12i5.3319
3. Madiha Zaynab, **Jallat Khan**, Rashid Al-Yahyai, Monther Sadler, Shuangfei Li, Toxicity of coumarins in plant defense against pathogens, *Toxicon*, **2024**, 250
<https://doi.org/10.1016/j.toxicon.2024.108118>.
4. Hafiza Ayesha Nazir, Nusrat Shafiq, Simone Brogi, Zill-i-Huma Nazli, **Jallat Khan**, Maryam Rashid, Shagufta Parveen, Exploring Type II Diabetes Inhibitors from Genus Daphne Plant-species: An Integrated Computational Study, *Combinatorial Chemistry & High Throughput Screening*; **2025**, 28(8)
[DOI: 10.2174/0113862073262227231005074024](https://doi.org/10.1016/j.toxicon.2024.108118)
5. Muhammad Abdullah, Zain Ali, Muhammad Talha Yasin, Kinza Amanat, Fatima Sarwar, **Jallat Khan**, Khurshid Ahmad, Advancements in sustainable production of biofuel by microalgae: Recent insights and future directions, *Environmental Research* **2024**, 262 (2).
<https://doi.org/10.1016/j.envres.2023.117949>
6. Muhammad Imran Tousif, Zaheer Abbas, Mamona Nazir, Muhammad Saleem, Saba Tauseef, Areeba Hassan, Sajid Ali, Maqsood Ahmed, **Jallat Khan**, Gokhan Zengin, Abeer Hashem, Khalid F. Almutairi, Graciela Dolores Avila-Quezada & Elsayed Fathi Abd-

Allah, Secondary metabolic profiling, antioxidant potential, enzyme inhibitory activities and in silico and ADME studies: a multifunctional approach to reveal medicinal and industrial potential of *Tanacetum falconeri*, ***BMC Complementary Medicine and Therapies***, **2024** 24(167).

<https://doi.org/10.1186/s12906-024-04459-5>

7. Jianzi Huang, Madiha Zaynab, Yasir Sharif, **Jallat Khan**, Rashid AlYahyai, Monther Sad der, Munawar Ali, Saber R. Alarab, Shuangfei Li. Tannins as antimicrobial agents: Understanding toxic effects on pathogens, ***Toxicon***, **2024**, 247

<https://doi.org/10.1016/j.toxicon.2024.107812>

8. Tehseen Sajid, **Jallat Khan**, Zulqarnain Abbas, Hafiz Muhammad Sultan, Mahnoor Mazhar, Muhammad Zubair, Muhammad Dilshad, Kashif Kareem, Targeting Cancers: Uncovering the Potential Roles of Potato Tissue Culture as Anti-Cancer Agents, ***Proceedings of Anticancer Research***, **2024**, 8(3)

<http://ojs.bbwpublisher.com/index.php/PAR>

9. Zain Ali, Muhammad Abdullah, Muhammad Talha Yasin, Kinza Amanat, Khurshid Ahmad, Ishfaq Ahmed, Muthur Mansoor Qaisrani, **Jallat Khan**, Organic waste-to-bioplastics: Conversion with eco-friendly technologies and approaches for sustainable environment, ***Environmental Research***, **2024**, 244.

<https://doi.org/10.1016/j.envres.2023.117949>

10. Shagufta Yasmin, Muhammad Afzal, Anum Nawaz, Maria Mehmood, NaheedBano, Sanobar Gull, Saud Farasat, Abdullah Sethar, Hafsa Yasmin, NabilaFarah, **Jallat Khan**, Identification Of Key Molecular Targets And Therapeutic Interventions In Alzheimer's Disease: An Integrative Analysis Of Differentially Expressed Genes And Regulatory Drugs, ***African Journal of Biomedical Research***, **27,3s**, 5510-5519

<https://doi.org/10.53555/AJBR.v27i3S.3370>

Year 2023

1. Saddam Hussain, Muhammad Talha Yasin, Khurshid Ahmad, Suleman Khan, Rasheed Ahmad, **Jallat Khan**, Abdul Ghani, Muhammad Musaddiq Shah, Muzzamil Ahmed, Hasnat Tariq, Hamid Rehman, Adil Hussain, Muhammad Faheem, Syed Ali Imran Bokhari, Enhancement effect of Ago nanoparticles on fermentative cellulase activity from thermophilic *Bacillus subtilis* Ag-PQ, ***Journal of Genetic Engineering and Biotechnology***, **2023**, 21(151).

<https://doi.org/10.1186/s43141-023-00619-1>

2. Muhammad Imran Tousif, Muhammad Saleem, Saba Tauseef, Mamona Nazir, Tahira Ruby, Reaz Uddin, Sharon Elaine D'souza, Muhammad Aleem Ashraf, Ghulam Mustafa Kamal, **Jallat Khan**, Gokhan Zengin, Unrivalled insight into potential biopharmaceutical application of *Saussurea albescens* (DC.) Sch.Bip.: Chemical profiling, antioxidant and enzyme inhibition activities and in silico studies, *Biocatalysis and Agricultural Biotechnology*, 2023, 54, 102964
<https://doi.org/10.1016/j.bcab.2023.102964>
3. Naqqash, T., Aziz, A., Gohar, M., **Khan, Jallat.**, Ali, S., Radicetti, E., Haider, G. Heavy metal-resistant rhizobacteria fosters to alleviate the cadmium toxicity in Arabidopsis by upregulating the plant physiological responses. *International Journal of Phytoremediation*, 2024 26(4).
<https://doi.org/10.1080/15226514.2023.2253923>
4. Waseem Ahmed, Adnan Noor Shah, Asad Abbas, Muhammad Nawaz, Abdul Qayyum, Muhammad Umair Hassan, Muthar Mansoor Qaisrani, **Jallat Khan**, Role of Plant Bio-stimulants and Their Classification, Biofertilizers for Sustainable Soil Management, **2023 Book Chapter**
5. Kamal GM, Nazi N, Sabir A, Saqib M, Zhang X, Jiang B, **Khan J**, Noreen A, Uddin J, Murtaza S. Yield and Chemical Composition of Ginger Essential Oils as Affected by Inter-Varietal Variation and Drying Treatments of Rhizome. *Separations*. **2023**, 10(186)
<https://doi.org/10.3390/separations10030186>

Year 2022

1. Muhammad Aleem Ashraf, Hafiza Kashaf Tariq, Xiao-Wen Hu, **Jallat Khan** and ZhiZou. Computational Biology and Machine Learning Approaches Identify Rubber Tree (*Hevea brasiliensis* Muell. Arg.) Genome Encoded MicroRNAs Targeting Rubber Tree Virus 1. *Applied Sciences*. **2022**, 12, 12908.
<https://doi.org/10.3390/app122412908>
2. Ibrahim, Muhammad, Munir, Shehla, Ahmed, Sarfraz, Chughtai, Adeel Hussain, Ahmad, Waqas, **Khan, Jallat**, Murtey, Mogana Das, Ijaz, Hira, Ojha, Suvash Chandra, Gliclazide in Binary and Ternary Systems Improves Physicochemical Properties, Bioactivity, and Antioxidant Activity, *Oxidative Medicine and Cellular Longevity*, **2022**, 2100092, 20 pages.
<https://doi.org/10.1155/2022/2100092>

3. Khursheed A, Ahmad S, Saleem M, Khan K-u-R, **Khan Jallat**, Orhan IE, Abaci N, Imran M, Tauseef S, Uddin R, Yawer MA, Tousif MI, Ojha SC and Khurshid U, Phytochemical profiling, in vitro biological activity, docking studies, and cytotoxicity assessments of *Rondeletia odorata* Jacquin: An unexplored plant of the coffee family. **Frontiers in Chemistry**. **2022** 10:1017577.
<https://doi.org/10.3389/fchem.2022.1017577>
4. Muhammad Ashfaq Aslam, Shakil Ahmed, Muhammad Saleem, Anis Ali Shah, Adnan Noor Shah, Mohsin Tanveer, Hayssam M. Ali, Rehab Y. Ghareeb, Mohammad E. Hasan and Jallat Khan, Quercetin ameliorates chromium toxicity through improvement in photosynthetic activity, antioxidative defense system; and suppressed oxidative stress in *Trigonella corniculata* L. **Frontiers in plant Science**. **2022** 13:956249.
<https://doi.org/10.3389/fpls.2022.956249>
5. Muhammad Aleem Ashraf, Hafiza Kashaf Tariq, Xiao-Wen Hu, **Jallat Khan** and ZhiZou, Potential targets for evaluation of sugarcane yellow leaf virus resistance in sugarcane cultivars: in silico sugarcane miRNA and target network prediction. **Biotechnology & Biotechnological Equipment**, **2022**, 35 (1), 1990-2001.
<https://doi.org/10.1080/13102818.2022.2041483>
6. Rifat Jawaria, Muhammad Khalid, **Jallat Khan**, Muhammad Usman Khan, Ataulpa Albert Carmo Braga, Sidra Zahoor, Mohammed Mujahid Alam, Muhammad Imran, A facile synthesis and structural elucidation for furfural based chromophores: Prediction of linear and nonlinear optical properties, **Journal of Molecular Structure**, **2022**, 1249,
<https://doi.org/10.1016/j.molstruc.2021.131543>.
7. **Khan, J.** et al. (2022). Cultural and Socio-Economic Perspective of Some Promising Edible Plants from Northern Pakistan. In: Masoodi, M.H., Rehman, M.U. (eds) **Edible Plants in Health and Diseases**. Springer, Singapore.
https://doi.org/10.1007/978-981-16-4880-9_4

Year 2021

1. **Jallat Khan**, Muhammad Imran Tousif, Muhammad Saleem, Mamona Nazir, Saba Touseef, Kaynat Saleem, Sumreen Asim, Ahmad Khan, Muhammad Adnan Asghar, Gokhan Zengin, Nusrat Shafiq, Muthar Mansoor Qaisrani, Insight into the phytochemical composition, biological activities and docking studies of *Moringa oleifera* Lam. to authenticate its use in biopharmaceutical industries, **Industrial Crops and Products**, **2021**, 172, 114042,

<https://doi.org/10.1016/j.indcrop.2021.114042>.

2. M Afzaal, A Abdullah, S Ahmed, M Ibrahim, J Khan, SA Mirza, A Aftab, Evaluation Of Ceiba Pentandra For The Removal Of Residual Oil From Pome (Palm Oil Mill Effluent) By Using Factorial Design Bioreactor, *Pakistan Journal of Science*, **2021**, *73* (3)
3. Sumreen Asim, Muhammad Sufyan Javed, **Jallat Khan**, Muhammad Khalid, Syed Shoaib Ahmad Shah, Muhammad Idrees, Muhammad Imran, Muhammad Usman, Shahid Hussain, Israr Ahmad, Tahani Saad Al Garni. Energy storage performance of binder-free ruthenium-oxide nano-needles based free-standing electrode in neutral pH electrolytes. *Electrochimica Acta*. **2021**, 378.
<https://doi.org/10.1016/j.electacta.2021.138139>.
4. Nusrat Shafiq, Uzma Arshad, Nazia Yaqoob, **Jallat Khan**, Ahmad Khan, Kaynat Saleem, Maryam Rashid, Naila Rafiq, Rashid Ahmad, Irum Javaid, Sadia Noreen, Muhammad Bilal. Structure-based experimental and theoretical analysis of *Ricinus communis* for their HepG2 human carcinoma cell line inhibitors. *Process Biochemistry*. **2021**, 152-160.
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