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*** Personal Information:**

Full Name:	Khalid Aref Hussein Ibrahim
Date of Birth:	27/10/1964
Nationality:	Jordanian
Academic Position:	PhD in Chemical Engineering
Social Status:	Married

*** Personal Employment:**

April 2018- 2023	Full Professor - King Saud University
Feb 2015 - present	King Saud University – Unpaid leave
Feb 2014 – Feb 2015	King Saud University – Sabbatical leave
May 2012-present	Associated professor
September 2011- 2013	Head of Chemical Engineering Department. Al-Husseien Bin Talal University.
Summer 2010	DFG Research visit, University of Freiburg, Freiburg, Germany
2007 – 2012	Assistant professor, Chemical Engineering Department. Al-Husseien Bin Talal University. I have been teaching the following courses: 1. Heat and mass transfer

<p>October, 1992-2001</p>	<ol style="list-style-type: none"> 2. Fluid mechanics 3. Polymer technology 4. Fertilizers technology 5. Energy engineering 6. Corrosion engineering 7. Petroleum refining engineering 8. Chem.Eng. Thermodynamics I 9. Chem.Eng. Thermodynamics II 10. Advanced engineering math <p>Instructor and Lab. Supervisor 1- (faculty of Basic Science, Applied Science University). I taught the following courses: General Chemistry (1&2), Analytical Chemistry, Industrial Chemistry, Physical Chemistry. 2- (Faculty of Engineering), I taught the following courses: Computer Aided Design Unit Operation, Mass Transfer Lab., Particulate Technology, Chemical Engineering Reaction Lab. I supervised two graduation projects.</p>
<p>1994-1997 (During My M.Sc. Study)</p>	<p>Teaching Assistant (chemical Engineering Department, University of Jordan). I worked for the following courses: Mathematical Methods for Chemical Engineering, Mass Transfer Operation, Process Modeling by Statistical Methods.</p>
<p>October, 1990-1992</p>	<p>Production Engineer and Shift Control Arab Company for Manufacturing of Vegetable Oils (Zallom Group).</p>
<p>June, 1988-1990</p>	<p>Computer Operator Royal Jordanian Air Force Medical Facility.</p>

Note: The teaching language for all employment is English.

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*** Education:**

Period	University/School	Degree	Average
2002-2006	Helsinki University of Technology, Department of Chemical Technology Laboratory of Polymer Technology. Helsinki - Finland	PhD	Very Good

1994-1997	The University of Jordan Chemical Engineering Department. Amman - Jordan	M.Sc	Very Good
1983-1988	Jordan University of Science and Technology Chemical Engineering Department. Irbid - Jordan	B.Sc	High Good

Note: The teaching language during studying in all Universities is English.

*** Workshops:**

December 15 to 18 of December 1993	Jordanian Society for Control of Environment Pollution
May 1991 to May 1992	A Trainee Chemical Engineering Natural Resources Authority
June 13 to 13 of August	Jordan Petroleum Refinery Company Limited

***Membership:**

1. Academy of Finland.
2. Center of excellance research group in Finland.
3. Jordan Engineers Association.

*** Master Thesis:**

“Prediction of liquid densities of non-ideal mixtures using Peng-Robinson-Stryjek-Vera (PRSV) Equation of state after volume axis translations”

Thesis submitted in partial fulfillment of the requirements for the Degree of Master of Science in Chemical Engineering at University Of Jordan

*** Doctoral Program:**

1. Doctoral Thesis

a) Tittle

" STUDIES ON ATOM TRANSFER RADICAL
POLYMERIZATION OF ACRYLATES AND
STYRENES WITH CONTROLLED POLYMERIC
BLOCK STRUCTURES "

b) Objectives

- i. Catalyst synthesis
- ii. Polymer synthesis
- iii. Polymer characterization
- iv. Polymer kinetics
- v. Industrial application

c) List of publications

I Ibrahim, K., Löfgren, B., and Seppälä, J., Towards more controlled poly(n-butyl methacrylate) by atom transfer radical polymerization, *Eur. Polym. J.* **39**, 939–944 (2003).

II Ibrahim, K., Löfgren, B., and Seppälä, J., Synthesis of tertiary-butyl acrylate polymers and preparation of diblock copolymers using atom transfer radical polymerization, *Eur. Polym. J.* **39**, 2005–2010 (2003).

III Ibrahim, K., Yliheikkilä, K., Abu-Surrah, A., Löfgren, B., Lappalainen, K., Leskelä, M., Repo, T., and Seppälä, J., Polymerization of methyl methacrylate in the presence of iron(II) complex with tetradentate nitrogen ligands under conditions of atom transfer radical polymerization, *Eur. Polym. J.* **40**, 1095–1104 (2004).

IV Ibrahim, K., Starck, P., Löfgren, B., and Seppälä, J., Synthesis and characterization of amphiphilic triblock copolymers by iron-mediated atom transfer radical polymerization, *J. Polym. Sci., Part A: Polym. Chem.* **43**, 5049-5061 (2005).

V Ibrahim, K., Salminen, A., Holappa, S., Kataja, K., Lampinen, H., Löfgren, B., Laine, J., and Seppälä, J., Preparation and characterization of polystyrene-poly(ethylene oxide) amphiphilic block copolymers via ATRP : potential application as paper coating materials, *J. Appl. Polym. Sci.*, **102**, 4304-4313 (2006).

VI Yliheikkilä, K., Lappalainen, K., Castro, P., Ibrahim, K., Abu-Surrah, A., Leskelä, M., and Repo, T., Polymerization of acrylate monomers with MAO activated iron(II) and cobalt(II) complexes bearing tri- and tetradentate nitrogen ligands, *Eur. Polym. J.* **42**, 92–100 (2006).

VII Transworld Research Network 37/661 (2), Fort P.O., Trivandrum-695 023, Kerala, India
Well-defined Metal Complexes-Catalyzed Polar Polymer Synthesis, 2008
ISBN: 978-81-7895-368-7 Editors: Adnan S. Abu-Surrah and Khalid Ibrahim

VIII Yahya S. Al-Degs & Adnan S. Abu-Surrah & Khalid A. Ibrahim, Preparation of highly selective solid-phase extractants for Cibacron reactive dyes using molecularly imprinted polymers. *Anal. Bioanal. Chem.* 393(3):1055-62(2009)

IX Khalid A. Ibrahim, Ala'a al-muhtasib, Jukka Seppala, Synthesis of Poly(fluorinated styrene)-block-Poly(ethylene oxide) Amphiphilic Copolymers via ATRP : Potential Application As Paper Coating Materials. *J. Polym. Intern.* 58(8):927-32(2009).

X A. S. Abu-Surrah, K. A. Ibrahim, H. M. Abdel-Halim
"Polymerization of t-butyl acrylate via MAO activated salicylaldehyde-based transition metal complexes", *Transition metal Chemistry*, 2009, 34 (7) 803-808.

XI Muhanned A. Hararaha, Khalid A. Ibrahim, Ala 'a H. Al-Muhtasebb, Rushdi I. Yousef, A. Abu-Surrah, Ala'a Qatatshehe
"Removal of phenol from aqueous solutions by adsorption onto polymeric adsorbents", *Journal of Applied Polymer Science*, 117(4) (2010) 1908-1913.

XII A. S. Abu-Surrah, K. A. Ibrahim, M.Y. Abdalla, A. A. Issa,
"Pentacoordinated iron(II) complexes with 2,6-bis[(imino)ethyl]pyridine-Schiff base ligands as new catalyst systems mediated atom transfer radical polymerization of (meth)acrylate monomers" *J. Polym. Research*, 2010, 9391-7.

XIII KHALID A. IBRAHIM. "Atom Transfer Radical Copolymerization of Styrene and Poly(ethylene oxide)-alkyl Methacrylate Macromonomer". *Asian Journal of Chemistry*; Vol. 23, No. 2 (2011), 777-78.

XIV Ala'a H. Al-Muhtaseb, Khalid A. Ibrahim, Ahmad B. Albadarin, Omar Ali-khashman, Gavin M. Walker, Mohammad N.M. Ahmad. 'Remediation of phenol-contaminated water by adsorption using poly(methyl methacrylate) (PMMA)'. *Chemical Engineering Journal* 168 (2011) 691–699

XV Omar Ali Al-Khashman, Ala'a H. Al-Muhtaseb, Khalid A. Ibrahim. 'Date palm (*Phoenix dactylifera* L.) leaves as biomonitors of atmospheric metal pollution in arid and semi-arid environments'. *Environmental Pollution* 159 (2011) 1635-1640.

XVI Khalid A. Ibrahim, Ala'a H. Al-Muhtaseb, Oswald Prucker, Jürgen Rühle. 'Preparation of hydrophilic polymeric nanolayers attached to solid surfaces via photochemical and ATRP techniques'. *Journal of Polymer Research* (2013), 20:124.

XVII Khalid A. Ibrahim, Khaeel A. Abu-Sbeih, Ibrahim Al-Trawneh, Laurance Bourghli, "Preparation and Characterization of Alkyd Resins of Jordan Valley Tomato Oil" *J Polymers and the Environment*, published online 22 June, 2014. DOI 10.1007/s10924-014-0664-9.

XVIII Ahmad Abu-Jrai Jehad A. Yamin Khalid A. Ibrahim, Omar A. Al-Khashman Mouath A. Al-Shaweesh Muhannad A. Hararah Umer Rashid, Mohammad Ahmad Gavin M. Walker Ala'a H. Al- Muhtaseb, "NO_x removal efficiency and N₂ selectivity during selective catalytic reduction process over Al₂O₃ supported highly

cross-linked polyethylene catalyst”, *Journal of Industrial and Engineering Chemistry*, vol 20, 2014, pp 1650-1655.

Promotion papers for professorship of Dr. Khalid A. Ibrahim

List of Journal Publications

- 1) S. Shukrullah , M. Y. Naz 1, N. M. Mohamed , **K. A. Ibrahim** , N. M. AbdEl-Salam and A. Ghaffar "CVD Synthesis, Functionalization and CO₂ Adsorption Attributes of Multiwalled Carbon Nanotubes" *Processes*, published on line: 18 September 2019. (2019 ISI impact factor: 1.963).
- 2) Shukrullah, S Naz, MY Mohamed, NM **Ibrahim**, **KA** Ghaffar, A; AbdEl-Salam, NM "Production of bundled CNTs by floating a compound catalyst in an atmospheric pressure horizontal CVD reactor" *Results in Physics*, Published Online: 04 January 2019. (2019 ISI impact factor: 3.28).
- 3) Shazia Shukrullah, Muhammad Y. Naz, Norani M. Mohamed, **Khalid A. Ibrahim**, Abdul Ghaffar, and Nasser M. AbdEl-Salam "Synthesis of MWCNT Forests with Alumina-Supported Fe₂O₃ Catalyst by Using a Floating Catalyst Chemical Vapor Deposition Technique" *Journal of Nanomaterials*, Published Online: 17 March 2019. (2019 ISI impact factor: 3.28).
- 4) **Khalid A. Ibrahim**, Muhammad Yasin Naz, Shazia Shukrullah, Shaharin Anwar Sulaiman, Abdul Ghaffar, Nasser AbdEl-Salam "Controlling Nitrogen Pollution via Encapsulation of Urea Fertilizer in Cross-linked Corn Starch" *Bioresources*, Published Online: 14 April 2019. (2019 ISI impact factor: 1.396).
- 5) Z. Hussain, K. Hussain, S. A. Sulaiman, M. Y. Naz , **K. A. Ibrahim**, and N. M. Abdel-Salam "Preparation of Upgraded Bio-Oil Using Two-Step Catalytic Pyrolysis of Fresh, Putrefied, and Microbe-Treated Biomas" *Environmental Progress & Sustainable Energy*, Published Online: 6 December 2017. (2017 ISI impact factor: 3.463).
- 6) N. Bashir, K. Hussain, Z. Hussain, M.Y. Naz, **K.A. Ibrahim**, N.M. Abdel-Salam "Effect of metal coil on product distribution of highly upgraded bio-oil

- produced by microwave-metal interaction pyrolysis of biomass" *Chemical Engineering & Processing: Process Intensification*, Published Online: 15 June 2018. (2018 ISI impact factor: 3.031).
- 7) Z. Hussain, N. Bashir, M. I. Khan, K. Hussain, S. A. Sulaiman, M. Y. Naz., **K. A. Ibrahim** and N. M. Abdel-Salam "Production of Highly Upgraded Bio-oils through Two-Step Catalytic Pyrolysis of Water Hyacinth" *Energy Fuels*, Published Online: September 25, 2017. (2017 ISI impact factor: 3.091).
 - 8) **Ibrahim, KA** Naz, MY Sulaiman, SA; Ghaffar, A; Jamil, Y; Abdel-Salam, NM "Effect of Urea and Borate Plasticizers on Rheological Response of Corn Starch" *Polymers*, Published Online: 6 September 2017. (2017 ISI impact factor: 3.364).
 - 9) M.Y. Naz , S.A. Sulaiman , S. Shukrullah , A. Ghaffar , **K.A. Ibrahim** , N.M. Abdel-Salam "Development of erosion-corrosion mechanisms for the study of steel surface behavior in a sand slurry" *Measurement*, Published Online: 2 May 2017. (2017 ISI impact factor: 2.791).
 - 10) Rahim, H; Sadiq, A; Khan, S; Khan, MA; Shah, SMH ; Hussain, Z; Ullah, R; Shahat, AA; **Ibrahim, K** "Aceclofenac nanocrystals with enhanced in vitro, in vivo performance: formulation optimization, characterization, analgesic and acute toxicity studies" *Drug Design, Development and Therapy*, Published Online: 23 August 2017. (2017 ISI impact factor: 3.208).
 - 11) Illahi, A; Ghaffar, A; Ali, MM **Ibrahim, KA** Abdel-Salam, NM ; Ahmed, S "Comparative study of scattered electromagnetic waves from metamaterial coated cylinders" *Journal of Optoelectronics and Advanced Materials* Published Online: April 6, 2017. (2017 ISI impact factor: 0.449).
 - 12) **Khalid A Ibrahim**, Asma Nawaz, Shamim Mumtaz, Furqan Muhammad Iqbal, Ahmad Khan, Shahiq uz Zaman, Nasser M Abd El-Salam Naseem Ullah, Tajamul Husain and Syed Nisar Hussain Shah " Formulation, Evaluation and release rate characteristics of medicated jelly of vitamin C" *Pak. J. Pharm. Sci*, Published Online: March 2017. (2017 ISI impact factor: 0.649).
 - 13) Ghaffar, A, Hussain, M.M., Abdel-Salam, N.M., **Ibrahim, K.**, Naz, M.Y., Naqvi, Q.A "Echo width of plasma coated topological insulator cylinder" *International Journal of Applied Electromagnetics and Mechanics*, Published Online: 2017. (2017 ISI impact factor: 0.769).
 - 14) **Khalid A. Ibrahim**, Bassam I. El-Eswed, Khaleel A. Abu-Sbeih, Tawfeeq A. Arafat, Mahmoud M. H. Al Omari, Fouad H. Darras and Adnan A. Badwan

- "Preparation of Chito-Oligomers by Hydrolysis of Chitosan in the Presence of Zeolite as Adsorbent" *marine drugs*, Published Online: 23 July 2016. (2016 ISI impact factor: 4.379).
- 15) Al-Zoubi, H, **Ibrahim, KA**, Abu-Sbeih, KA "Removal of heavy metals from wastewater by economical polymeric collectors using dissolved air flotation process" *Journal of Water Process Engineering*, Published Online: 12 August 2015. (2015 ISI impact factor: 3.173).
- 16) Mohammad Al-Hwaiti , **Khalid A. Ibrahim** , Muhanned Harrara "Removal of heavy metals from waste phosphogypsum materials using polyethylene glycol and and polyvinyl alcohol polymers" *Arabian Journal of Chemistry*, Published Online: 5 August 2015. (2015 ISI impact factor: 3.298).
- 17) **Ibrahim, KA**, Abu-sbeih, KA, Al-Trawneh, I Bourghli, L "Preparation and Characterization of Alkyd Resins of Jordan Valley Tomato Oil" *J Polym Environ*, Published Online: 22 June 2014. (2014 ISI impact factor: 2.765).
- 18) Abu-Jrai, AM, Yamin, JA, **Ibrahim, KA**, Al-Khashman, OA, Al-Shaweesh, MA, Hararah, MA, Rashid, U, Ahmad, M, Walker, GM, Al-Muhtaseb, AH "NO_x removal efficiency and N₂ selectivity during selective catalytic reduction processes over Al₂O₃ supported highly cross-linked polyethylene catalysts" *Journal of Industrial and Engineering Chemistry*, Published Online: 20 August 2013. (2013 ISI impact factor: 3.37).
- 19) **Ibrahim, KA**, Al-Muhtaseb, AH, Prucker, O, Ruhe, J "Preparation of hydrophilic polymeric nanolayers attached to solid surfaces via photochemical and ATRP techniques" *J Polym Res*, Published Online: 29 March 2013. (2013 ISI impact factor: 1.53).

2. Courses:

The following courses had been studied:

- i. Amphiphilic Polymers
- ii. Introduction to Physical Polymer Science
- iii. Calculation Collection of Polymer Technology
- iv. Polymer synthesis
- v. Polymer Physics II: Structure Formation in Block Copolymers

- vi. Plant Design Course: Inherently Safer Design
- vii. Metals and Ligand Reactivity
- viii. Metallo-Organic Chemistry
- ix. Combinatorial Chemistry

*** Others:**

- 1- General Chemistry, a laboratory manual (1993), shared with dept. members Applied Science University.
- 2- Industrial Chemistry, a laboratory manual (1993), shared with dept. members Applied Science University.
- 3- Chemical Engineering Reaction, Particulate Technology, Mass Transfer Laboratory manuals (1997), Chemical Engineering Department, Applied Science University.

*** Conferences:**

- 1- Bio-and Nanopolymers Research, Turku, 2003, Finland.
- 2- Europolymer Congress 2003, Stockholm, Sweden, June 23-27, 2003.
- 3- Bio-and Nanopolymers Research, Helsinki, 2004, Finland.
- 4- Bio-and Nanopolymers Research, Helsinki, 2005, Finland.
- 5- 1st INTERNATIONAL SOLAR ENERGY CONFERENCE
& 4th GERMAN –JORDANIAN WORKSHOP 2012
The Potential of CSP and Solar Applications in Jordan February 27 – 29, 2012
Amman – Jordan.
- 6- THE SIXTH JORDAN INTERNATIONAL CHEMICAL ENGINEERING
CONFERENCE

12th-14th March 2012

Holiday Inn Hotel, Amman

References

- 1. Prof. Jukka Seppala. Helsinki University of Science and Technology- Department of Polymer Technology, Finland.
- 2. Prof. Jurgen Ruhe. Friburg University, Department of chemistry and Physics of Interface, Germany.

3. Prof. Adnan Abu-Surah. Hashimite University, Department of chemistry, Jordan.