



CURRICULUM VITAE

PERSONAL INFORMATION

Name: Khaldoun A. Al-Sou'od

Place and Date of Birth: Amman (Jordan), 1971

Nationality: Jordanian

Marital Status: Married, Three Children

Permanent Address: Department of Chemistry, Faculty of Science, Al al-Bayt University, P. O.
Box 130040, Mafraq, 25113, JORDAN

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EDUCATION:

1996-2000 **University of Jordan**

Ph. D. Degree in Physical Chemistry

Supervisor: Mohammad Zughul and Adnan Badwan

Rate: Very good

Thesis Title: *Mechanisms Underlying Inclusion Complex Formation*

Between Some Aromatic Derivatives and Cyclodextrins in Aqueous Solutions



- 1993-1996 **University of Jordan**
Master Degree in Inorganic Chemistry
Supervisor: Fawwaz Khalili and Mohammad Mubarak
Rate: very good
Theses Title: *Preparation and Characterization of New Oxadiazole Derivatives and Their Complexes with Some Metal Ions*
- 1989-1993 **Yarmouk University**
B. Sc. In Chemistry
Rate: Very Good

EXPERIENCE:

- 2010-NOW **Associate Professor (B)**
JORDAN, Al al-Bayt University/Chemistry Department
- 2009-2010 **Associate Professor (Sabbatical Year)**
Kingdom of Saudi Arabia, Hail University/College of Health Sciences
- 2008-2009 **Associate Professor**
JORDAN, Al al-Bayt University/Chemistry Department
- 2006-2008 **Assistant Professor (A)**
JORDAN, Al al-Bayt University/ Chemistry Department
- 2006-2007 **Part Time Lecturers/ Assistant Professor**
JORDAN, Al-Balqa'a Applied University/Faculty of Science
- 2002-2006 **Assistant Professor (B)**
JORDAN, Al al-Bayt University/ Chemistry Department



- 2003-2004 **Chairman of the Chemistry Department**
JORDAN, Al al-Bayt University/ Chemistry Department
- 2001-2002 **Full Time Lecturers**
JORDAN, Al al-Bayt University/ Chemistry Department
- 2000-2001 **Part Time Lecturers**
JORDAN, University of Jordan/ Chemistry Department
- 1993-2000 **Teaching Assistant**
JORDAN, University of Jordan/ Chemistry Department
- 1993-1993 **Lab. Technician**
JORDAN, Yarmouk University/ Chemistry Department

SELECTED PUBLICATIONS

1. **Khaldoun A. Al-Sou'od**, Fawwaz I. Khalili and Mohammad S. Mubarak “*Preparation and Characterization of New Oxadiazol Derivatives Complexes of 3,3'-Bis (1,2,4-Oxadiazol-5(4H)-One) with Some Metal Ions*” J. Soudi Chem. Soc., 4(2), 143-152 (2000).
2. **Khaldoun A. Al-Sou'od** “*Trends in the Complexation of Organic Molecules Bearing two Peripheral Benzene Rings with Aqueous β -Cyclodextrin*” Proceeding the 12th International Cyclodextrin Symposium, Montpellier (France), May 16-19 (2004).
3. **Khaldoun A. Al-Sou'od** “*Experimental and Molecular Mechanical Studies of Complexation of Some 2H- and 3H-Indole Derivatives with β -Cyclodextrins*” Proceeding the 12th International Cyclodextrin Symposium, Montpellier (France), May 16-19 (2004).
4. Musa El-barghouthi, **Khaldoun A. Al-Sou'od**, Abd-Al-Hakeem Abu-Nawas and Rajab Abu El-Halawa “*Kinetics and Mechanism of Benzoin Oxidation Using Iron (III) in the Presence of 1, 10-Phenanthroline in Acidic Medium*” Int. J. Chem. 14, 77-84 (2004).



5. **Khaldoun A. Al-Sou'od***, Basem F. Ali, Rajab Abu El-Halawa and Abd-Al-Hakeem Abu-Nawas “*Kinetics and Mechanism of Benzoin Oxidation Using Iron (III) in the Presence of Ferrozine or 2, 2'-Bipyridine in Acidic Medium*” Int. J. Chem. Kin. 37(7), 444 - 449 (2004).
6. **Khaldoun A. Al-Sou'od*** “*Molecular Mechanics Study of the Inclusion Complexes of Some 1, 2, 4-Oxadiazole Derivatives of 3,3'-Bis(1,2,4-Oxadiazol-5(4H)-One) with β -Cyclodextrin*” J. Incl. Phenom. 54, 123-127(2006).
7. Basem F. Ali, **Khaldoun A. Al-Sou'od**, Nayef Al-Ja'ar, Ahmad Nassar, Mukarram H. Zaghaf, Zaher Judeh, Rawhi Al-Far, Mahmoud Al-Refai, Mohamad Ibrahim, Kamal Mansi and K. H. Al-Obaidi “*Interconversion of Copper(II) to Copper(I): Synthesis, Characterization of Copper(II) and Copper(I) 2,2'-Biquinoline Complexes and Their Microbiological Activity*” J. Coord. Chem. 59(2), 229-242 (2006).
8. Zughul, M. B., Taha M. O., Al Omari M. M., El-Barghouthi M. I., Abdo A. A., **Al sou'od K.** and Badwan A. A. “*Combining Molecular Docking Simulations and Comparative Molecular Field Analysis to Probe Drug- β -Cyclodextrin Inclusion Complexes*”, 13th International Cyclodextrin Symposium, Torino, Italy, May 14-17, Published Abstract, (2006).
9. **Khaldoun A. Al-Sou'od*** “*Synthesis, Characterization, Thermal and Kinetic Studies of Mixed-Ligands Zn(II) and Cd(II) Diallyldithiocarbamate Complexes with 2,2'-Bipyridine or 1,10-Phenanthroline*” Proceeding the Russian International Conference on Chemical Thermodynamics, Moscow, (Russian) Jun 27-July 2 (2005).
10. Basem F. Ali, Rawhi Al-Far, Mukarram H. Zaghaf, Razan M. H.hedat, Zaher Judeh, **Khaldoun A. Al-Sou'od** and K. H. Al-Obaidi “*Crystal structure of Cis-[Rh(biq)₂Cl₂]Cl.3H₂O: Solid State Characterization and Crystal Packing Analysis*” J. Chem. Crystallogr. 36(1) 41-46 (2006).
11. Rawhi al-far, basem F. ali and **Khaldoun A. Al-Sou'od** “*Intermolecular Interactions Involved in the Crystal Structure of 2-Amino-5-Methylpyridinium Hexabromostanate(IV), (C₆H₉N₂)₂[SnBr₆]*” J. Chem. Crystallogr. 37(4) 265-273 (2007).
12. **Khaldoun A. Al-Sou'od***, Mohammad Zughul and Adnan Badwan “*Experimental and Molecular Mechanical Studies of Complexation of Some 2H- and 3H-Indole Derivatives with Aqueous β -Cyclodextrin*” J. Sol. Chem. 35(10), 1377-1388 (2006).



13. Basem F. ali, **Khaldoun A. Al-Sou'od**, Rawhi Al-Far, and Z. Judeh “(p)C-H...S,(ally)C-H(p) and p...p Intermolecular Interactions: Synthesis, Characterization and Crystal Structure of 2, 2'-Bipyridine Bis (Diallyldithiocarbamate) Zinc” Structural Chemistry, 17(4) 423-429 (2006).
14. Rawhi Al-Far, Basem F. Ali and **Khaldoun A. Al-Sou'od** “Br...HN, N...HC, Br...HC, and Br...Br Intermolecular Interactions as Supramolecular Synthesis: Synthesis and Crystal Structure of Bis(2-Amino-5-Methylpyridinium) Tetrabromomercurate(II)” J. Chem. Crystallogr, 36(8) 523-529 (2006).
15. Omar Khazali, Rajab Abu-El-Halawa, **Khaldoun A. Al-Sou'od*** “Removal of Copper (II) From Aqueous Solutions by Jordanian Pottery Materials” J. Haz. Material, 139(1) 67-71(2007).
16. **Khaldoun A. Al-Sou'od*** “Investigation of Hydrocortisone-b-Cyclodextrin Complex by Phase Solubility Method: Some Theoretical and Practical Considerations” J. Sol. Chem. 37(1), 119-133(2008).
17. **Khaldoun A. Al-Sou'od***, Basem F. Ali and Mahmoud Al-Refai “Kinetic and Thermal Studies of Mixed Ligands Zn(II) and Cd(II) Diallyldithiocarbamate Complexes with 2, 2'-Bipyridine and 1, 10-Phenanthroline” J. Asian Chem. 21(2) (2009).
18. Ameer Ghuzlaan, M. Al-Omari and **Khaldoun A. Al-Sou'od *** “Prednisone/Cyclodextrin Inclusion Complexation: Phase Solubility, Thermodynamic, Physicochemical and Computational Analysis” J. Sol. Chem. 38: 83-94 (2009).
19. Rana Obaidat, Nawzat Al-Jbour, **Khaldoun Al-Sou'od**, Kamal Sweidan, Mayyas Al-Remawi and Adnan Badwan “Some Physico-Chemical Properties of Low Molecular Weight Chitosans and its Relationship to Conformation in Aqueous Solution”, J. Sol. Chem. 39(4): 575-588 (2010).
20. Amjad M. Qandil, Aiman A. Obaidat, Muaadh A. Mohammed Ali, Bashar M. Al-Taani, Bassam M. Tashtoush, Nawzat D. Al-Jbour, Mayyas M. Al Remawi, **Khaldoun A. Al-Sou'od**, and Adnan A. Badwan “Investigation of the Interactions in Complexes of Low Molecular Weight Chitosan with Ibuprofen” J. Sol. Chem. 38(6): 695-712 (2009).



21. **Khaldoun Al-Sou'od***, Mohammed M. K. Saadelnour, Nawzat Al-jbour, Mayyas Al-Remawi, Adnan Badwan "*Preparation and Characterization of Surface Active N-Butylated Low Molecular Weight Chitosan*", Submitted to Carbohydrate Research (2010).
22. Athamneh N , Tashtoush BM, Qandil AM, Al-Tanni BM, Obaidat AA, Al-Jbour ND, Qinna NA, **Al-Sou'od K**, Al-Remawi Mc, and Badwan AA "*A New Controlled Release Liquid Delivery System Based on Diclofenac Potassium and Low Molecular Weight Chitosan Complex Solubilized in Polysorbates*" accepted in J. Sol. Chem. (2010).
23. Alaa' A.S. Al-Omari, Mahmoud M. Al Omari, **Khaldoun A. Al-Sou'od*** "*Effect of Cyclodextrins on the Solubility and Stability of Candesartan Cilexetil in Solution and Solid State*" J. Pharm. Biomed. Anal. InPress (2010).
24. Gaith Qudah, Mahmoud Al-Omari, Rajab Abu-El-Halawa and **Khaldoun A. Al-Sou'od*** "*Host-Guest Interactions of Indapamide with Cyclodextrins : Experimental and Molecular Modeling studies*" submitted to Thermodynamic Study" (2010).
25. Amani Elsayed, Mayyas Al-Remawi, Nidal Qinna, Asim Farouk, and **Khaldoun A. Al-Sou'od** Adnan Badwan "*Chitosan-Sodium Lauryl Sulfate Nanoparticles as a Carrier System for the Delivery of Oral Insulin*" to be submitted to AAPS journal (2010).
26. **Khaldoun A. Al-Sou'od** "*The Interaction between Low Molecular Weight Chitosan and Some Types of Drugs and Insulin*" submitted to Asian J. Chem. (2010).
27. **Khaldoun Al-Sou'od***, Mohammed M. K. Saadelnour, Nawzat Al-jbour, Mayyas Al-Remawi, Adnan Badwan "*Surface Activity of Low Molecular Weight Chitosan Derivatives*" to be submitted (2010)

* **Corresponding author.**

AREA OF RESEARCH INTEREST

1. Molecular Modeling of Molecular Complexes and Polymers.
2. Controlled-Release Drug Delivery Systems.
3. Kinetics and Mechanism of Oxidation of Organic Compounds.



4. Adsorption of Organic Compounds and Heavy Metals on the Natural and Commercial Adsorbents.
5. Crystal Structure of Molecular Complexes.

SCIENTIFIC AWARDS

1. Scholarships During My Studying in the Graduated Level, University of Jordan (1993-2000).
2. Participated in Faculty For Factory Program (FFF) “*Chitin and its Derivatives as Carrier For Drug in Controlled Release Systems*” (2007).
3. Participated in Faculty For Factory Program (FFF) “*Molecular Modeling and Simulation of Chitosan Interaction with Small Molecules and Proteins of Pharmaceutical Interest*” (2008).
4. Participated in Faculty For Factory Program (FFF) “*Oral Delivery of Peptides and Proteins by Chitosan Derivatives: Simulation Study*” (2010).

SUPERVISING MASTER STUDENTS

1. The Adsorption Capacity of Modified Pottery Materials for Removing the Heavy Metals from Their Aquatic Solution (2005-2006).
2. Adsorption of Phenols and Methylene Blue from Industrial Wastewater Using Modified Pottery: Kinetic, Thermodynamic and Isotherm Studies (2005-2006).
3. Inclusion Compounds between α -, β -, γ - and HP- β - Cyclodextrin with Betamethasone: a Theoretical and Experimental Study Using Phase Solubility Diagram and Molecular Mechanics (2006-2007).
4. Study of Inclusion Complexes between Prednisone and Cyclodextrins by Spectrophotometry and Molecular Mechanics (2006-2007).



5. Host-Guest Interactions of Indapamide with Cyclodextrins: Experimental and Molecular Modeling Studies (2007-2008).
6. Effect of Cyclodextrin on the Solubility of Some Water Insoluble Drug in Aqueous Solution (2007-2008).
7. Preparation and Characterization of New Lipooligosaccharide Chitosan Derivatives (2008-2009).
8. Study the Effect of Cyclodextrins on the Solubility and Stability Enhancements of Candesartan Cilixtil in Solution and Solid State (2008-2009).
9. The Effect of Fatty Acids in New Lipooligosaccharide Chitosan Derivatives (2008-2009).

COMPUTER KNOWLEDGE

Handle and Current Programs. Little knowledge in Programming.

LANGUAGES

Arabic: Native Language

English: Good Speaking, Reading and Writing.

CONFERENCES AND WORKSHOPS

1. “Getting Started with Blackboard (e-Learning portal) for Academic Staff “ workshop, Al al-Bayt University, 2009 (Jordan).
2. “Patent Drafting” workshop, Royal Scientific Society, Nov. 23-27, 2008 (Jordan).



3. “Alignment of Future Research Trends with Biomedical Systems and Informatics Engineering from the European Perceptive (TEMPUS-BIUO TOUCH)” Yarmouk University, July, **2007** (Jordan).
4. “Interactive Mobile & Computer Aided Learning (IMCL)” Princess Sumaya University for Technology, Apr. 18-20, **2007** (Jordan).
5. “7th Jordanian Conference of Chemistry” Al al-Bayt University, Mar. 1, **2007** (Jordan).
6. “The Fourth Jordanian International Conference of Chemistry” Yarmouk University, Sept. 19-21, **2005** (Jordan).
7. “Russian International Conference on Chemical Thermodynamics” Moscow, June 27-July 2, **2005** (Russian).
8. “12TH International Cyclodextrin Symposium” Montpellier, May 16-19, **2004** (France).
9. “The Second Scientific Conference” Al al-Bayt University, May, 8, **2001** (Jordan).

COURSES TAUGHT

- Ø Chem. 101 General Chemistry (1)
- Ø Chem. 102 General Chemistry (2)
- Ø Chem. 103 General Chemistry Lab. (1)
- Ø Chem. 104 General Chemistry Lab. (2)
- Ø Chem. 105 General Chemistry for Nursing
- Ø Chem. 181 Medical Chemistry
- Ø Chem. 213 Organic Chemistry for Medical Students
- Ø Chem. 241 Physical Chemistry (1)
- Ø Chem. 341 Physical Chemistry (2)
- Ø Chem. 441 Physical Chemistry (3)
- Ø Chem. 343 Physical Chemistry Lab. (1)
- Ø Chem. 443 Physical Chemistry Lab. (2)
- Ø Chem. 342 Statistical Thermodynamics
- Ø Chem. 361 Computer Applications to Chemistry
- Ø Chem. 741 Advanced Physical Chemistry (Master)
- Ø Chem. 742 Advanced Physical Thermodynamics (Master).