



Khaled M Khleifat

Professor of Microbiology and Biotechnology

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PERSONAL DETAILS:

Nationality	: Jordanian
Place & Date of Birth	: Jordan, Wadi Mousa. 15 th March, 1966
Marital Status	: Married
Dependents	: 2

WORK ADDRESS

Dept. of Biology, College of Science, Mutah University, P.O.Box
(7) Mutah, Karak, 61710, Jordan
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EDUCATION

1972-	1981 AL-Taybeh Preparatory School, Maan, Jordan
1982-	1984 Maan Secondary School, Maan, Jordan
1984-	1988 Biology Dept. Faculty of Science, Sallah-Addin, University, Arbil, Iraq
1990-	1993 Biology Dept. Faculty of Science, Ankara, Turkey
1995-	1999 Biology Dept. Illinois Institute of Technology, Chicago, USA

DEGREE

1988	B. Sc. Microbiology, Faculty of Sciences, Arbil, Iraq
1993	M. Sc. Biology, Faculty of Sciences, Ankara, Turkey
1999	Ph. D. Biology (Illinois Institute of Technology, Chicago, USA)

Ph.D. THESIS

2, 4-DNT Dioxygenase Purification from Recombinant E. coli Strain PFJS39, its Characterization and Interaction With the bacterial Hemoglobin Expressed by vgb.

M.Sc. THESIS

Ultra-Structure of Kidney After Bile Duct Ligation in Rabbit

ACADEMIC RANKS

- **1999- 2004** Assistant professor, Mutah University, Jordan
- **2004-2008** Associate Professor, Mutah University, Jordan
- **8/8/2008** Professor in Microbiology (With one year seniority)

FIELD OF SPECIALIZATION

Microbiology (MICROBIAL BIOTECHNOLOGY)

Gene Cloning, Enzyme Purification, Identification of bacteria, Bioremediation, Heavy Metal Uptake, Biochemical and Physiological Studies, Environmental Pollution and mathematical modeling of the biodegradation

CURRENT RESEARCH INTERESTS

- Isolation and identification of organic compounds-degrading bacteria, in different locations in south Jordan.
- Heavy metals uptake in bacteria.
- Bacterial hemoglobin biotechnology:
 - effect on heavy metal bioaccumulation,
 - enzyme productivity,
 - response to antioxidants in bacteria.
- Some local work on environmental pollution including bacterial composition of waste water, Enzyme purification and kinetics.

AWARDS

- **2017** Staff Mobility For Training (Academic Visitor), Staffordshire University, UK, Erasmus+KA, EU-funded academic project programme agreement no. 2 18.1.2017-4.2.2017
- **2010-** DFG preparatory short visit scholarship (Host was Karl-Josef Dietz Bilafeld University/Germany), Jan 10th - 31st 2011.
- **2009** The Scientific Prize for Young Arab Researchers–Abdul Hameed Shoman
- **2008** Attained a one-year seniority for promotion purpose
- **1995-1999** Mutah University Scholarship for Completing the PhD at Chicago, USA.
- **1990-1993** Ministry of Higher Education Scholarship for Completing the MSc, Ankara University, Ankara,, Turkey.
- **1984-1988** Ministry of Education Scholarship for Completing the BSc at Irbil, Iraq.

QUALITY and ACCREDITATION EXPERIENCES

- Develop a complete plan for the establishment of the Department of Applied Life Sciences at Tafila University, Tafila, Jordan
- Chairman of Quality Committee, Department of Life Sciences, Mutah University, Jordan
- Member of a committee to develop the general questions for the proficiency exam for undergraduate students in Jordanian universities
- Member of several committees to approve specialization programs in biology and applied biology
- Enhancing Quality Assurance Management in Jordanian Universities, EQuAM-Training on internal Quality Assurance Management, Sapienza University, Rome, Italy

GRANTS and PROJECTS

- 1,100,000€** Developing tools for sustainable food production in Mediterranean area using microbes (**SUPREME**). ERANETMED-Environmental Challenges and Solutions for Vulnerable Communities. Participant researchers from Italy, Cyprus, Greece, Algeria and Jordan (Mutah University),. Researchers from Jordan are Prof. Dr. Khaled M Khleifat, and Prof. Dr. Tayel Al-Hasan, Mutah University: Starting Date: may1st 2017
- 70,000€** Partner and Institutional Coordinator, International credit mobility Erasmus +, projectKA1 with Staffordshire University, Grant no, 2015-2-UK01- KA107-022799, 2017 (Tafila Technical University).
- 100,000 SR** 2,4-DCBA biodegradation were obtained from Taibah University, Deanship of Scientific Research, Saudi Arabia

- JD 117,000** Mohammad Wedyan, Khaled Khleifat, Ahmad Alokla (2009) The impact of the Red Sea Canal Project - (Channel of peace) on the ecosystem of the Dead Sea. Research Support Fund, Ministry of higher Education and Scientific Research, Amman, Jordan
- JD 10,000** Antioxidant enzymes and minerals regarding rare oxidation in erythrocytes disease idiocy Mongolian blood in Karak, Mutah University, Jordan
- JD 7,150** Study the effects of Bacterial Hemoglobin Biotechnology on the Detoxification of Heavy Metals and Beta Galactosidase Activity , Mutah University, Jordan
- JD 25,000** Several other grant proposals were obtained from Mutah University, Deanship of Scientific Research and Taibah University-Saudi Arabia

ACADEMIC AND ADMINISTRATION EXPERIENCE

- 2017-now** A liaison officer for Prince Hassan Award for Scientific Excellence (The Higher Council for Science and Technology, Amman, Jordan 2017) , in Mutah University
- 2014-2016** Vice President for Administrative and Financial Affairs, Tafila Technical University (TTU), Jordan
- 2014-2016** Acting President of the Tafila Technical University several times in the absence of the President of the University
- 2017-now** Chairman of the Quality assurance Committee, Department of Biology, Mutah University. Karak, Jordan
- 2016- 2017** Member of the Council of the Faculty of Science, Mutah University, Jordan
- 2016-now** Member of the research committee of the Faculty of Science, Mutah University, Jordan
- 2016-now** Member of the graduate committee of the biology department, Mutah University, Jordan
- 2014- 2016** Chairman of the Accreditation Committee for Journals accredited for promotion purposes. Tafila, Technical University, Tafila, Jordan
- 2014- 2016** Chairman of the Human Resources Committee-Tafila Technical University, Tafila, Jordan
- 2014- 2016** Chairman of the Central Tenders Committee-Tafila Technical University, Tafila, Jordan
- 2014- 2016** Chairman of the health-insurance Tafila Technical University, Tafila, Jordan
- 2014- 2016** Chairman of the on-campus housing committee Tafila Technical University, Tafila, Jordan
- 2014- 2016** Chairman of several committees for the drafting of several systems at the University of Tafila, including the financial, the supplies, investment and provident fund and movement and travel-systems, Tafila Technical University, Tafila, Jordan
- 2014- 2016** Member of the scholarships Committee -Tafila Technical University, Tafila, Jordan
- 2014- 2016** Member of the Appointment and Promotion Committee-Tafila Technical University, Tafila, Jordan
- 2014- 2016** Member of the Committee of Scientific Research-Tafila Technical University, Tafila, Jordan
- 2014- 2016** Member of the University Council, Tafila Technical University, Tafila, Jordan
- 2013- 2017** Al-Ahaliyya Amman University Trustees Board Member

2009-9-22nd –9-1st 2012

- Dean of Faculty of Science, Mutah University, Jordan

2009-9-1st -22-11.2009

- Vice Dean of Faculty of Science, Mutah University, Jordan

2009- 2013 Philadelphia University Trustees Board Member,

2000- 2003 Head of the Dept. of Biology, Mutah University, Jordan

2007- 2008 Vice Dean of Faculty of Science, Mutah University, Jordan

2007- 2008 Chairman of post graduate committee in the Faculty of Science, Mutah University, Jordan

2000-2003 Chairman of the Postgraduate Studies Committee at the Dept. of Biology, Mutah University, Jordan

2007-2008 Member of post graduate committee in the Mutah University.

2007-2008 Member of the Council of the Faculty of Science, Mutah University, Jordan

2009-2012 Member of the Committee scholarships- Mutah University, Jordan

2009-2012 Member of the Appointment and Promotion Committee- Mutah University, Jordan

2009-2012 Member of University Council/Mutah University, Jordan

2009-2012 Students Concerns-Committee Member/Mutah University, Jordan

2009-2012 Member of post graduate committee in the Mutah University.

As Chairman of Tenders Committee at Tafila Technical University, The Most Prominent Achievements Were As Follows:

1. Participating in negotiations with the bidding companies (estimated at about 15 million Jordanian dinars as Gulf grants) at the university in order to alleviate the capital burden in addition to obtaining two cars for the university worth nearly 70,000 Jordanian dinars and receiving 20,000 dinars for the student fund

2. Participating in the tender for alternative solar power generation capacity of 1 MW. through which university buildings were supplied with solar cells that produced electricity to meet the University's energy needs.

3. Implementation and follow-up of the construction of halls, admission, registration buildings, computer center, engineering workshops and the establishment of the laboratories of the department of applied biology, which was established for the first time

4. Establishing the radio station of Tafila Technical University and follow purchasing its equipment

5. Participation in the Energy Committee with the Ministry of Energy in enabling the university to invest in energy through direct offers to reduce the financial burden

SOCIAL ACTIVITIES

- A liaison officer (representative of Mutah University) of the Regional Initiative on Water, Energy and Food Interrelationship (MINARET) held in Karak Municipality. The project was launched by the Royal Scientific Society / National Center for Energy Research (RSS / NERC) in partnership with the International Union for the Conservation of Nature (IUCN)) And Future Pioneers Association for Community Empowerment (FPEC) and funding from the Swedish International Development Agency (Sida).

- Member of the Higher Advisory Committee to the Office of Petra Development and Tourism Region Authority, Jordan

- Several thanks books from charitable organizations in Tafileh for support and consultation.

ACADEMIC RECORD

- | | | |
|-------------|----------------------------|---|
| 1993-1994 | Lecturer | • in Biology, Al-Zaytona University, Amman, Jordan |
| 1994-1995 | Teaching assistant | • Dept. of Biology, Mutah University, Karak, Jordan |
| 1997-1998 | Teaching assistant | • Dept. of Biology, Illinois Institute of Technology, Chicago, Illinois, USA |
| 1997-1998 | Lecturer | • Part-time at Robert Morris College, Chicago, IL, USA |
| 1999-1999 | Post Doctorate | • at Medical School, University of Illinois at Chicago, USA |
| 1999- 2004 | Assistant Professor | • Mutah University, Jordan |
| 2000 - 2003 | Chairman | • of the Postgraduate Studies Committee at the Dept. of Biology, Mutah University, Jordan |
| 2000-2005 | Member | • of the Council of the Faculty of Science, Mutah University, Jordan |
| 2004-2005 | • | Member of student discipline committee in the faculty of Sciences, Mutah University, Jordan |
| 2003-onward | • | Chair and member of several interrogation committees for academic staff and employees of the faculty of sciences. |
| 2005-onward | • | Member of the Research Committee in the college of Science, Mutah University, Karak, Jordan |
| 2006-2007 | • | On sabbatical leave, Sohar University, Sohar, Oman |
| 2006-2007 | • | Member of the Research Committee in the Sohar University, Sohar, Oman |

RESEARCH EXPERIENCE

- ✓ I Intended several works in my national and international conferences and published more than 45 papers. Right now I am Supervising 6 Master Students and 40 MSc students were already graduated through 2003-2016.

Some of MSc Students and Their Thesis Titles:

- **The effect of different carbon and nitrogen sources on copper uptake by three strain of *E. coli***, (2004). Muhamad Odeh Al-limoun.
- **Factors affecting the production of β -Galactosidase in different Strains of *Enterobacter aerogenes***, (2004) Khalid Y. Al-Sharafa, (Co-advisor).
- **Phenol biodegradation by klebsiella Oxytoca**, (2005). Ibraheam S. Al- Majali.
- **Effect of wastewater treatment on the bacteria Quality And Quantity at Mutah University plant**, (2005). Waad Al-Shamailah.
- **Isolation of Lanate-degrading bacteria from Jordan Valley**, Feryal Khraisat: University of Jordan, (Co-advisor)
- **Biodegradation of phenol by isolated bacteria from soil of Al-kherbah Al-Samrah in Jordan**, (2006). Sabah Eid Abu – Khalil.
- **Biodegradation of some surfactants by two bacterial Consortiums**, (2005) Nadia Ahmad Al-Maabreh.
- **Activation and inhibition of plant polyphenol oxidase enzyme**, (2004). (Co-advisor): Elshafei M. Badawi.

- **Biodegradation of linear Alkylbenzene Sulfonate by a pure culture of bacteria isolated from Al-kherbeh Al-Samrah, Jordan, (2006).** Reema Atallah Al-Halasa.
- **Effect of Herbal plants on the growth of *pseudomonase aeruginosa*, (2006) (Co-advisor),** Haitham N. Qaralleh.
- **Isolation of bacteria causing urinary tract infections, (2005).** Jafar Juma Hassony Al-Kurishy.
- **Using Chlorobenzoic Acid Compounds as growth substrate and detection of their Degrading enzyme in isolated Aeromonas Hydrophlia, (2009).** (Co-advisor). Farah Mohammad Salih Turkey.
- **Biodegradation of 2-Chlorobenzoic acid by *Acinetobacter calcoaceticus*: Effect of some growth conditions, (2009).** Ibrahim Khaled AL- Kafawin:
- **Cadmium-resistant bacteria isolated from Petra City wastewater treatment station, (2009).** Nawel Rashid Adjeroud:
- **Using 3-4 dichlorobenzoic acid as carbon source by *Corynbacterium argentinaea*,** Shadiya Al-Majali.
- **Biodegradation of 3-4 dichlorobenzoic acid by bacterial strains isolated from wastewater,** Haya Alawi.
- **Antibiotic activity of some fungal isolates from Petra province, Jordan.** Ahmad Salim Khleifat.
- **Assessment of the antioxidant and antimicrobial potentials of *Rubus Sanguineus* friv. (Rosaceae) leaves and fruits.** Rana Hussain Zeidan.
- **Perforated appendicitis and its effect on urinary tract system,** Baraa Abdulhamid Fraijat.
- **Antimicrobial Activity of bacterial isolates against some pathogenic Bacteria.** Sakhaa Al-Dardasawi.
- **Enhancement of Lipase activity in bacteria by bacterial hemoglobin gene, *vgb*.** Al-Ananza Maisa.
- **Purification and Characterization of Organic Solvent Tolerant Extracellular Lipase from Bacterial Isolate K5B4.** Sadam Attalah Alrawashdeh
- **Antimicrobial and antioxidant activity of honey produced in different Jordanian-producing territories** Sundus Adaileh
- **Characterization, Purification and isolation of extracellular lipase-producing bacteria toward different organic solvents.** Reham Majali.
- **. Antimicrobial and antioxidants of *Lantana camara* and *Capparis spinose*.** Mohammad Jaafreh
- **The Production of organic solvents-resistant lipase In local bacterial isolate: optimization of growth conditions.** Nawal Hamadin
- **. Antimicrobial activity of *Verbascum sinaiticum*** Ahmad Alsaudy
- I was a member of MSc thesis defense committee for more than 100 MSc students. Some of the projects in microbiology that were supported by university grants Include:
 - ✓ Using Bacterial Hemoglobin Gene, *vgb* Biotechnology as a Positive Enhancer for the Biodegradation of Organic Compounds,
 - ✓ Effect of Waste Water Treatments on the Bacterial Composition of the Karak Hospital Waste Water (local study)
 - ✓ Isolation of Heavy Metal-Resistant Bacteria from Industrial Karak City and Determine if the gene responsible for heavy metal resistance is Chromosomal or on Plasmid

- ✓ Correlation of bacterial hemoglobin and aeration and their effect on α -amylase activity in the transformed *Enterobacter aerogenes*
- ✓ Biodegradation activity of organic compounds by bacteria isolated from wastewater and soil.
- ✓ Isolation and Identification of Pesticides-degrading Bacteria from Jordan Valley.
- ✓ Effect of chlorination of wastewater on the antibiotic-resistant profile (Petra province wastewater treatment plant, South of Jordan)

CONFERENCES

- 1999 American Society for Microbiology Conference, Chicago, USA
- 2000 2nd Euro conference for Biometals, Dresden, Germany
- 2001 2nd Conference of the Life Sciences, Yarmouk University, Irbid, Jordan
- 2002 International Conference for Biotechnology Safety, Damascus, Syria
- 2006 "Bioinformatics Workshop " that was held in the Dead Sea-Jordan (May 29- 30, 2006)
- 2006 Workshop on Bioinformatics (Cornel University, Ethica, NY, USA: using database for gene sequencing and possible application in the Dead Sea region).
- 2006 The Second International Water Reuse Conference, June 6-9 2005, Amman, Jordan.
- 2007 Kinetics of phenol biodegradation from aqueous solution using *Ewingella Americana*, 5th Int. Conference for Biological Sciences, Tanta University, Tanta, Egypt.
- 2009 Chemical composition and antibacterial activities of essential oil of *Thymus Capitatus* from Jordan. Programme and abstract book: 23rd Malaysian Society of Pharmacology and Physiology Scientific Meeting. 12-13 May 2009. Kuala Lumpur. 92
- 2009 Scientific Week at Science Faculty, Mutah University, Karak, Jordan (Chairman of the Scientific Week)
- 2010 –May1st: Materials in Jordan: Progress, Princess Sumaya University For Technology, Amman- Jordan: Sponsored by Alexander vHumboldt (Stiftung / Foundation
- 2010 Chlorination Treatment Quality and Its Impact on Gram Negative Bacterial Composition of Recycled Wastewater” Khaled Khleifat et al. (2010). International Sustainable Water And Wastewater Management Symposium (USAYS), Konya, Turkey
- 2013 Visiting Professor, IIT, Chicago, USA, invited by Prof. Ben Stark (two weeks) to give lectures about bacterial hemoglobin (Oct 5th □ Oct 17th)
- 29.3-2.4.2015 General Conference of the union of Arab Universities, Lebanon cycle, Beirut, Lebanon
- 11-12 June 2015 Enhancing Quality Assurance Management in Jordanian Universities, EQuAM-Training on internal Quality Assurance Management, Sapienza University, Rome, Italy
- 2016 10th Euro conference for Biometals, Dresden, Germany

LEARNED SOCIETIES

Membership of:

- Editorial Board of Online Journal of Biological Sciences, Pakistan, 2001-2004

- American Association for the Advancement of Science (AAAS) 2003-2005
- American Chemical Society (ACS) 2004-2005
- American Society for Microbiology (ASM) 2003-2005
- Editorial Board of Mutah Lil-Buhuth Waddirasaat, Mutah University, Jordan (2008-2010)
- Scientific Committee Materials in Jordan Workshop (2010), Princess Sumaya University For Technology, Amman-Jordan: Supported by Alexander von Humboldt (Stiftung/Foundation)

ANONYMOUS REVIEWER for JOURNALS

- Enzyme and Microbial Technology, elsiever Publisher
- Journal of Hazordous Materials, elsiever Publisher
- Current Microbiology (Springer-Verlag, USA)
- Biochemical Engineering Journal, elsiever Publisher
- Online Journal of Biological Sciences (ANSInet)
- Mutah Lil-Buhuth Waddirasaat, Mutah University, Jordan
- Journal of Chemical Engineering
- African J. Food Science
- Journal of Basic Microbiology (Wiley and sons)
- Foodborne Pathogens and Disease, USA
- Water Resource Technology , elsiever Publisher
- Bioremediation

•A reviewer for several Ph.D. thesis's from outside Jordan

•A reviewer for more than 50 promotions to the rank of professor and associate professor of outside Jordan

COURSES TAUGHT

- | | |
|--|--------------------------------------|
| ✓ Advanced Microbial Physiology | ✓ Genetics and Microbial Genetics |
| ✓ General Microbiology | ✓ Cell Biology |
| ✓ Biotechnology | ✓ Molecular Biology |
| ✓ General Biology (Section 1 and 2) | ✓ Practical Microbiology, |
| ✓ Practical General Biology 1 & 2 | ✓ Practical Medical |
| ✓ Biology for Nursing Students | ✓ Microbiology for Nursing Student |
| ✓ Practical Molecular Biology | ✓ Nutrition (Sohar University, Oman) |
| ✓ Practical Biochemistry (IIT, Chicago, USA) | |
| ✓ Environmental Science and Medical Biology (At Robert Morris College, Chicago, USA) | |

Skills

- ICDL,
- Three languages (English, Turkish and Arabic)

AUTHOR PROFILE (SCOPUS)

Khleifat, Khaled M.

University of Mutah, Department of Biology, Karak, Jordan

Author ID: 6508378475

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Documents 37

Citations:: 436 total citations by 370 documents

h-index: 12

AUTHOR PROFILE (Google Scholar)

Khleifat Khaled

	All	Since 2012
<u>Citations</u>	777	488
<u>h-index</u>	15	12
<u>i10-index</u>	20	16

LIST OF PUBLICATIONS:**Dr. Khaled M. Khleifat**

1. **Khleifat KM**; Al-limoun et al. (2019). Characterization of fungal mediated synthesis of silver nanoparticles (AgNPs): optimization of two-step formation process and antibacterial activity
2. **Khleifat KM** et al (2018). Correlation between genetic diversity, chemical composition and antimicrobial activity of *Juniperus phoenicea* L.
3. **Khleifat KM**; Al-limoun M; Matar, S., Alsharafa K., Qaralleh H., Tarawneh (2018). Antibacterial Activity, Synergistic Effect and Chemical Composition of Essential Oils from *Centaurea damascene*. Submitted
4. **Khleifat KM**; Al-limoun M; Alsharafa K., Qaralleh H., Tarawneh (2018). Tendency of using different aromatic compounds as substrates by 2,4-DNT dioxygenase expressed by pJS39 carrying the gene *dntA* from *Burkholderia* sp. Strain DNT. In Press, **Bioremediation J.**
5. Allimoun, M., **Khleifat, KM.** (2018). Purification and Characterization of a Mesophilic Organic Solvent Tolerant Lipase Produced by *Acinetobacter* sp. K5b4.(In Press, *Biocatalysis and Biotransformation*).
6. Al-Asoufi, A., Khlaifat, A., Al Tarawneh, A., Alsharafa, K., Al-Limoun, M., & **Khleifat, K.** (2017). Bacterial Quality of Urinary Tract Infections in Diabetic and Non Diabetics of the Population of Ma'an Province, Jordan. *PJBS*, 20(4), 179-188.
7. Majali, I.S., Oran S.A., **Khleifat KM.**, Qaralleh, H., Rayyan W., Althunibat, O.Y. 2016. Assessment of the antibacterial effects of *Moringa peregrina* extracts African journal of microbiology research 9(51):2410-2414
8. Althunibat, o.y. Qaralleh, h., Al-Dalin, S.YA., Abboud M., Khleifat KM., Majali I. et. Al (2016). *Effect of thymol and carvacrol, the major components of Thymus capitatus on the growth of Pseudomonas aeruginosa.* J. Pure Appl. Microbiol. 10(1)367-374
9. Allimoun, M., Ananzeh, MR., **Khleifat, KM.** (2015). Screening selection and optimization of extracellular methanol and ethanol tolerant lipase from *Acinetobacter* sp. K5b4. *Int. J. Biosci.* 6, (10). 44-56.
10. **Khleifat** (2015). Biodegradation of 2-Chlorobenzoic Acid by *Enterobacter cloacae*: Growth Kinetics and Effect of Growth Conditions (Accepted): *Bioremediation Journal* 19, Issue 3, 207-217
11. **Khleifat KM.**, Alomari J. Albadry, A. (2014). Prevalence and molecular diversity of *Legionella pneumophila* in domestic hot water systems of private apartments. *British Microbiology Research Journal* (BMRJ)2014, 4(3): 306-316 .
12. Matar, S; Oran, S; **Khleifat, KM**; Zeidan, Rana (2013). Antimicrobial and Antioxidant Activities of Leaf and Fruit Extracts of Jordanian *Rubus sanguineus* Friv. (Rosaceae). *African Journal of Microbiology* 7(44) 5114-5118
13. Tarawneh, K; Halasah, Z.A.; **Khleifat, K.M** et al (2011). Evaluation of cefaclor oral suspensions stability by using reversed phase high performance liquid chromatography and antimicrobial diffusion methods (Pak. J Pharm. Sci, In Press).
14. Qaralleh, H., Idid, S., Saad, S., Susanti, D., Taher, M., **Khleifat, K.** 2010. Antifungal and antibacterial activities of four Malaysian Sponge species (*Petrosiidae*). *J. Med. Mycol.* 20, 315—320
15. Aljundi, I.H., **Khleifat, KM.**, Khlaifat, AM., Ibrahim, AM., Tarawneh, KA., Tarawneh, SA. 2010. Biodegradation of 2-Chlorobenzoic Acid by *Klebsiella oxytoca*: Mathematical Modeling and Effect of Some Growth Conditions. *Industrial & Engineering Chemistry Research* 49 (16), 7159-7167

16. Tarawneh K, Irshaid F Jaran AS, Ezealarab, M and **Khleifat, KM** (2010) Evaluation of Antibacterial and Antioxidant Activities of Methanolic Extracts of Some Medicinal Plants in Northern Part of Jordan. *Journal of Biological Sciences* 10(4): 325-332
17. **Khleifat, K. M.** 2009.Characterization of 2,4-DNT Dioxygenase From Recombinant *E. coli* Strain PFJS39, Its Direct Interaction with *Vitreoscilla* Hemoglobin. *Bioremediation J.*, 14 (1)38 – 53
18. Althunibat, O.Y., Al-Mustafa, A. H., Tarawneh, K., **Khleifat, K.M.**, Ridzwan, B.H., Qaralleh. H. N 2010. Protective role of *Punica granatum* L. peel extract against oxidative damage in experimental diabetic rats" .*Process Biochemistry*, 45 (4) 581-585
19. Aljundi, I., **Khleifat, K. M.** (2009). Biosorption of Lead by *E. coli* Strains Expressing *Vitreoscilla* hemoglobin: Isotherm modeling with two- and three-parameter models *Eng. Life Sci.* 2010, 10, No. 3, 225–232
20. **Khleifat KM**; Nawayseh, K, Adjeroud, NR; Tarawneh, KA, A, Adjeroud RM, Abdelgani, A. 2009. Effect of cadmium-resistance plasmid on Cd⁺² biosorption, uptake and adsorption by *Klebsiella oxytoca*. *Bioremediation J.* 13 (4) 159-170
21. **Khleifat, KM**; Khaled A Tarawneh†, Halasah, Rima A, Reyad Shawabkeh, Zina Halasah. 2009. Biodegradation of Linear Alkylbenzene Sulfonate by *Burkholderia sp.*: Effect of some growth conditions. *Int. J. Agri. Biol. Sci.* 12:17-25.
22. Abboud, MA., Aljundi, IH, **Khleifat KM**, Dmour, S. 2010. Biodegradation kinetics and modeling of whey lactose by bacterial hemoglobinVHb-expressing *E. coli* strain. *Biochemical Eng.J.* 48 (2) 166-172
23. Qaraleh, H.N., Abboud, M.M., Khleifat, K.M., Tarawneh, k.A. and Althunibat, O.M (2009). Antibacterial activity in Vitro of *Thymus capitatus* from Jordan. *Pak. J. Pharm.* 22 (3), 247-251
24. Abboud, M., Al-Tarawneh Amjad, **Khleifat KM** Tarawneh Khaled and Homodi Saed.(2009) Copper uptake *in vivo* and *in vitro* by *Pseudomonas aeruginosa* isolated from burn-infected patients. *Curr Microbiol* (2009) 59:282–287
25. Tarawneh, K.A; Sharaf Omar, Osama Twissi, **Khleifat,KM**; Ahmad Al-Mustafa and Khaled Al-Sharafa (2008). Antifungal and antioxidant effects of extracts of some medicinal plant species growing in south Jordan. *Bull. Fac. Agric., Cairo Univ.*,59 (2008): 242-249.
26. Khaled A Tarawneh Nafe M. Al-Tawarah, Adel Abdelghani, Ahmad M. Al-Majali AND **Khaled M Khleifat** (2008).Characterization of Verotoxigenic *Escherichia coli* (VTEC) isolated from slaughtered small ruminants and slaughterhouses in Southern Jordan. *J Basic Microbiol.* 48 (1-8).
27. Tarawneh, K, **Khleifat, KM**; Ahmed Al-Mustafa, Nadia Alioui, Mohammad A. Wedyan and Stephen J. Free (2008). Temporal Expression of *Neurospora crassa* Tyrosinase Gene Under The Control of Glucose–Repressible Gene-1(Grg-1) Promoter. *Aust. J. Basic Appl. Sci.* 2 (4) 805-814
28. Abbod M. M; **Khleifat KM**; Tarawneh KA; Al-Mustafa AH; ; Elshafei Badawi M (2008). Effects of Free Amino acids on Catechol Oxidase From Different Plant Sources. *Advances in Food Sciences Journal*, 30 (1).1-8
29. Tarawneh, KA., Wedyan, M., Al-zou'bi, MA **Khleifat, K.M.**, Tarawneh, A. (2008). Isolation and characterization of halophilic bacteria from the Dead Sea Coast, Jordan. *Adv. Environ. Biol.* 2(2): 63-69, 2008
30. **Khleifat KM.** (2007). Biodegradation of Phenol by *Actinobacillus* sp: mathematical interpretation and effect of some growth conditions. *Bioremediation Journal*, 11 (3): 1-10
31. **Khleifat KM** and Ahmed H Al-Mustafa (2007). The Effect of Some Nitrosative Agents on the Growth of *vgb*-bearing *Enterobacter aerogenes* Strains . *Curr. Microbiol.* 55 (1):30-5. 2007

32. **Khleifat, K.M.** Khaled A Tarawneh, Amjad A Al-Tarawneh, Khalid AlSharafa; Mohammad A Wedyan (2008). Growth kinetics and toxicity of *Enterobacter cloacae* grown on linear alkylbenzene sulfonate as sole carbon source. *Curr. Microbiol.* 57 (4), 364-370.
33. **Khleifat, KM.** (2007). Effect of Substrate Adaptation, Carbon Starvation and Cell Density on the Biodegradation of Phenol by *Actinobacillus* sp. *Fresenius Environmental Bulletin*, 16 (7)726-730
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Teaching Philosophy

I love teaching! I strongly believe, as a biologist, that it is my own ethical duty not only to help my students, but also to, positively, challenge them and reach to achieve the following goals: First, To correct some of students' misconceptions in biology and then to teach them the major ideas I believe in, of course, the ones supported by academic logic and reason and finally instill in them a love for the subject in question, the thing that would make them involved in all tasks, experiments and skills of the material.

Through my academic experience, I always resorted to communication in education; in other words, I taught my students not to accept any idea, thought, new information and to take them without questioning them thoroughly. I instead, always insisted they argue, discuss, and question every tiny idea and subject matter. That is to say, I abhor spoon-feeding and urge my students to resort to academic disciplines of research and academic excellence.

As a major step in classroom procedure, I always seek to teach the ABCs of the course despite its level. I believe teaching simple basic rules for each course will make unforgettable experience for students and they will never forget them. That's why I always like to Go Easy! Especially for beginners.

I believe that students who know and study the basics in a good way will enhance their own learning patterns through self-study and motivation. This is going to teach them not to be passive recipient. Students are supposed to leave my class with basic biological skills that enable them to engage, build and develop ideas.

Brainstorming is a great technique to be employed. This will enable us gather as much ideas, thoughts, ideas as possible. This also is going to create a sense of challenge, especially with some questions that may arise through discussions, which be given to students to discuss in teams and which will pave their way to envision new subject matters and areas of specialty in Biology. These topics and questions will also be generated into ideas to be explored in depth among groups. High achiever students will help as co-teachers, who will help other students get along other students. Low-achiever students should never be unattended and always should be observed. Giving them simple tasks is important because they need to be dealt as little babies, who need special care and attention. Doing this will always motivate them.

Most importantly are exams. Exams are not intended to only assess students' performance; they should consider his teaching abilities by allowing him to make presentations and practice being a teacher. Also, they should partly be home exam portions because they allow students to search and study, Finally, they can be students' choice by orally testing them, after specifying the topics they are interested in. Of course, there are always times when we need to be flexible and update our learning and teaching methods every now and then. Class room and libraries are not always the only places for education. There should be other places such as in the garden, in other institutions and academic organizations that provide hi-tech labs and advanced equipment.