

Dr. Muhammad Kamran Khan

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Experienced Professional with 14+ years of proven success in Research & Development of Food sector



Educational/Professional Qualification

Jul 2014 - Dec 2014	Post-doctorate Project title: Bioactive potential of a fermented product made from germinated lupin seeds Organization: Department of Nutrition, Dietetics and Food Technology, School of Public Health, Curtin University, Perth, Australia. Project lead: Prof. Vijay Jayasena (v.jayasena@westernsydney.edu.au)
Jan 2011 - Dec 2011	Post-doctorate Project title: Valorisation of Amazonian palm fruits especially present on French Guiana territory Organization: UMR QualiTrop (Quality of Tropical Plants), University of West Indies and French Guiana, France Project lead: Dr. Jean-Charles Robinson (jean-charles.robinson@guyane.univ-ag.fr)
2007-2010	Doctorate in Food Chemistry Thesis title: Polyphenols from citrus fruits (flavanones); ultrasound-assisted extraction from fruits (glycosides), chemical synthesis of human metabolites (glucuronides), physico-chemical properties (binding to serum albumin) Organization: SQPOV (Security and Quality of Plant Products), University of Avignon, France. Director: Olivier Dangles (olivier.dangles@univ-avignon.fr)
2006-2007	Master in Food Science and Bio-Processing AgroParisTech, France
2004-2006	M.Sc. (Hons.) Food Science & Technology University of Agriculture Faisalabad, Pakistan
2000-2004	B.Sc. (Hons.) Agriculture (Specialty: Food Science & Technology) University of Agriculture Faisalabad, Pakistan

Professional Experience

September 2024 to date: Manager Innovation & Commercialization, Office of Research, Innovation & Commercialization (ORIC), GCUF

- Organize Industry-Academia Linkage meetings to fill the gap
- Representation of GCUF Innovation Projects in National Expos
- Linked trainees to SMEs and food industries for job placements and internships
- Led industry-academia collaborations to modernize small-scale food production

- ◆ **March 2012 to date:** Assistant/Associate Professor, Department of Food Science, Government College University Faisalabad (GCUF), **Pakistan**
 - Developed various novel agri-food products as part of research work; Developed collaboration with agri-food industries; Established FIT (Food Innovative Technologies) centre; Execution of research projects; Managed budget from procurement of lab equipment to hiring of lab personnel; Trained young professionals for the development of creative agri-food products.
 - **PhD Students Supervised**
 - Aliza Zulifqar PhD Food Science & Technology
Thesis title: Influence of ultrasound on structural and functional properties of Moringa protein – polyphenol conjugates
 - M. Naveed Asif PhD Food Science & Technology
Thesis title: Modification of *Moringa* seed protein using ultrasound for improved functional quality
 - Zohaib Hassan PhD Food Science & Technology
Thesis title: Modification of chia seed dietary fibre using novel technologies to improve its functional and bioactive properties
 - Khalil Ahmad (Reg. # 2015-GCUF-1801) PhD Food Science & Technology
Thesis title: Quality and Nutritional Characterization of Fruit Juice Processed through Innovative vs. Conventional Technologies
 - Saira Sattar (Reg. # 2012-GCUF-05200) PhD Food Science & Technology
Thesis title: Impact of Ultrasound & Microwave Treatment on the Quality of Peach Based Beverage
 - Sadia Hassan (Reg. # 2011-GCUF-05530) PhD Food and Nutrition
Thesis title: Bio-accessibility of phytochemicals from Sorghum (*Sorghum bicolor* (L.) Moench) sprouts treated with novel technologies
 - **32 MS Students Supervised**
 - **National and International External Examiner for MS/PhD Thesis Evaluation in Food Science & Technology field**
- ◆ **July 2014 to December 2014:** Endeavour Research Fellow, Nutrition, Dietetics and Food Technology Laboratory, School of Public Health, Curtin University, Perth, **Australia**
 - Development of fermented product from germinated lupin; Characterization of carob kibble; Participated in “Reduce Food Waste Forum” at Murdoch University.
- ◆ **January 2011 to December 2011:** Research Fellow, UMR QualiTrop Laboratory, University of West Indies and French Guiana, **France**
 - Visits to different local processors of palm fruits; Characterization of Amazonian Palm fruits and development of their beverages; Maintenance of analytical Hi-Tech lab; Engagement of Master and PhD students.

Scientific Outcomes

Projects

- ◆ **PAK-US NATURAL SCIENCES LINKAGE PROGRAMME (NSLP)** by Pakistan Science Foundation - 2021
Title: Enrichment of Omega (Ω) Fatty Acids in Edible Oils using Ultrasound Technology
Amount: 8520 USD; **Duration:** 2 years; **Status:** In progress; **Role:** Principal Investigator

- ◆ **USAID-GAIN Pakistan Regional Food Fortification Project** by USAID-GAIN (Global Alliance for Improved Nutrition) - 2017
Title: A market assessment on the presence and level of Vitamin A fortificant in Vanaspati/Ghee and cooking oil in Pakistan
Duration: 1 year; **Status:** Completed; **Role:** Team Member

- ◆ **NATIONAL RESEARCH PROGRAM FOR UNIVERSITIES** by Higher Education Commission of Pakistan - 2017
Title: Probing the effect of different extraction techniques for the formulation of polyphenol based dietary interventions to modulate various metabolic syndromes
Amount: 7365 USD; **Duration:** 2 years; **Status:** Completed; **Role:** Co-Principal Investigator

- ◆ **NATIONAL RESEARCH PROGRAM FOR UNIVERSITIES** by Higher Education Commission of Pakistan - 2014
Title: Impact of fruit processing modes on extracted juice quality: Conventional vs. Innovative technologies
Amount: 22,275 USD; **Duration:** 2 years; **Status:** Completed; **Role:** Principal Investigator

- ◆ **START-UP RESEARCH GRANT** by Higher Education Commission Pakistan - 2012
Title: Bioactive potential and stability of anthocyanin contents from *Syzygium cumini* (Jaman/Jamun) at its different ripening stages
Amount: 1800 USD; **Duration:** 9 months; **Status:** Completed; **Role:** Principal Investigator

Guest Editor

Lead Guest Editor in special issue “Interaction of polyphenols with food components: safety, quality and nutritional aspects” of International Journal of Food Science and Technology (Impact Factor: 3.612)

Lead Guest Editor in special issue “Quality of Food Products processed through Novel Techniques: Extraction, Preservation, Processing and Modification” of Journal of Food Quality (Impact Factor: 3.200)

Lead Guest Editor in special issue “Modification and Valorisation of Food Ingredients with Non-thermal Technologies” of Journal of Food Quality (Impact Factor: 3.200)

Lead Guest Editor in special issue “Phenolic Compounds as a Benchmark for Food Quality” of Journal of Food Quality (Impact Factor: 3.200)

Publications

- ◆ M.H. Alam, M.H. Ahmad, M. Imran, M.U. Rehman, M.I. Khan, **M.K. Khan***, W. Khalid, S.A. Alharbi, H.M. Aljawdah, F.K. Madilo
Production of Stevia-Based Persimmon Fruit Leather by Microwave Oven and Its Optimization With Response Surface Methodology
Food Science & Nutrition, 2025; 13:e70036.
- ◆ Zulifqar, M. Imran, M.H. Ahmad, S.S. Sablani, & **M.K. Khan***
Ultrasound-assisted Moringa Protein Isolate-Gallic Acid Conjugates: Functional and Structural Properties
International Journal of Food Science and Technology, 2024, 59, 7102–7112.

- ◆ A. Tahir, R.S. Ahmad, **M.K. Khan**, M. Imran, & G.G. Hailu
Optimization of Production Parameters for Fabrication of Gum Arabic/Whey Protein-Based Walnut Oil Loaded Nanoparticles and Their Characterization
ACS Omega, 2024, 9, 22839–22850.
- ◆ M.N. Asif, M. Imran, M.H. Ahmad, **M.K. Khan***, & G.G. Hailu
Physicochemical and Functional Properties of Moringa Seed Protein Treated with Ultrasound
ACS Omega, 2024, 9, 4102–4110.
- ◆ **M.K. Khan**, H. Mazhar, U. Shehzadi, M.H. Ahmad, M.T. Nadeem, R.S. Ahmad, M. Imran, W. Khalid, M.I. Khan, M.Z. Khalid, S.A. Alharbi, M.J. Ansari & E.L. Mukonzo
The effect of ultrasound-assisted extraction process on techno-functional properties of protein from Moringa oleifera leaves
Cogent Food & Agriculture, 10:1, 2436645.
- ◆ F. Afzal, M. Imran, **M.K. Khan**, M.H. Ahmad & G.G. Hailu
Spray drying process impact on encapsulation and acceptability of *Nigella sativa* Oil
Cogent Food & Agriculture, 2024, 10:1, 2330610.
- ◆ A. Shoukat, M. Imran, **M.K. Khan**, M.H. Ahmad, R.S. Ahmad, M.F. Ramadan, M. Nadeem, A. Yasmin, M.A. Rahim, M.I. Khan
Impact of spray drying operating conditions on yield, secondary metabolites, antioxidant potential and storage quality of grape (*Vitis vinifera* L.) pomace powder
South African Journal of Botany, 2024, 169:383-395.
- ◆ K. Fatima, M. Imran, M.H. Ahmad, **M.K. Khan***, W. Khalid, A. AL-Farga, W.S. Alansari, G. Shamlan, & A.A. Eskandrani
Ultrasound-Assisted Extraction of Protein from *Moringa oleifera* Seeds and its Impact on Techno-Functional Properties
Molecules, 2023, 28(2554), 1-17.
- ◆ A. Adnan, M. Nadeem, M.H. Ahmad, M. Tayyab, **M.K. Khan**, M. Imran, A. Iqbal, M.A. Rahim & C.G. Awuchi
Effect of lactoferrin supplementation on composition, fatty acids composition, lipolysis and sensory characteristics of cheddar cheese
International Journal of Food Properties, 2023, 26(1), 437–452.
- ◆ M.A. Rahim, M. Naeem, K. Khalid, M. Imran, **M.K. Khan**, M.I. Khan, M.U. Nisa, M. Sarwar, C.G. Awuchi
Effects of different levels of egg protein replacement in weaned diets on hematology, kidney functions, and immunity biomarkers
Food Science and Nutrition, 2023, DOI: 10.1002/fsn3.3204 .
- ◆ **M.K. Khan***, C. Le Bourvellec & E.S. Munoz
Editorial: Interaction of polyphenols with food components: Safety, quality and nutritional aspects
International Journal of Food Science and Technology, 2022, 57, 6891–6892.
- ◆ M.H. Ahmad, N. Saeed, M. Imran, **M.K. Khan***, N. Muhammad, A. Sahar & M. I. Khan

Rapid and nondestructive characterization of multiple frying sunflower oil blend using fourier transform infrared spectroscopy and chemometrics.

International Journal of Food Properties, 2022, 25(1), 214–226.

- ◆ T. Hussain, M. Imran, Z. Mushtaq, M. I. Khan, M. H. Ahmad, Mahr-Un-Nisa and **M. K. Khan***
Heavy metal biosorption by polyphenol-free banana peel powder
Journal of Animal & Plant Sciences, 2022, 32(2), 507-514.
- ◆ M. Waheed, Z. Mushtaq, M. Imran, **M. K. Khan**
Evaluation of physicochemical and sensorial properties of thyme (*Thymus vulgaris* L.) leaves powder supplemented cookies
Journal of Food Processing & Preservation, 2022, 46, e16321.
- ◆ M.H. Ahmad, Z. Shahbaz, M. Imran, **M.K. Khan***, N. Muhammad, S. Iqbal, W. Ahmed & T. Ahmad
Monitoring of frying process in canola oil blend using fourier transform infrared and chemometrics techniques
Food Science and Nutrition, 2021, 9, 6089–6098.
- ◆ Z. Hassan, M. Imran , M. H. Ahmad, & **M.K. Khan***
Ultrasound-assisted modification of insoluble dietary fiber from chia (*Salvia hispanica* L.) seeds
Journal of Food Quality, 2021, Article ID 5035299, 10 pages.
- ◆ M. Ali, M. Imran, **M.K. Khan**, M.H. Ahmad & N. Muhammad
Functional and oxidative quality characterization of spray-dried omega-3-enriched milk powder
Journal of Food Quality, 2021, Article ID 6693960, 1-15.
- ◆ A. Tahir, R.S. Ahmad, M. Imran, M.H. Ahmad, **M.K Khan**, N. Muhammad, M.U. Nisa, M.T. Nadeem, A. Yasmin, H.S. Tahir, A. Zulifqar & M. Javed
Recent approaches for utilization of food components as nano-encapsulation: a review
International Journal of Food Properties, 2021, 24 (1), 1074-1096.
- ◆ F. Manzoor, M.U. Nisa, H.A. Hussain, **M.K. Khan**, R.S. Ahmad, N. Ahmad, M. Imran & H. Umbreen
Effect of hydrolysable tannin on nutrient intake obesity and other associated metabolic risk factors in polycystic rats
Translational Medicine Communications, 2021, 6:10.
- ◆ M.A. Haleem, S.A. Khan, **M.K. Khan**, R.S. Ahmad, S.A.R. Naqvi, M. Imran, M.H. Ahmad, H. Anwar & M.U Nisa
Potential protective role of curcumin powder to regulate arsenicinduced hepatorenal toxicity and hyperlipidemic metabolic dysfunction in rat model
Pakistan Journal of Pharmaceutical Sciences, 2021, 34 (4(Suppl)), 1535-1540.
- ◆ S. Hassan, M. Imran, M.H. Ahmad, M.I. Khan, C. Xu, **M.K. Khan*** & N. Muhammad
Phytochemical characterization of ultrasound processed sorghum sprouts for the use in functional foods
International Journal of Food Properties, 2020, 23(1), 853–863.
- ◆ S. Sattar, M. Imran, Z. Mushtaq, M.H. Ahmad, M.S. Arshad, M. Holmes, J. Maycock, M.F. Nisar, **M.K. Khan***

Retention and stability of bioactive compounds in functional peach beverage using pasteurization, microwave and ultrasound technologies

Food Science and Biotechnology, 2020, 29(10), 1381-1388.

- ◆ K. Ahmad, M. Imran, T. Ahmad, M. H. Ahmad, **M.K. Khan***
Impact of ultrasound processing on physicochemical and bioactive attributes of grape based optimized fruit beverage
Pakistan Journal of Agricultural Sciences, 2020, 57(4), 1117-1124.
- ◆ F. Komal, **M.K. Khan**, M. Imran, M.H. Ahmad, H. Anwar, U.A. Ashfaq, N. Ahmad, A. Masroor, R.S. Ahmad, M. Nadeem and M.U. Nisa
Impact of Different Omega -3 Fatty acid Sources on Lipid, Hormonal, Blood Glucose, Weight Gain and Histopathological Damages Profile in PCOS Rat Model
Journal of Translational Medicine, 2020, 18(349):1-11.
- ◆ R. Ullah, M. Nadeem, M. Imran, M.K. Khan, Z. Mushtaq, M. Asif and A. Din
Effect of Microcapsules of Chia Oil on Ω -3 Fatty Acids, Antioxidant Characteristics and Oxidative Stability of Butter
Lipids in Health and Disease, 2020, 19(10):1-10.
- ◆ M.Z. Shahid, M. Imran, **M.K. Khan**, M.H. Ahmad, M. Nadeem, N. Muhammad and A. Yasmin
Omega-3 Fatty acids Retention, Oxidative Quality and Sensoric Acceptability of Spray Dried Flaxseed Oil
Journal of Food Quality, 2020, ID 7286034:1-13.
- ◆ Z. Yaqoob, M.S. Arshad*, **M.K. Khan**, M. Imran, M.H. Ahmad, S. Ahmad, M. Nisa, F.M. Anjum, U. Khan, W. Khalid, H.A.R. Suleria
Ultrasound-assisted extraction of guava and papaya leaves for the development of functional shrimp patties
Food Science and Nutrition, 2020, 8(7) 3923-3935.
- ◆ S. Sattar, M. Imran, Z. Mushtaq, M.H. Ahmad, M. Holmes, J. Maycock, M.I. Khan, A. Yasmin, **M.K. Khan***, N. Muhammad*
Functional quality of optimized peach-based beverage developed by application of ultrasonic processing
Food Science and Nutrition, 2019, 7(11) 3692-3699.
- ◆ **M.K. Khan**, M.N. Asif, M.H. Ahmad*, M. Imran, M.S. Arshad, S. Hassan, M.I. Khan, M. Nisa, M.M. Iqbal, N. Muhammad*
Ultrasound-assisted optimal development and characterization of stevia-sweetened functional beverage
Journal of Food Quality, 2019, Article ID 5916097, 1-6.
- ◆ S. Sattar, T. Ahmad, M. Nisa, M. Imran, M. Holmes, J. Maycock, M. Nadeem, **M.K. Khan***
Microwave processing impact on physicochemical and bioactive attributes of optimized peach functional beverage
Journal of Food Processing & Preservation, 2019, 43:e13952.
- ◆ S. Hassan, N. Ahmad, T. Ahmad, M. Imran, C. Xu and **M. K. Khan***
Microwave Processing Impact on the Phytochemicals of Sorghum Seeds as Food Ingredient

- ◆ M.S. Arshad, S.M. Batool, **M.K. Khan**, M. Imran, M.H. Ahmad, F.M. Anjum, S. Hussain
Bio-evaluation of functional date bars using rats as model organism against hypercholesterolemia
Lipids in Health and Disease, 2019, 18:148.
- ◆ M.N. Akhtar, Z. Mushtaq, N. Ahmad, **M.K. Khan**, M.H. Ahmad, A.I. Hussain, M. Imran
Optimal ultrasound-assisted process extraction, characterization, and functional product development from flaxseed meal derived polysaccharide gum
Processes, 2019, 7, 189.
- ◆ I.T. Khan, M. Nadeem, M. Imran, M. Asif, **M.K. Khan**, A. Din and R. Ullah
Triglyceride, fatty acid profile and antioxidant characteristics of low melting point fractions of buffalo milk fat
Lipids in Health and Disease, 2019, 18:59.
- ◆ M. Ajmal, M. Nadeem, M. Imran, Z. Mushtaq, M.H. Ahmad, M. Tayyab, M.K. Khan and N. Gulzar
Changes in Fatty acids Composition, Antioxidant Potential and Induction Period of UHT-Treated Tea Whitener, Milk and Dairy Drink
Lipids in Health and Disease, 2019, 18(213):1-9.
- ◆ M. Ali, M. Imran, M. Nadeem, **M.K. Khan**, M. Sohaib, H.A.R. Suleria and R. Bashir
Oxidative stability and Sensoric acceptability of functional fish meat product supplemented with plant-based polyphenolic optimal extracts
Lipids in Health and Disease, 2019, 18:35.
- ◆ A. Masroor, M. Nisa, **M.K. Khan**, U.A. Ashfaq, F. Komal
Inulin, fructooligosaccharide and lactobacillus acidophilus affects body weight gain and blood metabolites in polycystic ovarian syndrome rats
International Journal of Agriculture & Biology, 2019, 22:787-792.
- ◆ M.Z. Shahid, M. Imran, **M.K. Khan**, A.I. Hussain
In vitro release behaviour of spray dried flaxseed oil microcapsules for application in food system
International Journal of Biosciences, 2019, 14 (5) 205-216.
- ◆ S.H. Jafary, R.S. Ahmad, **M.K. Khan**, A.I. Hussain
Exploring the vicissitudes in composition of various mango varieties of Pakistan subjected to different drying techniques
International Journal of Biosciences, 2019, 15 (3) 243-250.
- ◆ F. Komal, M. Nisa, **M.K. Khan**, U.A. Ashfaq, F. Manzoor, A. Masroor, R.M. Amir, N. Huda, R. Kausar, M. Nadeem
Evaluation of the efficacy of different sources of omega-3 fatty acids in polycystic ovarian syndrome (PCOS) induced rats
Pakistan Journal of Pharmaceutical Sciences, 2019, 32:1781-1788.
- ◆ **M. K. Khan**, W. Karnpanit, S.M. Nasar-Abbas, Zill-E-Huma and V. Jayasena*
Development of a fermented food with higher phenolic compounds and lower anti-nutritional factors from germinated lupin (*Lupinus angustifolius* L.)
Journal of Food Processing & Preservation, 2018, 42 (12) e13450.

- ◆ Zill-e-Huma, V. Jayasena, S. M. Nasar-Abbas, M. Imran and **M. K. Khan***
Process optimization of polyphenol extraction from carob (*Ceratonia siliqua*) kibbles using microwave-assisted technique
Journal of Food Processing and Preservation, 2018, 42 (2) e13450.
- ◆ **M. K. Khan***, K. Ahmad, S. Hassan, M. Imran, N. Ahmad, C. Xu
Effect of novel technologies on polyphenols during food processing
Innovative Food Science and Emerging Technologies, 2018, 45, 361–381.
- ◆ S. Hassan, M. Imran, N. Ahmad and **M. K. Khan***
Lipids Characterization of Ultrasound and Microwave Processed Germinated Sorghum
Lipids in Health and Disease, 2017, 16:125.
- ◆ W. Karnpanit, R. Coorey, J. Clements, S. M. Nasar-Abbas, **M. K. Khan** and V. Jayasena*
Effect of cultivar, cultivation year and dehulling on raffinose family oligosaccharides in Australian sweet lupin (*Lupinus angustifolius* L.)
International Journal of Food Science and Technology, 2016, 51, 1386–1392.
- ◆ S. M. Nasar-Abbas*, Zill-e-Huma, T. H. Vu, **M. K. Khan**, H. Esbenshade and V. Jayasena
Carob Kibble: A Bioactive-Rich Food Ingredient
Comprehensive Reviews in Food Science and Food Safety, 2016, 15(1), 63-72.
- ◆ N. Asghar, M. Imran, Z. Mushtaq*, R. S. Ahmad, **M. K. Khan**, N. Ahmad and U. Ahmad
Characterization and functional product development from bael (*Aegle marmelos* L. Correa) fruit pulp
Journal of Food Processing and Preservation, 2016, 40, 770–779.
- ◆ N. Ahmad*, M. Imran, **M. K. Khan** and Mahr un Nisa
Degree of hydrolysis and antigenicity of buffalo alpha S1 casein and its hydrolysates in children with cow milk allergy
Food and Agricultural Immunology, 2016, 27(1), 87–98.
- ◆ **M. K. Khan**, W. Karnpanit, S. M. Nasar-Abbas, Zill-e-Huma and V. Jayasena*
Phytochemical composition and bioactivities of lupin: a review
International Journal of Food Science and Technology, 2015, 50 (9), 2004-2012.
- ◆ M. Imran*, F. M. Anjum, N. Ahmad, **M. K. Khan**, Z. Mushtaq, M. Nadeem and S. Hussain
Impact of extrusion processing conditions on lipid peroxidation and storage stability of full-fat flaxseed meal
Lipids in Health and Disease, 2015, 14:92.
- ◆ M. Imran*, F. M. Anjum, M. Nadeem, N. Ahmad, **M. K. Khan**, Z. Mushtaq and S. Hussain
Production of Bio-omega-3 eggs through the supplementation of extruded flaxseed meal in hen diet
Lipids in Health and Disease, 2015, 14:126.
- ◆ M. Imran*, N. Ahmad, F. M. Anjum, **M. K. Khan**, Z. Mushtaq, M. Nadeem and S. Hussain
Potential protective properties of flax lignan secoisolariciresinol diglucoside
Nutrition Journal, 2015, 14:71.

- ◆ **M. K. Khan***, Zill-e-Huma and O. Dangles*
A comprehensive review on flavanones: citrus major polyphenols
Journal of Food Composition and Analysis, 2014, 33, 85 – 104.
- ◆ A. Rezaire, J.-C. Robinson*, D. Bereau, A. Verbaere, N. Sommerer, **M. K. Khan**, P. Durand, E. Prost, B. Fils-Lycaon.
Amazonian palm *Oenocarpus bataua* (“patawa”): Chemical and biological antioxidant activity – Phytochemical composition
Food Chemistry, 2014, 149, 62 – 70.
- ◆ A. Chanet, D. Milenkovic, S. Claude, J. A. M. Maier, **M. K. Khan**, N. Rakotomanomana, S. Shinkaruk, A. M. Bérard, C. Bennetau-Pelissero, A. Mazur, C. Morand*
Flavanone metabolites decrease monocyte adhesion to TNF α -activated endothelial cells by modulating expression of atherosclerosis-related genes
British Journal of Nutrition, 2013, 110, 587 – 598.
- ◆ **M. K. Khan**, N. Rakotomanomana, C. Dufour, O. Dangles*
Binding of citrus flavanones and their glucuronides and chalcones with human serum albumin
Food & Function, 2011, 2, 617 – 626.
- ◆ **M. K. Khan** and F. Chemat*
Review: Application of low and high power ultrasound in food analysis
Analytical Chemistry Letters, 2011, 1, 103 – 114.
- ◆ F. Chemat*, Zill-e-Huma, **M. K. Khan**
Review: Application of ultrasound in food technology: processing, preservation and extraction
Ultrasonics Sonochemistry, 2011, 18, 813 – 835.
- ◆ **M. K. Khan**, M. Abert-Vian, A. S. Fabiano-Tixier, O. Dangles, F. Chemat*
Ultrasound-assisted extraction of polyphenols (flavanone glycosides) from orange (*Citrus sinensis* L.) peel.
Food Chemistry, 2010, 119, 851 – 858.
- ◆ **M. K. Khan**, N. Rakotomanomana, M. Loonis, O. Dangles*
Chemical synthesis of citrus flavanone glucuronides.
Journal of Agricultural and Food Chemistry, 2010, 58, 8437 – 8443.

***Corresponding author**

Books/Book Chapters

-
- ◆ **M.K. Khan**, S. Hassan, M. Imran, M.H. Ahmad. (2022). Chapter 22: Extraction of bioactive compounds from clove (*Syzygium aromaticum*). Edited by Mohamed Fawzy Ramadan. Book: Clove (*Syzygium aromaticum*): Chemistry, Functionality and Applications. Publisher: Academic Press is an imprint of Elsevier 125 London Wall, London EC2Y 5AS, United Kingdom. (978-0-323-85177-0)
 - ◆ **M.K. Khan**, M. Imran, M.H. Ahmad, A. Zulifqar & N. Saeed. (2022). Chapter 14: Effect of Preharvest and Postharvest Factors on Quality of Plum. Edited by, Amir Gull, Gulzar Ahmad Nayik, Sajad Mohd Wani, Vikas Nanda. Book: Handbook of Plum Fruit Production, Postharvest Science, and Processing

Technology. Publisher: Apple Academic Press, CRC Press, a Taylor & Francis Group, New Jersey, USA. (ISBN: 978-1-032-07117-6)

- ◆ Z. Hassan, **M.K. Khan**, F. Saeed, S. Hassan, H.A.R. Suleria. (2021). Chapter 6: Therapeutic Potential of Marine Foods: A Review. Editors: Hafiz Ansar Rasul Suleria, Megh R. Goyal. Book: Health Benefits of Secondary Phytocompounds from Plant and Marine Sources (1st edition). Publisher: Apple Academic Press, CRC Press, a Taylor & Francis Group, New Jersey, USA. (ISBN: 978-1-00-301960-2)
- ◆ M.H. Ahmad, M.F. Afzal, M. Imran, **M.K. Khan**, Nazir Ahmad. (2021). Chapter 16: Nutrition: A Strategy for Curtailing the Impact of COVID-19 Through Immunity Booster Foods. Editors: Omar El Hiba, Jayakumar Radhakrishnan, Tiziano Balzano, Faical Isbaine. Book: Handbook of Research on Pathophysiology and Strategies for the Management of COVID-19. Publisher: IGI Global, Hershey, Pennsylvania, USA. (ISBN: 978-1-79-988225-1)
- ◆ **M. K. Khan**, M. Imran, M.H. Ahmad, S. Hassan and S. Sattar. (2020). Chapter 8: Ultrasound for beverage processing. Editors: Francisco J. Barba, Giancarlo Cravotto, Farid Chemat, Jose Manuel Lorenzo Rodriguez, Paulo Eduardo Sichert Munekata. Book: Design and Optimization of Innovative Food Processing Techniques Assisted by Ultrasound (Volume: Developing Healthier and Sustainable Food Products). Publisher: Academic Press, Elsevier, UK/USA. (ISBN: 978-0-12-818275-8)
- ◆ **M. K. Khan**, L. Paniwnyk and S. Hassan. (2019). Chapter 8: Polyphenols as natural antioxidants: sources, extraction and applications in food, cosmetics and drugs. Editors: Ying Li and Farid Chemat. Book: Green Chemistry and Sustainable Technology, Volume - Plant Based “Green Chemistry 2.0”: Moving from Evolutionary to Revolutionary. Publisher: Springer Nature, Singapore Pte Ltd. (ISBN 978-981-13-3810-6)
- ◆ **M. K. Khan**, F. Chemat and S. Sattar. (2019). Chapter 1: Extraction of Bioactive Molecules: Conventional vs. Novel Methods. Editors: Hafiz Ansar Rasul Suleria and Colin Barrow. Book: Bioactive Compounds from Plant Origins, Volume on Extraction, Applications, and Potential Health Benefits. Publisher: Apple Academic Press, CRC Press, a Taylor & Francis Group, New Jersey, USA. (ISBN: 978-981-13-3810-6)
- ◆ **M. K. Khan**, F. M. Anjum, M. U. Arshad and S. Hassan. (2018). Chapter 4: Eugenia jambos. Editors: Govil, J.N. and Singh, S. Book: Recent Progress in Medicinal Plants, Volume 46 on Metabolic Disorder - Diabetes, Part II. Publisher: Studium Press LLC, U.S.A. pp.77 – 110. (ISBN: 1-62699-083-2)
- ◆ **M. K. Khan**, Zill-e-Huma and V. Jayasena. (2016). Chapter 10: Flavanones: Potential components as medicine. Editors: Govil, J.N. and Pathak, M. Book: Recent Progress in Medicinal Plants, Volume 40 on Flavonoids and Antioxidants. Publisher: Studium Press LLC, U.S.A. pp.230 – 266. (ISBN-13: 9781626990777)

Articles Reviewed as Peer Reviewer

International Journal of Food Science & Technology (8); Journal of Food Processing and Preservation (9); Food Chemistry (4); Food & Function (3); Journal of Food Biochemistry (3); Food Science & Nutrition (3); Pakistan Journal of Agricultural Sciences (3); Comprehensive Reviews in Food Science and Food Safety (2); Journal of Food Composition and Analysis (2); Trends in Food Science and Technology (1); International Journal of Fruit Science (1); Journal of Food Measurement and Characterization (1); Journal of Food Science (1); Journal of Herbs, Spices & Medicinal Plants (1); Journal of Food Process Engineering(1); ACS Food Science and Technology (1); African Journal of Agricultural Research (1);

International communications

- ◆ International Food, Agriculture And Veterinary Sciences Congress, March 17-19, 2023, Kafkas University, Kars, Türkiye
Oral presentation (Online mode): Antioxidants: a new quality parameter for processed foods
- ◆ 31st All Pakistan Food Science Conference, March 18-19, 2022, Pakistan Society of Food Scientists & Technologists
Oral presentation: Ultrasound technology: a technology which fits in the sustainable development goals
- ◆ Baskent International Conference on Multidisciplinary Studies, September 23-25, 2022, Institute of Economic Development and Social Research, Ankara, Turkey
Oral presentation (Online mode): Use of novel technologies for the modification of proteins
- ◆ Istanbul International Modern Scientific Research Congress, June 04-05, 2021, Institute of Economic Development and Social Research, Istanbul, Turkey
Oral presentation (Online mode): Retention of phenolic compounds in processed foods using ultrasound technology
- ◆ 3rd International Conference on Food, Agriculture and Veterinary, June 19-20, 2021, Ege University, Izmir, Turkey
Oral presentation (Online mode): Application of ultrasound in extraction of polyphenols from food by-products
- ◆ International Human Nutrition Conference and Expo, 3-4 Nov 2015, Pearl Continental Hotel, Lahore, Pakistan
Oral presentation: Effect of fermentation of germinated lupin on total phenolic content, antioxidant activity and anti-nutritional factors
- ◆ International Seminar on “Technical Issues & Challenges to Fruit & Vegetables Processing Industries in Pakistan and their Synoptic Solutions (under USAID project)”, 26-27 Aug 2015, Institute of Food Science & Nutrition, University of Sargodha, Pakistan.
Oral presentation: Importance of innovative technologies in the processing of fruits and vegetables
- ◆ International Seminar on Food Production and Processing Technologies, 6-8 Nov 2012, COMSTECH, Islamabad, Pakistan
Oral presentation: Application of ultrasound in food industry
- ◆ 25th International Conference on Polyphenols (ICP), 24-27 Aug 2010, Montpellier, France
Oral presentation: Chemical synthesis of flavanone glucuronides and chalcones, and investigation of their affinity for human serum albumin
- ◆ 5th Meeting of French-Italian Chemistry (GIFC), 26-27 Apr 2010, Genoa, Italy
Oral presentation: Chemical synthesis of flavanone glucuronides and investigation of their affinity for human serum albumin

- ◆ 3rd International Conference on Fruits & Vegetables (FAV HEALTH), 17-21 Oct 2009, Avignon, France
Oral presentation: Ultrasound-assisted extraction of polyphenols (flavanone glycosides) from orange (*Citrus sinensis* L.) peel
- ◆ 4th International Conference on Polyphenols and Health (ICPH), 7-11 Dec 2009, Yorkshire, England
Poster: Chemical synthesis of flavanone glucuronides and investigation of their affinity for human serum albumin

National communications

- ◆ 32nd All Pakistan Food Science Conference, March 08-09, 2023, Pakistan Society of Food Scientists & Technologists
Oral presentation: Trends, innovations and challenges in the edible oil industry
- ◆ Conference on Recent Trends in Food Processing and Technology, 15-16 November, 2017, Department of Dairy Technology, University of Veterinary & Animal Sciences, Lahore, Pakistan
Oral presentation: Oxidative stability of ultrasound-assisted sunflower seed oil
- ◆ 1st National Conference on Recent Advances in Functional Foods, 5-6 Oct 2016, Department of Dairy Technology, University of Veterinary and Animal Sciences, Ravi Campus, Pattoki
Invited speaker: Application of novel technologies in the extraction of functional components
- ◆ 25th All Pakistan Food Science Conference, Mar 16-17, 2015, PCSIR Complex, Lahore, Pakistan
Oral: Reduction of phytate content during fermentation of germinated lupin
- ◆ 3rd Invention to Innovation Summit 2014, March 19-20, 2014, Punjab University, Lahore
Project presented: Various functional and innovative food products prepared by department were presented.
- ◆ Video & Poster Competition on "Green Industry Green Pakistan" organized by Ministry of Industries, Government of Pakistan, Aug 16, 2012, Islamabad, Pakistan.
Poster: Innovative technology in food industry, utilization of food wastes and production of biofuel from microalgae (got certificate and shield for outstanding contribution)
- ◆ Meeting of Doctoral School Process Engineering Sciences - Food Sciences (SP-SA), 22 Jun 2010, Montpellier, France.
Poster: Chemical synthesis of flavanone glucuronides and chalcones, and kinetic study of later in the presence of human serum albumin
- ◆ 6th Meeting of Organic Chemistry (RCOM), 6-7 May 2010, Marseille, France
Oral presentation: Chemical synthesis of dietary flavanone metabolites and study of their interaction with human serum albumin.
- ◆ 21st Meeting of French Chemical Society (SCF, PACA), 16 Apr 2009, Marseille, France
Poster: Chemical synthesis of two metabolites of the major polyphenols (flavanones) of citrus fruits
- ◆ Meeting of Doctoral School Process Engineering Sciences - Food Sciences (SP-SA), 19 Jun 2009, Montpellier, France.

Conferences / Seminars / Workshops Attended

- ◆ 7th International Halal Conference, April 17-18, 2018 at Faletti's Hotel, Lahore by Punjab Halal Development Agency.
- ◆ Conference on “Recent Trends in Food Processing and Technology”, Nov 15-16, 2017, Department of Dairy Technology, University of Veterinary and Animal Sciences, Lahore.
- ◆ Two days workshop on “Data Analysis with SPSS”, May 9-10, 2017, Department of Statistics, Government College University Faisalabad, Pakistan.
- ◆ 5th Quality Assurance Conference, March 22, 2017 at Faletti's Hotel, Lahore by Metro – Habib Cash & Carry, Pakistan.
- ◆ 5th International Halal Conference & Exhibition, April 12-13, 2016 at Faletti's Hotel, Lahore by Punjab Halal Development Agency.
- ◆ Food Safety & Halal Standards Compliance Management Training Workshop, April 13, 2016 at Faletti's Hotel, Lahore by Punjab Halal Development Agency.
- ◆ Food and Nutrition Week, November 3-7, 2015 at Pearl Continental Hotel, Lahore, Pakistan organized by University of Veterinary and Animal Sciences, Lahore
- ◆ Workshop on Digital Library and e-Services, September 1-7, 2015 organized by Office of Research, Innovation & Commercialization, Government College University Faisalabad, Pakistan.
- ◆ Seminar on “Parenting Skills”, July, 2013, Department of Home Economics, Government College University Faisalabad, Pakistan.
- ◆ International Workshop on “Water Quantity and Quality Assessment”, October 16-18, 2012, COMSTECH, Islamabad, Pakistan.
- ◆ 3rd International Halal conference & Expo, May 22-23, 2014, Expo Centre, Lahore-Pakistan.

Conferences / Seminars / Workshops as Organizing Member

- ◆ 1st Pakistan Halal Assembly & Pak-China Agriculture Forum, March 20-23, 2018, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.
- ◆ International Conference on “Food and Nutrition Security: Impact of Climate Change” & Food and Nutrition Expo, March 07-08, 2017, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.
- ◆ World Food Day – 2016, October 18, 2016, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.
- ◆ International Conference on “Global Trends in Safe and Healthy Food” & Lyallpur Food and Poultry Products Festival, March 07-08, 2016, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.

- ◆ International Conference on Halal Foods, Pharmaceuticals and Cosmetics, Feb 16, 2016, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.
- ◆ Food Safety: Health and Hygiene in Confectionery Industry, August 13, 2015, jointly organized by Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan and Confectionery Association Faisalabad.
- ◆ Workshop on A bite for Healthy Life: Healthy Nutritional Practices for Toddlers and Women, May 7, 2015, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.
- ◆ Egg Festival and Poultry Egg and Human Health seminar, 2015, Institute of Home and Food Sciences, Government College University Faisalabad, Pakistan.
- ◆ Seminar on “Drinking Water” in connection with World Water Day (March 22, 2014), March 24, 2014, Department of Food Science, Government College University Faisalabad, Pakistan.
- ◆ Workshop on “Curriculum Development for Degree Programs (BS. Nutrition & Dietetics / Halaal Science / Hospitality Management)”, February 25, 2014, Department of Food Science, Government College University Faisalabad, Pakistan.
- ◆ Seminar on “Sampling Techniques” by Agilent, February 13, 2014, Department of Food Science, Government College University Faisalabad, Pakistan.
- ◆ Lecture on “Extrusion Technology” by Dr. Nadeem Riaz (Texas University, USA), February 07, 2014, Department of Food Science, Government College University Faisalabad, Pakistan.
- ◆ 3rd International Conference on “Functional Foods and Nutraceuticals” & 3rd Food and Nutrition Expo, December 04-05, 2013, Department of Food Science, Government College University Faisalabad, Pakistan.
- ◆ Seminar on Halal Foods, July 30, 2013, Department of Food Science, Government College University Faisalabad, Pakistan.
- ◆ 2nd International Conference on “Future Perspectives of Food Processing Industry in Pakistan” & 2nd Food and Nutrition Expo, December 11-12, 2012, Department of Food Science, Government College University Faisalabad, Pakistan.

Skills

➤ **Technical skills**

- ◆ High pressure liquid chromatography (HPLC)
- ◆ High/Ultra-high pressure liquid chromatography – Mass spectrometry (H/UPLC - MS)
- ◆ Fluorescence spectroscopy
- ◆ Fourier Transform Infrared (FT-IR)
- ◆ UV-visible spectroscopy
- ◆ Ultrasound-assisted extraction
- ◆ Antioxidant tests and determination of phenolic content in plants
- ◆ Physico-chemical analyses
- ◆ Proximate analyses

➤ **Management skills**

- ♦ Development of Agri-Food Products from strategic planning to launching
- ♦ Establishment of a laboratory from designing to compliance (ISO 17025:2017)
- ♦ Engagement in professional networks with my interpersonal and intercultural skills
- ♦ Oral and written communication
- ♦ Project and Time management
- **Computer skills**
 - ♦ ChemOffice Ultra (Version 8, 2004, representation of molecules)
 - ♦ STATGRAPHICS PLUS (Version 5.1, 2000)
 - ♦ Endnote (bibliography)
- **Languages**
 - ♦ English: Speaking, writing, reading (bilingual),
 - ♦ French: Speaking, writing, reading (operational),
 - ♦ Urdu: Maternal language

International Collaborations / Professional References

- ♦ Prof. Vijay Jayasena, Western Sydney University, Australia (v.jayasena@westernsydney.edu.au)
- ♦ Prof. Olivier Dangles, University of Avignon, France (olivier.dangles@univ-avignon.fr)
- ♦ Dr. Melvin Holmes, University of Leeds, UK (prcmjh@leeds.ac.uk)
- ♦ Dr. Changmou Xu, University of Nebraska-Lincoln, USA (cxu13@unl.edu)
- ♦ Dr. Larysa Paniwnyk, Coventry University, UK (apx122@coventry.ac.uk)

Honors / Awards / Achievements

- ♦ Prof. Dr. Faqir Muhammad Anjum 6th Gold Medal - 2024
- ♦ Research Productivity Award by GCUF - 2023
- ♦ France Alumni Ambassador in Pakistan (nominated by Embassy of France in Pakistan) – 2016
- ♦ Establishment of state-of-the-art FIT (Food Innovative Technology) centre - 2015
- ♦ Australian Endeavour Research Fellowship Award – 2014
- ♦ HEC - National Curriculum Revision Committee (NCRC) member - 2013-14
- ♦ HEC Overseas Scholarship Award - M.Phil. leading to Ph.D. - 2006-2010
- ♦ University Merit Scholarship Holder throughout BS (Hons.) Agriculture - 2000-2004

Activities/Interests

- ♦ Life Time Member of "Pakistan Society of Food Scientists & Technologists"
- ♦ Organizer/participation for multiple awareness walks on food safety and food security
- ♦ Evaluator for the Interdepartmental Tree Plantation competitions (GCUF)
- ♦ Travelling and exploring places (Australia, France, Spain, Italy, UK, French Guiana, Brazil, Suriname), Networking, and Socializing.

Profile can also be seen at <https://profiles.gcuf.edu.pk/profile/drmkamrankhan>