

## CURRICULUM VITAE



**Ahmad M. Al-Ajlouni**  
**Professor and Vice President**  
**Faculty of Science and Arts**  
**Jordan University of Science & Technology**  
**Irbid 22110, JORDAN**

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Office Ph: (962) 2-7201000/Ex. 22294

Mobil: (+962) 795559017

fax: (962) 2-7201071

e-mails: [ajlouni@just.edu.jo](mailto:ajlouni@just.edu.jo)

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### **Personal**

Date and Place of Birth: December 1, 1963 (As-Sarih-Jordan)

-Married (three children)

### **Education**

Aug. 1995 – Aug. 1996

Post-doctorate, Kent State University

Aug. 1991 - Aug. 1995

Iowa State University, Ames, Iowa (**Ph.D.**)

Aug. 1986 - Dec. 1988

Yarmouk University, Irbid, Jordan (**M.Sc.**)

Aug. 1982 - June 1986

Yarmouk University, Irbid, Jordan (**B. Sc.**)

### **Qualifications**

A professor of chemistry obtained my PhD in Organic/Organometallic /Chemical kinetics and homogeneous catalysis from Iowa State University/ USA. I have been engaged in teaching, scientific research, and in academic committees, councils, and leadership positions (such as *department chair*, *vice dean*, *dean* and *vice president*) at diverse international universities (JUST, Kent State University, Kansas State University, Technical University of Munich, and King Saud Bin Abdulaziz University for Health Sciences/ Saudi Arabia). I have been carrying out research on homogeneous catalysis of organic and organic reactions and built strong scientific cooperation with researchers at Iowa State, Kent State, and Technical University of Munich, supervised many master and PhD students, and have published many papers in excellent international journals. I have obtained several prestigious international research awards, such as Alexander von Humboldt, George Forster, DAAD and ISF.

I have attended and deliver several workshops in quality assurance in higher education which cover courses, curriculums and programs development based on specific objectives and students learning outcomes. I have built up necessary skills acquired in effective teaching, and scientific research. I have gained experience in strategic and action planning, academic monitoring and assessment, at all academic levels. Good knowledge of computer software that are commonly used for teaching and research, and related scientific programs. In addition, I have been developing many interpersonal skills, and have gained experience in leadership, time management, organization, negotiation and debating, team work, and situational management.

### **Teaching and Academic Services**

**Dec. 2021 – present**

**Vice President**, Jordan University of Science and Technology, Irbid – Jordan

**Sept. 2013 – Sept. 2018**

**Visiting Professor**, King Saud Bin Abdulaziz for Health Sciences, Riyadh, Saudi Arabia.

**Sept. 2009 – Sept 2013**

**Dean**: Faculty of Science and Arts, Jordan University of Science and Technology, Irbid – Jordan

**Sept. 2004 –Sept 2006**

**Vice Dean**: Faculty of Science and Arts, Jordan University of Science and Technology, Irbid – Jordan

**Sept. 2002 – Aug. 2004**

**Department Chair**: Department of Chemistry, Jordan University of Science and Technology, Irbid - Jordan.

**April 2008 – present**

**Professor of Chemistry**: Chemistry, Jordan University of Science and Technology, Irbid-Jordan.

Taught general, organic and inorganic chemistry classes and laboratories, and advanced graduate courses which include other academic services in the Department and in the University.

**April 2004 – April 2009**: **Associate Professor of Chemistry**, Chemistry, Jordan University of Science and Technology, Irbid- Jordan.

**Feb. 1999 – April 2004**: **Assistant Professor of Chemistry**, Chemistry, Jordan University of Science and Technology, Irbid- Jordan.

**Sept. 2013 – Sept 2018**

**Professor of Chemistry**: College of Basic Science and Health Profession, King Saud Bin Abdulaziz University for Health Science, Riyadh, Saudi Arabia. Chair of Faculty Enhancement Committee and member of the University Scientific Council.

**Sept. 2006 – Oct. 2007**

**Visiting Associate Professor**: Munich Technical University/ Inorganic Chemistry Department and Institute of Catalysis, Munich, Germany. (**I was granted Alexander von Humboldt Fellowship - Georg Forster Award**)

Supervised graduate (MS and PhD) students' research and delivered short intensive courses in the field of kinetic and catalysis.

Aug. 1998 - Jan. 1999

**Visiting Assistant Professor:** Kansas State University/ Chemistry, Manhattan, Kansas-USA.

Taught organic chemistry I and II (two semester course) and general organic chemistry and laboratory courses for premedical students.

Aug. 1997 - Aug. 1998

**Visiting Assistant Professor:** Kent State University/ Chemistry, Kent, Ohio - USA.

I have taught inorganic and general chemistry and laboratory courses, coordinating and supervising the graduate seminar for the inorganic students and developing a laboratory manual for the senior inorganic laboratory course.

Aug. 1996 - June 1997

**Assistant Professor:** Chemistry Dept., Jordan University of Science and Technology, Irbid - Jordan.

Taught general and inorganic chemistry classes, select new textbooks for the general chemistry courses and develop new manuals for the general chemistry laboratory courses.

Fall 1992, and Fall and Spring 1993/1994

**Teaching Assistant:** Chemistry Department, Iowa State University, Ames, Iowa – USA

Supervised freshman chemistry recitation and laboratory sections and an inorganic laboratory course

Aug 1989-June 1991

**Lecturer:** Chemistry Dept., University of Petroleum and Minerals, Dhahran (Saudi Arabia)

Instructor for freshman chemistry courses, recitation and organic laboratory courses

Aug 1988 - Aug 1989

**Part-Time Lecturer:** Chemistry Dept., Jordan University of Science & Technology, Irbid – Jordan.

Instructor for general, organic, inorganic and analytical laboratory courses

### **Courses taught:**

I have been teaching chemistry courses in different fields (general, inorganic, organic and physical chemistry) at the undergraduate and graduate levels at JUST and other USA universities

#### **At Jordan Univ. Sci. & Tech**

- Chem. 101 General Chemistry I
- Chem. 102 General Chemistry II
- Chem. 103 General Chemistry
- Chem. 104 Organic Chemistry
- Chem. 108 General and Organic Chemistry
- Chem. 112 Organic and Biochemistry
- Chem. 217 organic Chemistry (for medical majors)
- Chem. 222 Inorganic Chemistry I
- Chem. 321 Inorganic Chemistry II
- Chem. 325 Inorganic Chemistry Lab
- Chem. 473 Chemistry Special Topics for Seniors
- Chem. 743 Advanced Kinetics and Mechanisms
- Chem. 791 Graduate Students Seminar

#### **At USA universities**

- Chem 10060 General Chem. I/ Kent State
- Chem 10061 General Chem. II/ Kent State
- Inorganic Chemistry I/ Kent State
- Inorganic Chemistry Lab/ Kent State
- Graduate Seminar/ Kent State
- CHM 350 General Organic Chem./ Kansas
- CHM 531 Organic Chem. I/ Kansas
- CHM 550 Organic Chem. II/ Kansas

#### **Short courses at Technical University of Munich/ Germany**

- Advanced Kinetic and Mechanism
- Homogeneous Catalysis

### **Academic Council and Committees**

- Member of the Recognition of International University Committee, Ministry of Higher Education and Scientific Research, Jordan
- Member of the University Scientific Council (2013-2018)-King Saud Bin Abdulaziz University for Health Sciences (KSAU-HS), Saudi Arabia
- Chair of the Faculty Enhancement Committee (2013-2018)-(KSAU-HS), Saudi Arabia
- Chair of the Faculty Quality and Accreditation Committee (2013-2018), KSAU-HS, Saudi Arabia
- Member of the University Quality and Evaluation Committee (2017-2018), KSAU-HS, Saudi Arabia.
- Member of the Graduate Students Examination Committee (2016-2017), Nayef Security University, Riyadh, Saudi Arabia.
- Member of the Research Council (2009 –2013), Yarmouk University
- Member of the Deans Council (2009 –2013), JUST
- Member of the University Hiring and Promotion Committee (2009 –2013), JUST
- Head of the University Employees Discipline Committee (2010 – 2013), JUST
- Member of the University Hiring and Promotion Committee (2009-2013), JUST
- Member of the University Curriculum Development Committee (2009-2013), JUST
- Member of the University Internal Auditing Committee (2011-2013), JUST
- Member of the University Research Committee (2002-2004), JUST
- Member of the University Graduate Students Committee (2004-2006, 2009-2010, 2012-2013), JUST
- Head of the Faculty of Science Graduate Students Committee (2009-2013), JUST
- Head of the Faculty of Science Research Committee (2009-2013), JUST
- Head of the Faculty Quality Assurance and Accreditation Committee (2007-2009), JUST
- Head of all Department's Academic Committees (2002-2004), JUST

### **Research Interest**

- Catalytic activation of peroxides toward oxidation processes, such as epoxidation of olefins and degradation of organic pollutants.
- Prepare and design new catalysts of Mo(VI), W(VI) and Re(VII) and investigate their catalytic activities, including detail kinetics and reaction mechanisms.
- I have been working (for more that 10 years) in collaboration with Prof. Fritz Kuhn at Technical University of Munich on investigation kinetics and mechanisms of catalytic reactions and their applications in industries. Prof. Kuhn has a high international reputation and build up cooperative research with many international research institutions in Portugal, Singapore, Saudi Arabia (KAUST), UAE (Abu-Dubi Petroluem institute), and many others.

## **Research Awards and Experience**

2009/2010 Abdul Hameed Shoman Arab Researchers Award, Selection committee member for the Chemistry Award.

June 2008 – Sept. 2008

### **Alexander von Humboldt Fellowship:**

Host: Prof. Fritz Kuhn at Technical University of Munich/ Germany.

Stability and catalytic activity studies on Re(VII) and Mo(VI) bipyridine adducts toward activation of tert-butyl hydroperoxide and H<sub>2</sub>O<sub>2</sub> for epoxidation of olefins.

Oct. 2006 – Oct. 2007

### **Alexander von Humboldt Fellowship (Georg Forster Award):**

Host: Prof. Fritz Kuhn at Technical University of Munich/ Germany.

Investigate the kinetics and the mechanisms of oxidation of organic substrates by tert-butyl hydroperoxide and H<sub>2</sub>O<sub>2</sub> catalyzed by Re, Mo and W compounds. Supervise graduate students and teach advanced chemistry courses.

July 2001-Sept 2001

**DAAD Research Scholarship:** Technical University of Munich, Institute of Inorganic Chemistry, Germany. (Host: Prof. W. H. Herrmann and Prof. Fritz Kuhn)

We studied the kinetics and the mechanisms of oxidation of olefins by peroxides as catalyzed by complexes of Re, Mo and W.

June 2000 - Oct. 2000

**Visiting Scientist (Summer grant):** Host: Prof. James Espenson at Iowa State University, Ames Laboratory, Ames, Iowa - USA.

Investigate the catalytic activity of some rhenium compounds to activate H<sub>2</sub>O<sub>2</sub> in Ionic Liquids.

June 1999 - Oct. 1999

**Visiting Scientist (Summer research fund):** Host: Prof. Edwin Gould laboratory in Kent State University/ Chemistry Department, Kent, Ohio (USA).

Study the kinetics of oxidation of hyponitrite with one- and two-electron oxidants.

January 1996- Aug. 1996

**Postdoctoral Research Grant:** Department of Chemistry Kent State University, Kent, Ohio.  
Advisor: Professor Edwin Gould.

Kinetic and mechanistic studies (including some preparations) on the catalytic and noncatalytic oxidations by peroxynitrite.

Aug. 1991- Dec. 1995

**Graduate Students Scholarship:** Department of Chemistry, Iowa State University, Ames, Iowa.

**Research Fellowship** Department of Chemistry, Iowa State University, Ames, Iowa. Preparation of inorganic/ organometallic early transition metal complexes using dry box, Schlenk and vacuum line techniques and characterization of these compounds by UV-vis, FT-IR, NMR and GC-MS spectroscopy.

- Kinetics and mechanistic studies on the catalytic and noncatalytic oxidation of organic substrates (including epoxidation of alkenes and styrenes, and oxidation of

alcohols, diols and phenols) by transition metal complexes in homogenous solutions using stopped-flow technique, diode-array and time-resolved UV-vis spectrophotometry, and NMR methods.

Aug 1986 - Dec 1988

Teaching and Research Fellowships during MS Study: Department of Chemistry, Yarmouk University, Irbid, Jordan.

Synthesis of novel metal carbonyl derivatives using Schlenk and vacuum line techniques, and isolation and purification of these compounds by crystallization and chromatographic methods

### **Graduate Students Supervising**

-Supervised 13 master students and three PhD student.

-Member in examining committees for more than 30 students at JUST and other Universities in Jordan.

### **Publications.**

1. **Al-Ajlouni, A. M.** *Molecular Catalysis*, submitted 2019.
2. M. M. Obeidat, .M. M. Awawdeh, I. Matiatos, **A. M. Al-Ajlouni**, H. Al-Mughaid, *Groundwater For Sustainable Development*, Vol. 12, 2021, Article 100504.
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4. Volume 12, February 2021, 100505
5. A. M. Qandil, N. M. Jamhawi, B. M. Tashtoush, **A. M. Al-Ajlouni**, N. M. Idkadiak, A. A. Obaidat "The hydrolysis kinetics of monobasic and dibasic aminoalkyl esters of ketorolac" *Drug Devel. Indust. Pharm.*, 2013, 39, 9, 1346-1356.
6. M. M. Obeidat, M. Awawdeh, F. Abu Al-Rub and **A. M. Al-Ajlouni**, An innovative nitrate pollution index and multivariate statistical investigations of groundwater chemical quality of Umm Rijam Aquifer (B4), North Yarmouk River Basin, Jordan, INTECH, 2012
7. N. A. F. Al-Rawashdeh, **A. M. Al-Ajlouni**, S. B. Bukallah, and N. Bataineh, "Activation of H<sub>2</sub>O<sub>2</sub> by methyltrioxorhenium(VII) inside  $\beta$ -cyclodextrin," *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, vol. 70, no. 3-4, pp. 471–480, 2011
8. Shatnawi, M. Y.; **Al-Ajlouni, A. M.** "Adduct Formation and Stability of Methyltrioxo-rhenium(VII) with a Series of Aliphatic and Aromatic Nitrogen–Donor Ligands" *Jord. J. Chem.* 4 (2) 2009, 119-130.
9. **Al-Ajlouni, A. M.**; Günyar, A.; Baxter, P. N. W.; Kühn, F. E. "Adduct Formation of Dichlorodioxomolybdenum(VI) and Methyltrioxorhenium(VII) with a New Series of Nitrogen Bidentate Ligands: Formation Constant" *Euro. J. of Inorg. Chem.*, 2009, 1019-1026.
10. **Al-Ajlouni, A. M.**; Zhao, J.; Veljanovski, D.; Capape Miralles, A.; Herdtweck, E.; Kühn, F. E. "Kinetic Studies on the Oxidation of the Methyl Derivative of  $\eta^5$ -Cyclopentadienyl Carbonyl Molybdenum(II) and the use of its Oxidation Products as Olefin Epoxidation Catalysts" *Organometallics* 2009, 28, 639-645.
11. **Al-Ajlouni, A. M.**; Shawakfa, K. Q. Rijal R. "Oxidation of Esteron and Phenols by Peroxynitrite: Kinetics and Mechanism" *Kinetics and Catalysis*, 2009, 50 (1) 96–105..

12. Al-Ajlouni, A. M.; Sağlam, Ö; Diafla, T.; Kühn, F. E. "Kinetic Studies on Phenylphospho-polyperoxotungstates Catalyzed Epoxidation of Olefins with Hydrogen Peroxide" *J. Mol. Cat. A (Chemical)*, 2008, 287 (1-2) 159-164.
13. Al-Ajlouni, A. M.; Daiafla, T. M.; El-khateeb, M. "New Nitrophenyl-Substituted Polyperoxo-tungstate Catalyst: A More Active and Selective for the Oxidation of Sulfides by Hydrogen Peroxide" *J. Mol. Cat. A (Chemical)*, 2007, 275, 139-147.
14. Al-Rosan A.; Al-Ajlouni, A. M. "The Effect of Magnetic Field on Indigo Dyes Bleaching by Hydrogen Peroxide as Catalyzed by Imidazole" *Bull. Chem. Soc. Jap.*, 2007, 80(5), 899-901
15. Masadeh, A.; Obaidat, M.; Al-Ajlouni, A. M. Athamneh, F. S. "Analysis and evaluation of nitrate levels in groundwater at Al-Hashimiya area, Jordan", *Environ. Monit. Asses.*, Published online, May 11/ 2007, 10.1007/s10661-007-9667-5.
16. Al-Ajlouni, A. M.; Valente, A. A.; Nunes, C. D.; Goncalves, I. S.; Santos, A. M.; Veiros, L. F.; Calhorda, M. J.; Pillinger, M.; Romao, C. C.; Kuhn, F. E. "Kinetics and Density Functional Mechanistic Study of Olefin Epoxidation with MoO<sub>2</sub>X<sub>2</sub>L-type Catalyst Precursors (L=Bidentate Lewis base) in the Presence of tert-Butyl Hydroperoxide" *Eur. J. Inorg. Chem.* 2005, 1716-1723.
17. Al-Ajlouni, A. M. "Indigo Dyes as a Kinetic Indicator for Oxidation Reaction: Competition Kinetic Study" *Int. J. Chem. Kin.*, 2005, 37(9), 532-537.
18. Shawakfa, K. Q.; Al-Ajlouni, A. M. "Imidazoles Catalyze Oxidation with Organic Peroxides" *Bull. Chem. Soc. Jap.*, 2004, 77(2), 313-319.
19. Shawakfeh, K. Q.; Al-Ajlouni, A. M.; Ibdah, A. "Synthesis and Selective Oxidation of New Dimeric Steroids" *Acta Chim. Slov.* 2002, 49, 805-813.
20. Kuhn, F. E.; Xue, W.-M.; Al-Ajlouni, A. M.; Santos, A. M.; Zang, S.; Romao, C. C.; Eickerling, G.; Herdtweck, E. "Synthesis and Catalytic Application of Octahedral Lewis Base Adducts of Dichloro and Dialkyl Dioxotungsten(VI)" *Inorg. Chem.* 2002; 41(17); 4468-4477.
21. Bose, R. N.; Al-Ajlouni, A. M.; Volckova, E. "Linkage Isomers Characterization by 2D-NMR Spectroscopy" *J. Chem. Edu.*, 2001, 78, 83-87.
22. Al-Ajlouni, A. M.; Gould, E. S. "Oxidation of Hyponitrous acid/hyponitrite" *J. Chem. Soc., Dalton Trans.*, 2000, 1239-1242
23. Al-Ajlouni, A. M.; Gould, E. S. "Reduction with Hyponitrite" *Inorg. Chem.*, 1999, 38(5) 435.
24. Al-Ajlouni, A. M.; Gould, E. S. "Formal Potentials of Indium(II)" *Res. Chem. Interm.*, 1998, 24(6), 653.
25. Al-Ajlouni, A. M., Paul, P.C.; Gould, E. S. "Decomposition of Peroxynitrite as Catalyzed by Sulfite-Bound Cobalt(III)" *Inorg. Chem.* 1998, 37, 1437.
26. Al-Ajlouni, A. M.; Gould, E. S. "Copper Catalysis in the Sulfite Reduction of Peroxynitrite" *Inorg. Chem.* 1997, 36, 362-365.
27. Al-Ajlouni, A. M.; Gould, E.S. "Oxidation with Peroxynitrite" *Inorg. Chem.* 1996, 35, 7892-7896.
28. Zhu, Z.; Al-Ajlouni, A. M.; Espenson, J. H. "Convenient Synthesis of Bis(alkoxy)rhenium (VII) Complexes" *Inorg. Chem.* 1996, 35, 1408-1409.
29. Al-Ajlouni, A. M.; Espenson, J. H. "Kinetics and Mechanism of the Epoxidation of Alkyl-Substituted Alkenes by Hydrogen Peroxide, Catalyzed by Methylrhenium Trioxide" *J. Org. Chem.* 1996, 61, 3969-3976.
30. Al-Ajlouni, A. M.; Espenson, J. H. "Kinetics and Mechanism of Catalytic Epoxidation of Styrenes by Hydrogen Peroxide Using Methylrhenium Trioxide, CH<sub>3</sub>ReO<sub>3</sub>, as a Catalyst" *J. Am. Chem. Soc.* 1995, 117, 9243-9250.

31. **Al-Ajlouni, A. M.**; Bakac, A.; Espenson, J. H. "Hydride Abstraction from 1,2-Diols by the Pentaqua(oxo)chromium(IV) Ion" *Inorg. Chem.* 1994, 33, 1011-1014.
32. **Al-Ajlouni, A. M.**; Bakac, A.; Espenson, J. H. "Kinetics and Mechanism of Oxidation of Phenols by Oxochromium(IV) Ion" *Inorg. Chem.* 1993, 32, 5792-5796.
33. **Al-Ajlouni, A. M.**; Espenson, J. H.; Bakac, A. "Reaction of Hydrogen Peroxide with Oxochromium(IV) Ion by Hydride Transfer" *Inorg. Chem.* 1993, 32, 3162-3165.
34. **Al-Ajlouni, A. M.** "Photolytic and Thermal Reactions of  $\text{FeCp(CO)}_2\text{SCOR}$  with  $\text{EPh}_3$  (E=P, As and Sb). Formation of  $\text{FeCp(CO)(EPh}_3\text{)(SCOR)}$ " *M.Sc. Thesis* (Yarmouk Univ.) 1988.
35. El-Hinnawi, M. A.; **Al-Ajlouni, A. M.**; AbuNasser, J.; Powell, A.K.; Vahrenkamp, H. "Synthesis and Characterization of Cyclopentadienyl-dicarbonyliron S-Bonded Monothio-carboxylates,  $\text{FeCp(CO)}_2\text{SCOR}$ . Crystal Structure of  $\text{FeCp(CO)}_2\text{[SCO(2-NO}_2\text{C}_6\text{H}_4\text{)]}$ " *J. Organomet. Chem.* 1989, 359, 79-86.
36. El-Hinnawi, M. A.; **Al-Ajlouni, A. M.** "Reaction of Organoiron Sulfanes,  $(\mu\text{-S}_x)\text{-[FeCp(CO)}_2\text{)]}_2$  and the Synthesis of Cyclopentadienyl-dicarbonyliron S-Bonded Monothiocarboxylates,  $\text{FeCp(CO)}_2\text{(SCOR)}$ " *J. Organomet. Chem.* 1987, 332, 321-329

### **Presentations and Conferences**

I have participated and organized more than 40 national and international conferences, over the past 15 years, of these:

- Alexander Von Humboldt Conferences (as organizer and participant), in Jordan 2009 and 2011, in Algeria 2010, in Tunis 2011, in Morocco 2012, in Egypt 2012, in Tunis 2013.
- American Chemical Society (ACS) Meetings (2004, 2005, 2007, 2010, 2011, 2013)
- Scientific Research Strategies in the Islamic World, The Islamic University of Malaysia, Kuala Lumpur, July 6-8, 2010.
- The 14<sup>th</sup> International Physical Chemistry Conference, Bucharest, Romania, June 2-5, 2010
- N-Ligand in Coordination Chemistry, Metal-Organic Chemistry, Biorganic Chemistry & Homogeneous Catalysis, Garmisch-Partenkirchen (Germany) August 24 - 28, 2008.
- International Symposium on Nanotechnology in Environmental Protection and Pollution, June 18 - 21, 2006; Hong Kong, P.R. China  
"Environmentally Safe Oxidants for Degradation of Organic Pollutants"
- International Conference "From molecules towards materials", September 3-10, 2005, Nizhny Novgorod, Russia  
"The Base Effect on the Catalytic Activation of Methyltrioxorhenium(VII)"
- XI International Conference in Solution Chemistry, Plyos- Russia, June 28– July 2, 2004. "Inclusion of the Catalyst Methylrheniumtrioxide in  $\beta$ -Cyclodextrin"
- 3<sup>th</sup> Aagen Analytical Chemistry, Lesvos- Greece, Sept. 28 – Oct 2, 2002.  
"Spectrophotometric Methods for Studying the Oxidation of Testosterone by Peroxynitrite"



- 4<sup>th</sup> World Congress on Oxidation Catalysis, September 16-21, 2001, Potsdam – Germany. "Imidazoles Catalyze Oxidations with Organic Peroxides"
- The 3rd International Conference on Pure and Applied Chemistry, April 2002, Yarmouk University, Irbid-Jordan. "Oxidation of Organic Sulfide with Hydrogen Peroxide as Catalyzed by Polyoxometalats"
- American Chemical Society Regional Meeting/NORM-2000, June 15-17, Idaho Falls, Idaho;  
"Linkage Isomerization by Two-Dimensional P-31 NMR".
- Invited speakers at; Distinguished School Students Conference on Chemistry and the Environment, May 2000, Irbid-Jordan.  
"Food and Air Pollution and its Effect on Human Health"
- The 2nd International Conference on Pure and Applied Chemistry, April 2000, Yarmouk University, Irbid-Jordan.  
"Catalytic and Noncatalytic Oxidations with Peroxynitrite"
- The Environmental Meeting of West Asia Countries, April 1999, Irbid-Jordan; "Environmentally Safe Oxidizing Agents"
- Invited speaker at Kansas State University/Manhattan-Kansas in 1998  
"Epoxidation of Alkenes by H<sub>2</sub>O<sub>2</sub> catalyzed by MTO".
- Invited speaker at Kent State University/Kent-Ohio in 1996  
"Methylrhenium Trioxide; an efficient catalyst for H<sub>2</sub>O<sub>2</sub> activation", and in 1997, "Peroxynitrite reduction and decomposition"
- American Chemical Society National Meeting 209, April 1995, Anaheim, CA:  
"Catalytic Epoxidation of Olefins by H<sub>2</sub>O<sub>2</sub> /Methyltrioxorhenium"
- American Chemical Society National Meeting 207, March 1994, San Diego,  
"Oxidation of phenols and glycols by CrO<sup>2+</sup> "

### **Workshops, Training and Community Service**

- **Developing and Implementing of Quality Assurance in Higher Education** Workshop (Amman 7-10/1/2008).  
Organized by the British Council/Amman and Jordan University of Science and Technology and carried out by Professor Bahram Bekhradnia, Director, Higher Education Policy Institute and other experts in Higher Education Development from UK.
- **Train JUST faculty members, staff and students** on the above topics, 2000 - 2005.  
Twelve hours (in two weeks) of training were carried out for each workshop. This includes preparing manuals and delivering presentations and materials to the participants.
- Conducting four workshops as a facilitator for JUST students and staff on **leadership, communication and presentation skills**. Sept. 2001 – June 2003.
- Participated in the establishment of the **Civil Society Development Centre (CSDC)** at JUST. 2002/2003. Funded by the Ministry of External Affairs/UK.
- **Need-Assessment Training (NAT)**, JUST/ Jordan, Feb. 2-6, 2002
- **"Toward Democratic Thinking Project"** Oct. 1999 - Oct. 2000.  
A MEDA project was carried out at JUST and sponsored by the Europe Union to prepare trainers on very important awareness issues in Jordan society. The following workshops were conducted:  
-**Debating**, (Facilitator: Ms. Kate Keneen)

- Management of Change**, including culture understanding, leadership, communication problem solving, creative thinking and build a teamwork (Facilitator: Mr. Martin House)
- Gender Equality** (Facilitator: Dr. Miranda Hughes)
- Religious Diversity** (Facilitator: Mrs. Myfunway Franks)
- **Drug Free Working and Learning Environment** Nov. 1991, Iowa State University, Ames-Iowa (USA).

### **Memberships and Activities**

- Member of the pre-selection committee for postgraduate scholarships of the Academic Exchange Service (DAAD)/ Germany. 2007-2013
- Secretary General of the "Jordanian Club of the Alexander von Humboldt Fellows (HCJ)". 2007-present
- Vice President and Treasurer of the Jordanian Chemical Society, 2010-2014
- Vice President of the Visiting Scholars and International Student Association, Kent State University, 1996 and 1998.
- Vice President and Secretary of the Jordan Students Association, Iowa State University, 1992 and 1994.
- American Chemical Society, member since January 1992.
- Inorganic Division-ACS, member since 1992.
- Jordanian Environmental Society, member since 1999.
- Jordanian Chemical Society, member since 2001.
- Member in the Scientific and Organizing Committees for many national and international scientific conferences.