

# ***CURRICULUM VITAE (C.V)***

## **PERSONAL DATA:**

**Full name:** Mansour Hussein Almatarneh  
**Date of birth:** February 1<sup>st</sup> -1972  
**Place of birth:** Aiy  
**Marital Status:** Married / Two kids  
**Citizenship:** Jordanian



## **Affiliation and official address:**

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## **EDUCATION (degrees, universities, dates)**

2007 Ph.D in Physical Chemistry / Theoretical and Computational Chemistry, Memorial University, Canada.  
**Thesis title:** *Computational Study of the Deamination Reaction of Cytosine.*  
Under the supervision of Prof. Raymond Poirier.  
2000 M.Sc in Chemistry, Mu'tah University, Jordan.  
1994 BSc. in Chemistry, Mu'tah University, Jordan.  
1990 High School Certificate, Jordan.

## **CAREER/EMPLOYMENT (dates, positions and employers)**

- 2014–present **Assistant Professor**, Department of Chemistry, **University of Jordan**, Amman, **Jordan** [Feb 2014 – Present].
- 2015–2015 **Visiting Assistant Professor**, Department of Biochemistry, **Tabuk University**, Tabuk, **Saudi Arabia**. [Aug. 2015 – Dec. 2015].
- 2013–2014 **Assistant Professor**, General Studies Department, **Jubail University College**, Jubail, **Saudi Arabia** [Feb 2013 – Jan 2014].
- 2011–2012 **Visiting Assistant Professor**, Department of Chemistry, **Memorial University-Grenfell Campus**, Corner Brook, Newfoundland, **Canada**.
- 2010–2011 **Lecturer**, Department of Physical Sciences, **Thompson Rivers University**, Kamloops, British Columbia, **Canada**.
- 2009–2015 **Visiting Scientist**, Prof. Raymond Poirier, Department of Chemistry, **Memorial University**, St. John's, NL, **Canada**. [June 1 – Sept 1 /2010 , June 3 – Aug 19 /2009, Aug 1-31/2013, June 9 – Sep 1 /2014, June 8/2015 – Aug 31 /2015 , Jan.5 – Sept 15 /2016].
- 2008–2010 **Assistant Professor**, Department of Chemistry, **Al-Hussein Bin Talal University**, Ma'an, **Jordan** [Sep 2008 – Aug 2010 and Summer 2011].
- 2007–2008 **Post-Doctoral Fellow**, **Department of Biochemistry**, Memorial University. Research: Molecular dynamics (MD) simulations of protein associated with psoriasis. Dr. Valerie Booth's lab, **Canada Research Chair in Proteomics**.
- 2003–2007 **Teaching Assistant (T.A.)**, Chemistry Department, Memorial University, St. John's, NL, **Canada**.
- 2001–2003 **Chemistry Teacher** in High School, Ministry of Education, Riyadh, **Saudi Arabia**.
- 1997–1998 **Teaching Assistant (T.A.)**, Chemistry Department, Mu'tah University, Karak, **Jordan**.
- 1994–2001 **Chemistry Teacher** in high School, Ministry of Education, Jordan.

## **HONOURS, AWARDS, FELLOWSHIPS**

- 2007-2008 Post-Doctoral Fellowship, funded by NewLab Clinical Research, Memorial University, **Department of Biochemistry**, St. John's, Newfoundland, Canada
- 2003-2007 School of Graduate Studies Fellowship (Ph.D), Memorial University of Newfoundland, Canada
- 2004 Student award for my poster in 87<sup>th</sup> CSC conference, London (Ontario), Canada
- 1997-1998 Teaching Assistant Scholarship, Mu'tah University, Chemistry Department, Jordan
- 1991-1994 Undergraduate Fellowship, Ministry of Higher Education, Jordan

## TEACHING ACTIVITIES

Courses Taught at:

- **Memorial University (MUN) and Thompson Rivers University (TRU) - Canada**
- **University of Jordan (JU) and Al-Hussein Bin Talal University (HU) - Jordan**
- **Jubail University College (JUC), Tabuk University (TU) - Saudi Arabia**

1. General Chemistry I (SCI-154) (CHEM1200), (CHEM 101)
2. General Chemistry II (CHEM1001), (CHEM 102)
3. Introductory Chemistry (CHEM099)
4. General Chemistry for Health Science (CHEM 105)
5. General Chemistry Lab I (CHEM 103) , (CHEM1050), (CHEM 109)
6. General Chemistry Lab II (CHEM 104), (CHEM1051)
7. Introductory Chemistry Lap I (CHEM1010)
8. Introductory Chemistry Lap II (CHEM1011)
9. Fundamentals of Chemistry (CHEM 1510 )
10. Principles of Chemistry (CHEM 1520)
11. Physical Science (SCI-054)
12. Introductory Inorganic Chemistry (CHEM2210)
13. Atmospheric Chemistry (ENVS 3261)
14. Atmospheric Environmental Chemistry (CHEM 302)
15. Biochemistry (CHEM 101) (BIOC-200)
16. Protein and Amino Acids (BIOC-301)
17. Biotechnology (BIOC-408)
18. Senior Science Seminar (SC4000)
19. Principles of Physical Chemistry (CHEM 306)
20. Physical Chemistry I (CHEM 341), (CHEM 241)
21. Physical Chemistry II (CHEM 342), (CHEM 341)
22. Physical Chemistry III (CHEM 441)
23. Physical Chemistry Lap (CHEM 342 )
24. Physical Chemistry Lap I (CHEM 345 )
25. Physical Chemistry Lap II (CHEM 346 )
26. Mathematics for Chemistry Students (CHEM 206)
27. Special Topics in Physical Chemistry (Quantum Chemistry) (CHEM 443)

### **Graduate Courses:**

28. Quantum Chemistry (CHEM 741) – **Master**
29. Application in Quantum Chemistry (CHEM 941) – **Ph.D**

## SPECIALIZATION

### **Main Field:**

*Physical Chemistry // Computational and Theoretical Chemistry*  
*Biochemistry // Kinetics and Thermodynamics*

### **Previous research:**

- Measurement of thermodynamic functions and acid dissociation constants ( $K_a$ ) of benzoic acid and its derivatives, in water-organic solvent mixtures ranged in temperature from 5-50 C°, using a conductimetric method.
- Preparation of a polyurethane polymer by reacting Azo compounds (such as: p-nitro azo phenol) with Methylene diphenyl 4, 4'-diisocyanate (MDI).

### **Current research interest:**

- Computational study of the reaction mechanisms and factors that influence selectivity in chemical reactions, such as:
  - Decomposition reaction of formamidine (in gas phase and in solution), ethylamine, and acetamide.
  - Deamination reaction of cytosine, guanine, adenine, glutamine, asparagine, melamine, ammeline, ammelide, and glutamic acid.
  - Alkylation reaction in DNA: Methyl or ethyl groups will transfer to reactive sites on the bases and to phosphates in the DNA backbone.
- Studying different mutagens, the substances that cause DNA mutations.
- DNA repair mechanisms by ab initio and MD calculations.
- Geometry Optimization: Transition state optimization
- Molecular dynamics simulations of protein folding.
- Molecular dynamics simulations of protein associated with psoriasis
- Investigations for systems related to **DNA damage and repair systems**.
- Study the effect of different catalysts on the deamination reaction of cytosine and other nucleic acid bases.
- Study the effect of solvent model (like PCM) on the reaction mechanisms.
- **Environmental Chemistry:**
  - Mechanistic study of Ozonolysis of Phenanthrene
  - Mechanistic study of Ozonolysis of monoterpenes
  - Mechanistic study of Ozonolysis of sabinene
- Study the reaction mechanisms of **Criegee intermediate**

## PUBLICATIONS

Number of papers cited the following published articles :: **110 (from Google-Scholar)**

[http://scholar.google.com/citations?user=8N\\_Pe6IAAAAJ&hl=en](http://scholar.google.com/citations?user=8N_Pe6IAAAAJ&hl=en)

1. **Mansour H. Almatarneh**, Abd Al-Aziz A. Abu-Saleh, Kabir M. Uddin; Raymond A. Poirier. Submitted to  
“Mechanistic Study of the Deamination Reaction of Melamine: A Computational Study”
2. Al-Tayyem, Muna; **Almatarneh, M. H.** *Journal of Chemistry and Applied Biochemistry*, 2016, 3(1), 119. (**Open Science Pub**)  
“A DFT computational study of the antioxidant activities exhibited by 3-aryl-4-hydroxycoumarin derivatives”
3. Ehab Alshamaileh, Mazen Al-Sulaibi, Ahmad Al-Khawaldeh, **Mansour H. Almatarneh**, Dina El-Sabawi, Aiman Al-Rawajfeh, *World Journal of Science, Technology and Sustainable Development*, 2016, 13(2) . (**Emerald Group Pub.**)  
"Current status of nanotechnology in Jordan"
4. Taher S. Ababneh, Taghreed M. A. Jazzazi, Tareq M. A. AlShboul, Hamdan S. Al-Ebaisat, **Mansour H. Almatarneh**, Albara I. Alrawashdeh. *American Chemical Science Journal*, 2016, 12, 1-9. (**SCIENCEDOMAIN**)  
“Synthesis, Characterization and Theoretical Study of New Schiff Bases Derived from 1,8Diaminonaphthalene and Their Ni(II) Complexes”
5. **Mansour H. Almatarneh**, lina Barhoumi, Ban Al-Tayyem, Abd Al-Aziz A. Abu-Saleh, Marwa M. AL-A'qarbeh, Faten Abuorabi, Ehab AlShamaileh, Mohammednoor Altarawneh, Ali Marashdeh. *Computational and Theoretical Chemistry*, 2016, 1075, 9-17. (**ELSEVIER Journal**)  
"Computational Study for the Second-Stage Cracking of the Pyrolysis of Ethylamine: Decomposition of Methanimine, Ethenamine, and Ethanamine"
6. Altarawneh, M.; **Almatarneh, M.H.**; Marashdeh, A. *Combustion and Flame*, 2016, 163, 532–539. (**ELSEVIER Journal**)  
"Decomposition of Ethylamine through Bimolecular Reactions"
7. Halim, M.A.; **Almatarneh, M.H.**; Poirier, R.A. *Journal of Physical Chemistry B*, 2014, 118(9), 2316–2330. (**ACS Journal**)  
“A Mechanistic Study of the Deamidation Reaction of Glutamine: A Computational Approach”

8. **Almatarneh, M.H.**; Altarawneh, M. ; Poirier, A.; Saraireh, A. *Journal of Computational Science*, **2014**, 5, 568-575. (**ELSEVIER Journal**)  
 “High level ab initio, DFT, and RRKM calculations for the Unimolecular Decomposition Reaction of Ethylamine”.
9. Alrawashdeh, A.; **Almatarneh, M.H.**; Poirier, R.A. *Canadian Journal of Chemistry*, **2013**, 91(7), 518-526. (**NRC Research Press**)  
 “Computational Study on the Deamination Reaction of Adenine with OH<sup>-</sup>/nH<sub>2</sub>O (n=0, 1, 2, 3) and 3H<sub>2</sub>O “
10. Altarawneh, M.; Al-Muhtaseb, A.H.; **Almatarneh, M. H.**; Assaf, N. W.; Altarawneh, K. K., *Journal of Physical Chemistry A*, **2011**, 115 (48), 14092–14099. (**ACS Journal**)  
 ”Theoretical Investigation into Competing Unimolecular Reactions Encountered in the Pyrolysis of Acetamide”.
11. Al-Muhtaseb, A.H.; Altarawneh, M.; **Almatarneh, M. H.**; Poirier, Raymond A. *Journal of Computational Chemistry*, **2011**, 32(12), 2708-2715. (**Wiley Journal**)  
 “Theoretical Study on the Unimolecular Decomposition of Theophenol”
12. Uddin, K.M.; **Almatarneh, M.H.**; Shaw, D.M.; Poirier, R.A. *Journal of Physical Chemistry A* **2011**, 115, 2065-2076. (**ACS Journal**)  
 ” Mechanistic Study of the Deamination Reaction of Guanine: A Computational Study”
13. Eid Abd Al-Razaq; Nabeel Buttrus; Wedad Al-Kattan; Abdel Aziz Jbarah; **Mansour Almatarneh.**, *Journal of Sulfur Chemistry*, 32 (2), 1-11, **2011**. (**Frances and Taylor**)  
 ”Reactions of Pd<sup>2+</sup> and Pt<sup>2+</sup> with Pyrrolidinedithio Carbamate and Cystine Ligands: Synthesis and DFT Calculations”
14. **Almatarneh, M.H.**; Flinn, C.G.; Poirier, R.A. *Journal of Chemical Information and Modeling*, 48, 831-843, **2008**. (**ACS Journal**)  
 “Mechanisms for the Deamination Reaction of Cytosine with H<sub>2</sub>O/OH<sup>-</sup> and 2H<sub>2</sub>O/OH<sup>-</sup>: A Computational Study”
15. **Almatarneh, M.H.**, Ph.D. Dissertation, Memorial University, St. John’s, Newfoundland, Canada, **2007**.  
 “Computational Study of the Deamination Reaction of Cytosine”
16. **Almatarneh, M.H.**; Flinn, C.G.; Poirier, R.A.; Sokalski, W.A. *Journal of Physical Chemistry A*, 110 (26), 8227-8234, **2006**. (**ACS Journal**)  
 “Computational Study of the Deamination Reaction of Cytosine with H<sub>2</sub>O and OH<sup>-</sup>”
17. **Almatarneh, M.H.**; Flinn, C.G.; Poirier, R.A., *Canadian Journal of Chemistry* **2005**, 83,

2082-2090. (NRC Research Press)

“Ab initio Study of the Decomposition of Formamidine (in the gas phase and in solution)”

### **SUPERVISION:**

#### **Graduate Students / University of Jordan:**

1. **Abdelaziz Abu Saleh**, Master student, Department of Chemistry, “A Computational Study of the Deamination Reaction of Melamine”. Sep. 2014 - Dec. 2015.
2. **Zahraa Matar Ahmad**, Master student, Department of Chemistry. “A Quantum Mechanical Investigation of the Ozonolysis of Phenanthrene”, Jan. 2015 - Present.
3. **Ismail Elian**, Master student, Department of Chemistry, “Computational Study of the Ozonolysis of Sabinene Reaction Mechanisms”. Jan. 2016 - Present.

#### **B.Sc. (Honour Theses) / TRU and MUN – Canada (Co-Supervisor):**

4. Elizabeth M. Andrucson, “Review of Lantibiotics Research and Development of Computer Program for Lantibiotic Analysis”. Chemistry Department, Thompson Rivers University, Winter 2011.
5. Elizabeth M. Andrucson, “LC/MS of Potentially Anticarcinogenic Flavonoids”. Chemistry Department, Thompson Rivers University, Winter 2011.
6. Jonathan Grandy (student #200813764) in Environmental Chemistry. Two semester research projects on the "Investigation of metal interactions from aqueous solution by chitin and chitosan like materials by use of FTIR spectroscopy". Memorial University - Grenfell Campus, Sept. 05 2011 to April 02 2012.

### **MEMBER OF THE EDITORIAL BOARD FOR THE FOLLOWING JOURNALS:**

- *Canadian Chemical Transactions*
- *Journal of Chemistry & Applied Biochemistry*
- **Guest Editor for Special Issue** in Journal of Chemistry: (2015) "Application of Theoretical Chemistry in Combustion Reactions, Atmospheric and Environmental Chemistry" [ <http://www.hindawi.com/journals/jchem/si/970643/cfp/> ]

## **PAPER PEER REVIEWED**

- 1) *Nature Communications*
- 2) *Journal of Computational Chemistry (JCC)*
- 3) *Journal of Physical Chemistry (JPC)*
- 4) *Canadian Journal of Chemistry (CJC)*
- 5) *Canadian Chemical Transactions (CCT)*
- 6) *Journal of Molecular Modeling (JMM)*
- 7) *Medicinal Chemistry Communications (RSC)*
- 8) *Computational Chemistry (CC)*
- 9) *Journal of Chemistry & Applied Biochemistry (JCAB)*
- 10) *Journal of Chemistry*
- 11) *Jordan Journal of Chemistry (JJC)*

## **RESEARCH FUNDING**

- University of Jordan, Research Fund. 2015/2017 (~20,400\$)
- University of Jordan, Support for my Master Student. 2015/2016 (~2,115\$)
- University of Jordan, Support for my Master Student. 2015/2016 (~1340\$)
- Memorial University - Grenfell Campus, Travel Fund 2012 (1,200\$)
- Memorial University, St. John's, Research Funds. 2010 (5,000\$)
- Post-Doctoral Fellow, Funded by NewLab Life Sciences Inc. 2007/2008 (35,000\$)

## **CONFERENCES**

1. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A., *Ab initio* study of the decomposition reaction of formamidine in the gas phase, 87<sup>th</sup> Canadian Chemistry Conference and the Exhibition organized by the Canadian Society for Chemistry (CSC), presented in London/Ontario, Canada, May 29 - June 1, **2004, Poster.**
2. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A., *Ab initio* study of the decomposition reaction of Formamidine in the gas phase and in solution, Symposium on Molecular Informatics, Modeling and Simulation, Memorial University, St. John's, Canada, June 23-26, **2004, Poster and Oral presentation.**
3. Summer School on Computation, Simulation, and Theory in Chemistry, Chemical Biology, and Materials Chemistry, June 11-18, **2005**, Park City, Utah state, USA.
4. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A.; Sokalski, W. A., Computational study of the deamination reaction of Cytosine with H<sub>2</sub>O, Atlantic Theoretical Chemistry Symposium (ATCS), Mount Allison University, Sackville, New Brunswick, Canada, August 12-14, **2005, Oral presentation.**
5. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A.; Sokalski, W. A., Computational study of



- the deamination reaction of Cytosine with  $\text{H}_2\text{O}$  and  $\text{OH}^-$ , 89<sup>th</sup> Canadian Chemistry-Conference and Exhibition organized by the Canadian Society for Chemistry (CSC), presented in Halifax, Canada, May 27- June 1, **2006, Oral presentation.**
6. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A., Mechanisms for the deamination reaction of Cytosine with  $\text{OH}^-/(\text{H}_2\text{O})_n$  ( $n=1,2$ ), 14<sup>th</sup> Annual Chemistry Colloquium Contest, Chemistry department, Memorial University, St. John's, Canada, February 8, **2007, Oral presentation.**
  7. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A., Mechanisms for the deamination reaction of Cytosine with  $\text{H}_2\text{O}/\text{OH}^-$  and  $2\text{H}_2\text{O}/\text{OH}^-$ : A Computational study, 90<sup>th</sup> Canadian Chemistry Conference and Exhibition organized by the Canadian Society for Chemistry (CSC), presented in Winnipeg, Canada, May 26 – May 31, **2007, Oral presentation.**
  8. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A., Mechanisms for the deamination reaction of Cytosine with  $\text{H}_2\text{O}/\text{OH}^-$  and  $2\text{H}_2\text{O}/\text{OH}^-$ : A Computational study, Atlantic Theoretical Chemistry Symposium (ATCS), Memorial University, presented in St. John's, Newfoundland, Canada, August 2-4, **2007, Oral presentation.**
  9. **Almatarneh, M. H.**; Flinn, C. G.; Poirier, R. A., Mechanisms for the deamination reaction of Cytosine with  $\text{H}_2\text{O}/\text{OH}^-$  and  $2\text{H}_2\text{O}/\text{OH}^-$ : A Computational study, 16<sup>th</sup> Canadian Symposium on Theoretical Chemistry (CSTC), Memorial University, presented in St. John's, Newfoundland, Canada, August 4-9, **2007, Poster.**
  10. **Almatarneh, M. H.**, 91<sup>th</sup> Canadian Chemistry Conference and Exhibition organized by the Canadian Society for Chemistry (CSC), Edmonton-Alberta, Canada, May 24 – May 28, **2008.**
  11. **Almatarneh, M. H.**; Booth, V. “Molecular Dynamics Simulations of the HLA-Cw6- $\beta$ 2m-KIR2DS1 Complex Associated with the Psoriasis Disease”, The Seventh Canadian Computational Chemistry Conference (CCCC7), Dalhousie University, Halifax, Nova Scotia, Canada, July 20 – 24, **2009, Poster.**
  12. **Almatarneh, M. H.** “Molecular Dynamics Simulations of the HLA-Cw3- $\beta$ 2m-KIR2DL2 Complex”, 10<sup>th</sup> Jordanian conference on Chemistry( JCC-10), Jordan University of Science and Technology, Irbid, Jordan, May 13, **2010, to be attended, Oral presentation.**
  13. Nelson Chemistry Education Workshop: "IYC2011: Chemistry - Our Life, our Future". Nelson Education Ltd. February 22-23, 2011, Toronto, Canada. **Invited Participant.**
  14. **Almatarneh, M. H.**; Booth, V. “Molecular Dynamics Simulations of Protein Associated with the Psoriasis Disease”, Frontiers in Biomolecular Simulation - Modeling Processes on a Large Scale, in January 21 – 25, **2012.** Physikzentrum, Bad Honnef, Germany. **Poster/Oral Presentation.**
  15. **Almatarneh, M. H.**, 14<sup>th</sup> Jordanian conference on Chemistry (JCC), Al al-Bayet University, Mafrq, Jordan, April 8<sup>th</sup>, 2015. “Computational Study of the Deamination Reaction of Nucleic Bases in DNA”. **Oral presentation.**
  16. **Almatarneh, M. H.**, “Computational Study of the Deamination Reaction of Nucleic Acid Bases in DNA”. 99<sup>th</sup> Canadian Chemistry Conference and Exhibition organized by the Canadian Society for Chemistry (CSC), Halifax, Canada, June 4-9, **2016. Oral presentation.**

## CONFERENCES BY MY STUDENTS/COLLABORATORS (presenter underlined)

17. Almatarneh, M. H.; Abu-Saleh, A. 14<sup>th</sup> Jordanian conference on Chemistry (JCC), Al al-Bayet University, Mafraq, Jordan, April 8<sup>th</sup>, 2015. "A Computational Study of the Deamination Reaction of Melamine". **Poster presentation.**
18. Alrawashdeh, A. I.; Almatarneh, M. H.; Poirier, R. A., "Computational Study on the Deamination Reaction of Adenine with OH<sup>-</sup>/nH<sub>2</sub>O (n=0, 1, 2, 3) and 3H<sub>2</sub>O" 96<sup>th</sup> Canadian Chemistry Conference and Exhibition organized by the Canadian Society for Chemistry (CSC), Montreal, Quebec, Canada, May 26–30, **2013. Poster Presentation.**
19. KabirUddin, M.; Almatarneh, M. H.; Shaw, D. M.; Poirier, R. A." Computational Study of the Deamination Reaction of Guanine with H<sub>2</sub>O and OH<sup>-</sup>. Atlantic Theoretical Chemistry Symposium - ATCS 2010, Saint Mary's University, Halifax, Nova Scotia, Canada, August 13-15, **2010, Oral Presentation.**
20. Halim, M. A., Almatarneh, M. H.; Poirier, R. A. "Theoretical Study of the Deamination Reaction of Glutamine". Atlantic Theoretical Chemistry Symposium - ATCS 2010, Saint Mary's University, Halifax, Nova Scotia, Canada, August 13-15, **2010, Oral presentation.**

## INVITED SPEAKER

- 1) Tabuk University, Faculty of Science, Tabuk, Saudi Arabia "Using Bloom's Taxonomy to Write Effective Learning Objectives". Dec. 16<sup>th</sup>, 2015.
- 2) Tabuk University, Faculty of Science, Tabuk, Saudi Arabia "Effective Use of PowerPoint for Teaching and Research". Nov. 11<sup>th</sup>, 2015.
- 3) Jordan University, Chemistry Department, Jordan. "*Effective Use of PowerPoint for Teaching and Research*". Dec 9<sup>th</sup>, 2014.
- 4) Memorial University-Grenfell Campus, Department of Chemistry, Canada. "*Computational Study of the Deamination Reaction Mechanisms of Nucleic Acid Bases*". April 11<sup>th</sup>, 2012.
- 5) Thompson Rivers University, Department of Chemistry, Canada. "*Computational Study of the Deamination Reaction of Cytosine*". April 5<sup>th</sup>, 2011.
- 6) Al-Hussein Bin Talal University, Chemistry Department, Jordan. "*Computational Study of the Reaction Mechanisms of DNA Damage Systems and Molecular Dynamics Simulations of Protein Folding*". May 12<sup>th</sup>, 2009.
- 7) Jordan University, Chemistry Department, Jordan. "*Computational Study of the Reaction Mechanisms of DNA Damage Systems*". April 4<sup>th</sup>, 2009.

## MEMBERSHIP OF PROFESSIONAL SOCIETIES

- Member of Canadian Society for Chemistry (CSC).
- Member of American Chemical Society (ACS).
- Member of Jordanian Chemical Society, (JCC).

- Member of Amnesty International, group 60.
- Member of Let's Talk Science, A non-profit organization, Volunteer work.

### **COMPUTATION AND RELATED SKILLS**

- ◆ Operating Systems: UNIX/LINUX, Windows, Macintosh (Mac OS 10.x).
- ◆ Experience in high-performance computing (HPC) environment.
- ◆ Corel WordPerfect and Microsoft Office (word processing, spreadsheet, presentation).
- ◆ Molecular Viewers (LabView): Jmol, Molden, VMD, Molmol, Swiss-PdbViewer (SPDBV), GaussView, ..... and many others.
- ◆ Chemical Drawing Programs: ChemWindow, and ChemDraw, ChemCraft.
- ◆ Data Analysis: SigmaPlot, Origin
- ◆ Programming Language: FORTRAN 90.
- ◆ Scripting Language: Python
- ◆ Quantum Computation Packages: Gaussian, Gromacs, and MUNgauss.