

CURRICULUM VITAE

PERSONAL BIODATA

Name	Muhammad Bilal
Affiliation	School of Life Science and Food Engineering, Huaiyin Institute of Technology, Huaian, 223003, Huaian.
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CURRENT POSITIONS (EMPLOYMENT)

2018 – Present	Associate Professor: School of Life Science and Food Engineering, Huaiyin Institute of Technology, Huaian 223003, China.
2019 – Present	Adjunct Researcher: Ton Duc Thang University, Ho Chi Minh City, Vietnam, 2019-present

PROFESSIONAL CAREER SUMMARY

2013 – 2014	Research Associate (Part Time) , University of Agriculture Faisalabad, Faisalabad, Pakistan in Higher education commission (HEC) funded research project: "Development of immobilized ligninase enzymes and their applications in industrial and environmental Biotechnology.
2012 – 2013	Research Assistant (Part Time) , University of Agriculture Faisalabad, Faisalabad, Pakistan in HEC funded research project: "Purification, Immobilization and Characterization of Ligninases produced by Indigenous White Rot Fungi for Industrial Applications".

QUALIFICATIONS/ACADEMIC RECORD

2014 – 2018	PhD in Biology/Bioengineering (Life Sciences) , School of Life Science and Biotechnology, Shanghai Jiao Tong University, Shanghai, CHINA.
2012 – 2014	MPhil in Biochemistry , University of Agriculture Faisalabad, Faisalabad, Pakistan.
2010 – 2012	MSc in Biochemistry , University of Agriculture Faisalabad, Faisalabad, Pakistan.
2007 – 2009	BSc in Biochemistry, Microbiology, & Anatomy , University of the Punjab, Lahore-Pakistan.
2005 – 2007	FSc (A-Level) in Biochemistry, Microbiology, & Anatomy , Federal Board of Intermediate and secondary education, Islamabad Pakistan.
2003 – 2005	Matric (O-Level) in Biology, Chemistry & Physics , BISE, GRW, Pakistan.

RESEARCH WORK (THESIS)

2014 – 2018	PhD Thesis entitled ""Glycerol-glucose co-utilization strategies and engineering <i>Pseudomonas chlororaphis</i> GP72 for enhanced biosynthesis of phenazine-1-carboxylic acid".
2012 – 2014	MPhil Thesis entitled "Catalytic efficiency and thermo-stability enhancement of fungal manganese peroxidase via different immobilization techniques for industrial application".
2010 – 2012	MSc Thesis entitled "Utilization of newspaper waste for efficient bioethanol production through alkali and enzymatic delignification".

RESEARCH AREAS/INTERESTS

Areas	Bioengineering; Environmental Biotechnology/Engineering; Bioremediation; Bio-catalysis; Enzymes; Immobilization; Chemical Engineering; Green Chemistry; Biomaterials; Bioenergy, Metabolic engineering, Chemical and biomolecular engineering, and advanced fermentation Technology.
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Interests	<p>Engineering of <i>Pseudomonas</i> and <i>E. coli</i> strains for valuable secondary metabolites biosynthesis</p> <p>Engineering <i>Yarrowia lipolytica</i> for biosynthesis of rare sugars</p> <p>Chemical and Biomolecular Engineering/Industrial Biotechnology/Microbiology</p> <p>Biosynthesis of natural products/antibiotics, regulation, separation and purification</p> <p>Bio-inspired bio-constructs development, characterisation and applications</p> <p>Development and characterization of Nano-based support materials for enzyme immobilization</p> <p>Bio-catalysis: enzymes, purification, characterization, immobilization, and industrial applications</p> <p>Liquid and solid waste management – revalorization of agro-industrial wastes and by-products</p> <p>Bio-remediation of hazardous pollutants and emerging contaminants of high concern</p> <p>Biomaterials for bioenergy</p>
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PUBLICATION RECORD

Research/Review Articles	Book Chapters	Editorials	Abstracts	Impact Factor	Citations	h-index
350	15	02	11	700+	5000+	40

HONORS AND AWARDS

2014– 2018	Shanghai Government Scholarship (SGS) for PhD at Shanghai Jiao Tong University, Shanghai, China.
2017	Shortlisted as “2017 excellent international student” at Shanghai Jiao Tong University, Shanghai, China
2010-2014	Awarded “Merit based scholarship” during MSc and MPhil (Biochemistry) from the University of Agriculture, Faisalabad
2014	Awarded “English Proficiency Appreciation Certificate” from the University of Agriculture, Faisalabad.
2012	Got merit based laptop from the Government of Punjab under “Shahbaz Sharif youth initiative programme”
2009	Awarded “Certificate in Information Technology” from Al-Falah College of Computer Sciences, Lahore
2012, 2013	Passed Graduate assessment test held by National Testing Service, Islamabad, Pakistan

EDITORSHIPS IN SCIENTIFIC JOURNALS

200 - Present	Processes (Guest Editor)
2020 – Present	Marine Drugs (Guest Editor)
2020 – Present	Frontiers in Chemistry (Guest Editor)
2019 – Present	Current Nanotoxicity and Prevention (Section Editor)
2019 – Present	Science of the Total Environment (Guest Editor)
2020 – Present	Mathematical Bioscience and engineering (Guest Editor)
2020 – Present	Journal of Environmental Chemical Engineering (Guest Editor)
2020 – Present	Case Studies in Chemical and Environmental Engineering (Guest Editor)
2020 – Present	Frontiers in Bioengineering and Biotechnology - Bioprocess Engineering- Review Editor

GUEST EDITED SPECIAL ISSUES (SI):

2019-2020	Journal Name: Science of the Total Environment, SI entitled “Modalities to bio-transform waste to sustainable energy with a zero-waste approach: A step forward to meet circular economy challenges to rescue environmental insecurity”, Publisher: Elsevier.
2019	Journal Name: Mathematical Biosciences and Engineering, SI entitled “State-of-the-art strategies to tackle emerging contaminants of high concern: In greening the 21 st - century environmental engineering”, Publisher: AIMS Press.

BOOK PROPOSAL EVALUATION

2019	Dr Yasha Hasija, Delhi Technological University, Translational Biotechnology: A Journey from Laboratory to Clinics, Publisher: Elsevier.
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- 2019 Dr. Inammudin, Dr. Rajender Boddula, Dr. Abdullah M. Asiri. King Abdulaziz University, Jeddah 21589, Saudi Arabia Title: Green inorganic synthesis Publisher: Elsevier.
- 2019 Dr. Pardeep Singh and Dr Chaudhery Mustansar Hussain: New Jersey Institute of Technology (NJIT), Newark, New Jersey, USA Title: Management of Contaminants of Emerging Concern (CEC) in Environment Publisher: Elsevier

PROFESSIONAL ASSOCIATIONS (MEMBERSHIPS)

- 2014 – Present
2010-2011 Member “The Chemical Society of Pakistan”
Member “Pakistan Medical Laboratory Association”
- 2010-2012 Member of “The Agrarian Society” University of Agriculture Faisalabad
- 2010 – 2012 Management committee Jinnah Hall University of Agriculture Faisalabad
- 2010- 2014 Cricket team, Department of Chemistry & Biochemistry, University of Agriculture Faisalabad Pakistan

RESEARCH ABSTRACTS PRESENTED/PUBLISHED IN INTERNATIONAL AND NATIONAL CONFERENCES

- 2018 M. Shahbaz, Mostafa Alwakeel, and **M. Bilal**. 2018. Developing and maintaining food safety culture through implementation of global food safety benchmarked standards - a success story. IAFP European Symposium on Food Safety. P1-15
- 2014 **Bilal, M.**, M. Asgher, S. Noreen and M. Zafar. 2014. Multifunctional alginate microspheres loaded with novel manganese peroxidase for industrial applications. International Conference on “Energy Production from Agriculture Biomass and Domestic Wastes” April 15-17, 2014. Abstract Book P. 42.
- 2014 Ahmad, Z., U. Latif, M. Asgher and **M. Bilal**. 2014. A comprehensive ligninolytic pretreatment of agro industrial residues for enhanced bioethanol production. International Conference on “Energy Production from Agriculture Biomass and Domestic Wastes” April 15-17, 2014. Abstract Book P. 34.
- 2014 Shahbaz, M., M. Nasir, K. Hanif and **M. Bilal**. 2014. Food safety challenges in consumer food products at hypermarkets in Pakistan. International Conference & Expo 2014 “Recent Developments in Human Nutrition” in the University of Veterinary and Animal Sciences, Lahore-Pakistan. March. 19-20, 2014. Abstract Book P. 108
- 2014 Awan, S. R., M. Shahbaz and **M. Bilal**. 2014. Heavy metals contamination in confectionary products: severe threat to small children health. International Conference & Expo 2014 “Recent Developments in Human Nutrition” in the University of Veterinary and Animal Sciences, Lahore-Pakistan. March. 19-20, 2014. Abstract Book P. 112
- 2014 Ramzan, M., M. Asgher and **M. Bilal**. 2014. Purification and biochemical characterization of highly active manganese peroxidase from mutant *Trametes versicolor* IBL-04 under solid-state culture. 1st International Conference on Applied Chemical, Biological and Aquatic Sciences. Government College University, Faisalabad. Feb. 18-20, 2014. Abstract Book P. 86.
- 2014 Ashraf, M.W., M.A. Sheikh, M. Asgher, M. Bilal and Z. Ahmad. 2014. Effect of Aqueous Extract of *Allium sativum* (garlic) on the production of Advanced Glycation End Products (AGE). 1st International Conference on Applied Chemical, Biological and Aquatic Sciences. Government College University, Faisalabad. Feb. 18-20, 2014. Abstract Book P. 72.
- 2013 Munir, N., M. Asgher and **M. Bilal**. 2013. Utilization of response surface methodology for enhanced production of anti-cholesterol agents by filamentous fungi using solid-state fermentation. 1st International Conference on Applied Chemistry, GC. University, Faisalabad. Nov. 18-20, 2013. Abstract Book P. 98.
- 2013 Asgher, M., Z. Ahmad and **M. Bilal**. 2013. Delignification of agricultural residues by enzyme extract from *Trametes versicolor* IBL-04 for bioethanol production. 11th Biennial Conference; Molecular Biosciences- Challenges and Opportunities, Nov. 25-28, 2013, P. 41.
- Waseem, S., M. Asgher and **M. Bilal**. 2013. Optimization of ligninolytic enzymes profile of *Pleurotus eryngii* using response surface methodology. 11th Biennial Conference; Molecular Biosciences- Challenges and Opportunities, Nov. 25-28, 2013, P. 115.
- 2013 **Bilal, M.**, M. Asgher, N. Munir and M. Ramzan. 2013. Optimization of bioethanol production from old newspapers waste through alkali and enzymatic delignification using Response Surface Methodology (RSM). 12th international & 24th National Chemistry Conference, BZU Multan. Oct. 28-30, 2013. Abstract Book P.75-76.

CONFERENCE ATTENDED/PARTICIPATIONS

2018	Attended in International Symposium on Crop Resources in Extreme Environments & Food Quality and Safety, College of Life Science, Northwest A & F University, Yangling, Shaanxi, China, 712100, Nov. 24 –25, 2018
2014	Participated in International Conference & Expo 2014 “Recent Developments in Human Nutrition” in the University of Veterinary and Animal Sciences, Lahore-Pakistan under the theme “Innovate and Collaborate to Intervene Malnutrition”. March. 19-20, 2014.
2014	Attended International Conference of Biochemical and Chemical Sciences (ICBCS 2014) “Go Greener for Sustainable Economy” University of Agriculture, Faisalabad, Pakistan. Feb. 24-26, 2014.
2014	Attended “1st International Conference on Applied Chemical, Biological and Aquatic Sciences, Government College University, Faisalabad, Pakistan. Feb. 18-20, 2014.
2013	Participated in “11th Biennial Conference; Molecular Biosciences- Challenges and Opportunities, Punjab University, Lahore, Pakistan. Nov. 25-28, 2013.
2013	Attended “1st International Conference on Applied Chemistry, Government College University, Faisalabad, Pakistan. Nov. 18-20, 2013.
2013	Participated in “12th international & 24th National Chemistry Conference, Bahauddin Zakariya University, Multan- Pakistan. Oct. 28-30, 2013.

TRAININGS AND WORKSHOPS

2013	Participated in one-week workshop on “ Practical training in Molecular and Biochemical techniques ” organized by Higher Education Commission held at department of Chemistry and Biochemistry, University of Agriculture, Faisalabad.
2014	Attended one day seminar on “ Character Building and Personality Enhancement ” organized by senior tutor office, University of Agriculture, Faisalabad, Pakistan
2014	Attended one day seminar on “ Scientific writing and Plagiarism ” from University of Agriculture, Faisalabad.
2014	Attended one day symposium on “ Prospects for a Glorious Pakistan: Role of Emerging Technologies ” organized by Department of Bioinformatics and Biotechnology & Department of Applied Chemistry and Biochemistry, Government College University, Faisalabad.
2008	Attended one day training workshop on “ Medical Technologists in Basic Haematology ” organized in Pakistan Institute of Medical Sciences, Islamabad, Pakistan.
2007	Attended one day training workshop on “ Medical Technologists in Basic Microbiology ” organized in Pakistan Institute of Medical Sciences, Islamabad, Pakistan.

List of Publications – Dr. Muhammad Bilal (Bilal M.)

- **Bilal, M.**, Nguyen, T. A., & Iqbal, H. M. (2020). Multifunctional carbon nanotubes and their derived nano-constructs for enzyme immobilization—A paradigm shift in biocatalyst design. *Coordination Chemistry Reviews*, 422, 213475.
- **Bilal, M.**, Ashraf, S. S., Ferreira, L. F. R., Cui, J., Lou, W. Y., Franco, M., & Iqbal, H. M. (2020). Nanostructured materials as a host matrix to develop robust peroxidases-based nanobiocatalytic systems. *International Journal of Biological Macromolecules*.
- Afzal, M., Mazhar, S. F., **Bilal, M.**, Sana, S., Naeem, M., Rasool, M. H., Saqalein, M., ... & Khurshid, M. (2020). Neurological and cognitive significance of probiotics: a holy grail deciding individual personality. *Future Microbiology*, (0).
- Qamar, S. A., Asgher, M., **Bilal, M.**, & Iqbal, H. M. (2020). Bio-based active food packaging materials: Sustainable alternative to conventional petrochemical-based packaging materials. *Food Research International*, 109625.
- Rasheed, T., Shafi, S., **Bilal, M.**, Hussain, T., Sher, F., & Rizwan, K. (2020). Surfactants-based remediation as an effective approach for removal of environmental pollutants—A review. *Journal of Molecular Liquids*, 113960.
- Nawaz, A., Khan, A., Ali, N., Ali, N., & **Bilal, M.** (2020). Fabrication and characterization of new ternary ferrites-chitosan nanocomposite for solar-light driven photocatalytic degradation of a model textile dye. *Environmental Technology & Innovation*, 101079.
- Nawaz, R., Rasheed, T., **Bilal, M.**, Majeed, S., Iqbal, Z., Iqbal, T., & Ali, F. (2020). Luminol immobilized graphite electrode as sensitive electrochemiluminescent sensor for the detection of hydrogen peroxide. *Sensors International*, 100027.
- Asgher, M., Muzammil, M., Qamar, S. A., Khalid, N., & **Bilal, M.** (2020). Environmentally friendly color stripping of Solar Golden Yellow R dyed cotton fabric by ligninolytic consortia from *Ganoderma lucidum* IBL-05. *Case Studies in Chemical and Environmental Engineering*, 100031.
- Ali, N., Ali, F., Farooq, R., Said, A., Saeed, S., & **Bilal, M.** (2020). Photo-oxidative degradation of organo-functionalized vermiculite clay-reinforced polyimide composites. *Applied Nanoscience*, 1-9.
- Ali, N., Uddin, S., Khan, A., Khan, S., Khan, S., Ali, N., ... & Bilal, M. (2020). Regenerable chitosan-bismuth cobalt selenide hybrid microspheres for mitigation of organic pollutants in an aqueous environment. *International Journal of Biological Macromolecules*.

- **Bilal, M., & Iqbal, H. M.** (2020). Recent Advancements in the Life Cycle Analysis of Lignocellulosic Biomass. *Current Sustainable/Renewable Energy Reports*, 1-8.
- **Bilal, M., & Iqbal, H. M.** (2020). Ligninolysis Potential of Ligninolytic Enzymes: A Green and Sustainable Approach to Bio-transform Lignocellulosic Biomass into High-Value Entities.
- Ali, N., Ali, F., Khurshid, R., Ali, Z., Afzal, A., **Bilal, M., ... & Ahmad, I.** (2020). TiO₂ Nanoparticles and Epoxy-TiO₂ Nanocomposites: A Review of Synthesis, Modification Strategies, and Photocatalytic Potentialities. *Journal of Inorganic and Organometallic Polymers and Materials*, 1-18.
- Parra-Saldivar, R., Castillo-Zacarias, C., **Bilal, M.,** Iqbal, H. M., & Barceló, D. (2020). Sources of Pharmaceuticals in Water.
- Naveed, M., Nadeem, F., Mehmood, T., **Bilal, M.,** Anwar, Z., & Amjad, F. (2020). Protease—A Versatile and Ecofriendly Biocatalyst with Multi-Industrial Applications: An Updated Review. *Catalysis Letters*, 1-17.
- Ali, F., Ali, N., Altaf, M., Said, A., Shah, S. S., & **Bilal, M.** (2020). Epoxy Polyamide Composites Reinforced with Silica Nanorods: Fabrication, Thermal and Morphological Investigations. *JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS*.
- Duan, P., Khan, S., Ali, N., Shereen, M. A., Siddique, R., Ali, B., ... & **Bilal, M.** (2020). Biotransformation fate and sustainable mitigation of a potentially toxic element of mercury from environmental matrices. *Arabian Journal of Chemistry*.
- Ali, N., Ali, F., Said, A., Begum, T., **Bilal, M.,** Rab, A., ... & Ahmad, I. (2020). Characterization and Deployment of Surface-Engineered Cobalt Ferrite Nanospheres as Photocatalyst for Highly Efficient Remediation of Alizarin Red S Dye from Aqueous Solution. *Journal of Inorganic and Organometallic Polymers and Materials*, 1-11.
- **Bilal, M.,** Barceló, D., & Iqbal, H. M. (2020). Persistence, ecological risks, and oxidoreductases-assisted biocatalytic removal of triclosan from the aquatic environment. *Science of The Total Environment*, 139194.
- **Bilal, M.,** Rasheed, T., Mehmood, S., Tang, H., Ferreira, L. F. R., Bharagava, R. N., & Iqbal, H. M. (2020). Mitigation of environmentally-related hazardous pollutants from water matrices using nanostructured materials—A review. *Chemosphere*, 126770.
- **Bilal, M.,** Xu, S., Iqbal, H. M., & Cheng, H. (2020). *Yarrowia lipolytica* as an emerging biotechnological chassis for functional sugars biosynthesis. *Critical Reviews in Food Science and Nutrition*, 1-18.
- **Bilal, M.,** Wang, Z., Cui, J., Ferreira, L. F. R., Bharagava, R. N., & Iqbal, H. M. (2020). Environmental impact of lignocellulosic wastes and their effective exploitation as smart carriers—A drive towards greener and eco-friendlier biocatalytic systems. *Science of The Total Environment*, 137903.
- **Bilal, M., & Iqbal, H. M.** (2020). Biologically active macromolecules: Extraction strategies, therapeutic potential and biomedical perspective. *International Journal of Biological Macromolecules*, 151, 1-18.
- **Bilal, M., & Iqbal, H. M.** (2020). Ligninolytic enzymes mediated ligninolysis: an untapped biocatalytic potential to deconstruct lignocellulosic molecules in a sustainable manner. *Catalysis Letters*, 150(2), 524-543.
- **Bilal, M.,** Zhao, Y., & Iqbal, H. M. (2020). Development and characterization of essential oils incorporated chitosan-based cues with antibacterial and antifungal potentialities. *Journal of Radiation Research and Applied Sciences*, 13(1), 174-179.
- **Bilal, M.,** Nazir, M. S., Ahmed, I., & Iqbal, H. (2020). Coronaviruses and COVID-19—Complications and Lessons Learned for the Future. *Journal of Pure and Applied Microbiology*, 14.
- **Bilal, M., & Iqbal, H.** (2020). New Insights on Unique Features and Role of Nanostructured Materials in Cosmetics. *Cosmetics*, 7(2), 24.
- **Bilal, M.,** Nazir, M. S., Parra-Saldivar, R., & Iqbal, H. M. (2020). 2019-NCOV/COVID-19-Approaches to viral vaccine development and preventive measures. *Journal of Pure and Applied Microbiology*, 14(1).
- **Bilal, M.,** Mehmood, S., & Iqbal, H. (2020). The beast of beauty: environmental and health concerns of toxic components in cosmetics. *Cosmetics*, 7(1), 13.
- **Bilal, M., & Iqbal, H.** (2020). Marine Seaweed Polysaccharides-Based Engineered Cues for the Modern Biomedical Sector. *Marine Drugs*, 18(1), 7.
- **Bilal, M., & Iqbal, H. M.** (2020). Biologically active macromolecules: Extraction strategies, therapeutic potential and biomedical perspective. *International Journal of Biological Macromolecules*.
- **Bilal, M.,** Zhao, Y., & Iqbal, H. M. (2020). Development and characterization of essential oils incorporated chitosan-based cues with antibacterial and antifungal potentialities. *Journal of Radiation Research and Applied Sciences*, 13(1), 174-179.
- **Bilal, M., & Iqbal, H. M.** (2020). Ligninolytic Enzymes Mediated Ligninolysis: An Untapped Biocatalytic Potential to Deconstruct Lignocellulosic Molecules in a Sustainable Manner. *Catalysis Letters*, 1-20.
- Amin, F., Mohsin, A., Bhatti, H. N., & **Bilal, M.** (2020). Production, thermodynamic characterization, and fruit juice quality improvement characteristics of an Exo-polygalacturonase from *Penicillium janczewskii*. *Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics*, 140379.
- Guo, S., Wang, Y., **Bilal, M.,** Wang, W., Hu, H. B., & Zhang, X. (2020). Microbial Synthesis of Antibacterial Phenazine-1, 6-dicarboxylic acid and the Role of PhzG in *Pseudomonas chlororaphis* GP72AN. *Journal of Agricultural and Food Chemistry*.
- Wu, T. T., Zhao, X. J., Yang, R. L., **Bilal, M.,** Wang, Z. Y., Luo, H. Z., ... & Nie, Z. K. Catalytic Performance of a Robust Whole-Cell Biocatalyst in the Regioselective Synthesis of Helicid Esters Under Optimized Processing Conditions. *Catalysis Letters*, 1-8.
- Ali, N., Said, A., Ali, F., Raziq, F., Ali, Z., **Bilal, M., ... & Iqbal, H. M.** (2020). Photocatalytic Degradation of Congo Red Dye from Aqueous Environment Using Cobalt Ferrite Nanostructures: Development, Characterization, and Photocatalytic Performance. *Water, Air, & Soil Pollution*, 231(2), 50.
- Nazir, M. S., Ali, N., **Bilal, M., & Iqbal, H. M.** (2020). Potential environmental impacts of wind energy development—A global perspective. *Current Opinion in Environmental Science & Health*.
- Parra-Saldivar, R., Bilal, M., & Iqbal, H. M. (2020). Life cycle assessment (LCA) in wastewater treatment technology. *Current Opinion in Environmental Science & Health*.
- Ain, Q. U., Munir, H., Jelani, F., Anjum, F., & **Bilal, M.** (2020). Antibacterial potential of biomaterial derived nanoparticles for drug delivery application. *Materials Research Express*.
- Ali, N., Ali, F., Sheikh, Z. A., **Bilal, M., & Ahmad, I.** (2020). Photocatalytic Performance of Zinc Ferrite Magnetic Nanostructures for Efficient Eriochrome Black-T Degradation from the Aqueous Environment under Unfiltered Sunlight. *Water, Air, & Soil Pollution*, 231(2), 59.
- Munir, S., Shah, A. A., Rahman, H., **Bilal, M.,** Rajoka, M. S. R., Khan, A. A., & Khurshid, M. Nanozymes for medical biotechnology and its potential applications in biosensing and nanotherapeutics. *Biotechnology Letters*, 1-17.

- Morsi, R., **Bilal, M.**, Iqbal, H. M., & Ashraf, S. S. (2020). Laccases and peroxidases: The smart, greener and futuristic biocatalytic tools to mitigate recalcitrant emerging pollutants. *Science of The Total Environment*, 136572.
- Ali, N., **Bilal, M.**, Nazir, M. S., Khan, A., Ali, F., & Iqbal, H. M. (2020). Thermochemical and electrochemical aspects of carbon dioxide methanation: A sustainable approach to generate fuel via waste to energy theme. *Science of The Total Environment*, 136482.
- Liu, P., Zhou, R., Yin, T., Wang, Q., Guo, Z., Qiwen, T., ... & Li, X. (2020). Novel bio-fabrication of silver nanoparticles using the cell-free extract of *Lysinibacillus fusiformis* sp. and their potent activity against pathogenic fungi. *Materials Research Express*, 6(12), 1250f2.
- Zhao, X., Yang, R., Bi, Y., **Bilal, M.**, Kuang, Z., Iqbal, H., & Luo, Q. (2020). Effects of Dietary Supplementation with Mulberry (*Morus alba* L.) Leaf Polysaccharides on Immune Parameters of Weanling Pigs. *Animals*, 10(1), 35.
- Luo, H., Zheng, P., **Bilal, M.**, Xie, F., Zeng, Q., Zhu, C., ... & Wang, Z. (2020). Efficient bio-butanol production from lignocellulosic waste by elucidating the mechanisms of *Clostridium acetobutylicum* response to phenolic inhibitors. *Science of The Total Environment*, 710, 136399.
- Ali, N., Zaman, H., Zaman, W., & **Bilal, M.** (2020). Rheological properties, structural and thermal elucidation of coal-tar pitches used in the fabrication of multi-directional carbon-carbon composites. *Materials Chemistry and Physics*, 242, 122564.
- **Bilal, M.**, Mehmood, S., Rasheed, T., & Iqbal, H. M. (2019). Antibiotics traces in the aquatic environment: Persistence and adverse environmental impact. *Current Opinion in Environmental Science & Health*.
- Sun, B., **Bilal, M.**, Jia, S., Jiang, Y., & Cui, J. (2019). Design and bio-applications of biological metal-organic frameworks. *Korean Journal of Chemical Engineering*, 36(12), 1949-1964.
- Khan, A., Ali, N., **Bilal, M.**, Malik, S., Badshah, S., & Iqbal, H. (2019). Engineering Functionalized Chitosan-Based Sorbent Material: Characterization and Sorption of Toxic Elements. *Applied Sciences*, 9(23), 5138.
- Ali, N., **Bilal, M.**, Khan, A., Ali, F., & Iqbal, H. M. (2019). Effective exploitation of anionic, nonionic, and nanoparticle-stabilized surfactant foams for petroleum hydrocarbon contaminated soil remediation. *Science of The Total Environment*, 135391.
- Rasheed, T., Nabeel, F., Shafi, S., **Bilal, M.**, & Rizwan, K. (2019). Block copolymer self-assembly mediated aggregation induced emission for selective recognition of picric acid. *Journal of Molecular Liquids*, 296, 111966.
- Ali, N., Ali, F., Saeed, S., Shah, S. S., & **Bilal, M.** (2019). Structural characteristics and electrochemical properties of sulfonated polyimide clay-based composite fabricated by a solution casting method. *Journal of Materials Science: Materials in Electronics*, 30(21), 19164-19172.
- **Bilal, M.**, H.M.N. Iqbal. 2019. Chemical, physical, and biological coordination: An interplay between materials and enzymes as potential platforms for immobilization. *Coordination Chemistry Reviews* 388: 1-23.
- L. Liu, **Bilal, M.**, H.M.N. Iqbal. 2019. Mitigation of environmental pollution by genetically engineered bacteria —current challenges and future perspectives, *Journal: Science of the Total Environment* 667: 444-454.
- M. Rizwan, M. Yar, **Bilal, M.**, T. Rasheed, R. Yahya, A. Raza. 2019. Photodynamic-based Therapeutic modalities to Fight against Cancer – A Review from Synergistic View. *Journal of Drug Delivery Science and Technology* 51: 70-82.
- N. Ishaq, **Bilal, M.**, H.M.N. Iqbal. Medicinal Potentialities of Plant Defensins: A Review with Applied Perspectives. *Medicines* 2019, 6, 29
- **Bilal, M.**, Rasheed, T., Nabeel, F., Iqbal, H. M., & Zhao, Y. (2019). Hazardous contaminants in the environment and their laccase-assisted degradation—A review. *Journal of environmental management*, 234, 253-264.
- **Bilal, M.**, Y. Zhao, T. Rasheed, I. Ahmed, S.T.S. Hassan, M. Z. Nawaz, H.M.N. Iqbal. Biogenic Nanoparticle-Chitosan Conjugates with Antimicrobial, Antibiofilm, and Anticancer Potentialities: Development and Characterization. *Int. J. Environ. Res. Public Health* 2019, 16, 598
- Rasheed, T., Nabeel, F., Raza, A., **Bilal, M.**, & Iqbal, H. M. N. (2019). Biomimetic nanostructures/cues as drug delivery systems: a review. *Materials Today Chemistry*, 13, 147-157.
- Mehmood, S., **Bilal, M.**, Manzoor, R., & Iqbal, H. M. N. (2019). Deciphering the adult brain development complexity by single-cell transcriptome analysis—a review. *Materials Today Chemistry*, 13, 88-97.
- Li, X., Xia, J., Zhu, X., **Bilal, M.**, Tan, Z., & Shi, H. (2019). Construction and characterization of bifunctional cellulases: *Caldicellulosiruptor*-sourced endoglucanase, CBM, and exoglucanase for efficient degradation of lignocellulose. *Biochemical Engineering Journal*, 107363.
- **Bilal, M.**, Iqbal, H. M., & Barceló, D. (2019). Persistence of pesticides-based contaminants in the environment and their effective degradation using laccase-assisted biocatalytic systems. *Science of The Total Environment*, 133896
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List of Book Chapters – Dr. Muhammad Bilal (Bilal, M.)

Chapter Number	Complete Reference and Link	ISBN Number	Publisher
4	Bilal, M. , Rasheed, T., Ullah, A., & Iqbal, H. M. N. (2018). Valorization of Green and Sustainable Advanced Materials from A Biomed Perspective–Potential Applications. <i>Green and Sustainable Advanced Materials: Applications</i> , 2, 19-47. Link: https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119528463.ch2	9781119528463	John Wiley & Sons, Inc., and Scrivener Publishing LLC.
3	Iqbal, H. M. N., Rasheed, T., & Bilal, M. (2018). Design and Processing Aspects of Polymer and Composite Materials. <i>Green and Sustainable Advanced Materials: Processing and Characterization</i> , 1, 155-189. Link: https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119407089.ch7	9781119407089	John Wiley & Sons, Inc., and Scrivener
2	Rasheed, T., Bilal, M. , Abu-Thabit, N. Y., & Iqbal, H. M. N. (2018). The smart chemistry of stimuli-responsive polymeric carriers for target drug delivery applications. In <i>Stimuli Responsive Polymeric Nanocarriers for Drug Delivery Applications, Volume 1</i> (pp. 61-99). Link: https://doi.org/10.1016/B978-0-08-101997-9.00003-5	9780081019986	Elsevier Ltd.
1	Bilal, M. , & Iqbal, H. M. N. (2018). Bio-Based Biopolymers and Their Potential Applications for Bio-and Non-Bio Sectors. <i>Handbook of Biopolymers: Advances and Multifaceted Applications</i> , 23. Link: https://www.crcpress.com/Handbook-of-Biopolymers-Advances-and-Multifaceted-	9789814800174	CRC Press Taylor & Francis

	Applications/Ahmed-Kanchi-Kumar/p/book/9789814800174		Group
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PROJECTS/FUNDING (PI/CO-PI)

No.	ID	Title	Budget	Funding Body	Date
1.	SBZ2019000180	Joint research and development of <i>Bacillus natto</i> and <i>Aspergillus</i> mixed fermented soybean meal feed	700,000 yuan	Jiangsu Province Policy Guidance Program (International Science and Technology Cooperation) Project	June 2019
5.	marinedrugs-270135	Biosorption: An Interplay between Marine Algae and Potentially Toxic Elements—A Review	2000 CHF (Swiss Francs) = 38,350 MXN	Marine Drugs, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	19 February 2018
6.	biosensors-271665	Electrochemical Biosensors: A Solution to Pollution Detection with Reference to Environmental Contaminants	650 CHF (Swiss Francs) = 12,500 MXN	Biosensors, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	24 March 2018
10.	ijerph-425668	Biogenic Nanoparticle–Chitosan Conjugates with Antimicrobial, Antibiofilm, and Anticancer Potentialities: Development and Characterization	1800 CHF (Swiss Francs) = 34,500 MXN	IJERPH, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	19 February 2019
11.	medicines-448499	Medicinal Potentialities of Plant Defensins: A Review with Applied Perspectives	350 CHF (Swiss Francs) = 6,700 MXN	Medicines, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	19 February 2019
12.	marinedrugs-454602	Mexican Microalgae Biodiversity and State-Of-The-Art Extraction Strategies to Meet Sustainable Circular Economy Challenges: High-Value Compounds and Their Applied Perspectives	2000 CHF (Swiss Francs) = 38,350 MXN	Marine Drugs, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	18 March 2019
13.	molecules-471560	Endogenous and Exogenous Stimuli-Responsive Drug Delivery Systems for Programmed Site-Specific Release	1800 CHF (Swiss Francs) = 34,500 MXN	Molecules, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	21 March 2019
14.	processes-469951	Metabolic Engineering and Fermentation Process Strategies for L-Tryptophan Production by <i>Escherichia coli</i>	1100 CHF (Swiss Francs) = 20,500 MXN	Molecules, MDPI, St. Alban-Anlage 66, 4052 Basel, Switzerland	12 April 2019

References

References will be furnished upon request!

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THIS AGREEMENT is made effective as of **22nd December 2020** between Dr/Prof. **Muhammad Bilal** (“ASSISTANT EDITOR”) and **JOURNAL OF EXPERIMENTAL BIOLOGY AND AGRICULTURAL SCIENCES**, with its principal office located at **DIDWANA, NAGPUR, RAJASTHAN, INDIA**.

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