

Layla Abdul Kareem Al Juhaïman

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Office No. 8055732- Science College- Building 5- King Saud University-
Female Campus

1-Eduaction

- BS in Chemistry: University of Arizona, Tuson, USA, 1982.
- Teacher Assistant, King Saud University,1982.
- Master Degree in Chemistry (Catalysis) King Saud University ,1989.
- Lecturer, Chemistry Department, King Saud University,1989.
- PHD in Chemistry (Corrosion):King Saud University, 2000.-1420
- Assistant Professor of Chemistry, 2001- 1421
- Associate Professor of Chemistry, 2010-1431
- **Full Professor of physical chemistry, 2017 - 1438**

2-Language :

- Arabic : My native language.
- English : fluent speaking & writing.

3-Work Experience &Positions

- Head of Female Committee in Saudi Chemical Society,2001-2002.

- Coordinator of Public Affairs, Center of Science & Medical Studies, 2002.
- From 2002-2006, Vice chairman of chemistry Dep., girls section.
- Chief of Comprehensive Exam in Chemistry Department, 2010-2012.
- Head of Quality Unit in Science College 2011-2012.
- Member of Academic & Program Committee in Science College 2013-2016.
- Member of Teacher Assistant Committee in chemistry department 2007-2017.

4-Teaching Expierence & Skills

- I taught the following subjects for college students: General chemistry ,Chemistry of Interphases, Thermodynamics, Corrosion, Phases & Solutions, Practical Physical Chemistry
- I taught the following subjects for graduate students: Advanced Thermodynamics, Applied Physical Chemistry, Selected Topics in Physical Chemistry.
- I operate Potentiostat /Galvanostat to obtain corrosion measurements.
- I used the following techniques: FTIR, UV, XRD, Particle size analyzer, ICP, TGA, TEM and SEM.
- Teaching a course “Failure Analysis” 2017 and 2018 for PHD student in Dental College- King Saud University.

5- Research Grants and Awards

1. I received a grant from Sabic in 2005-2006 to do a research. I hired two students to work as research assistant.
2. I received a grant from King Abdul-Aziz City for Science & Technology in 2007-2008 to do a research in nanotechnology abroad. I spent my Sabbatical year in 2007-2008 in National Research Council (NRC), Ottawa, Canada.
3. I won the second award for distinguished researcher in King Saud University, female section in year 2010.

4. Principal investigator of a “Clay group” funded by the Deanship of Scientific Research at King Saud University through the research group project No. RGP- -102. The other Members Dr. Maha Al-Qunabet, Dr. Waffa K. Mekhamer.
5. Receiving a patent from the American Patent Office Feb- 2018.
LA Al Juhaiman, N. MM. Aref, WK Mekhamer, US Patent. Method of using a clay suspension to prevent viral and phytoplasma diseases in plants”

6- Writing ,Translating Books and Conferences

1. I was one of the authors of “Experiments in Physical chemistry” –by Dr. Nathem Al Nather-Layla Al Juhaiman –Mohammad Saadah ,1416 - 1996.
 2. Translation of *"Principles of Catalyst Development"* By James T. Richardson, 2010 .
 3. I presented a paper "Open Circuit Potential of Aluminum in aqueous solutions containing some carboxylic acids “ in a Symposium of Saudi Chemical Society. Riyadh ,1419
 4. I presented a lecture about “ Using Aluminum Cookwares” in Center of Science & technology,Riyadh, King Saud University ,1421.
 5. I presented a lecture about “Dangers of Using Aluminum Cookwares” in Center of Science & technology, Riyadh, King Saud University ,1423
 6. I presented a paper about “Estimating Aluminum leaching from Aluminum cookware in different meat extract & dairy products” in Corrosion Conference in Egypt ,2006.
 7. I presented a paper 'PVP as a corrosion inhibitor for C-Steel in HCl solutions" in Bahrain , 13th Middle East Corrosion Conference & Exhibition , 2010.
 8. I attended a conference about “International Greening Education for Sustainability” in2010 - Karlsruhe ,Germany.
 9. I presented a paper “Effect of sulphanilamide adsorption on zeta potential and water loss of raw and Na-activated bentonite”, Colloids and Materials-2011 ,Amsterdam,Holland.
- I attended a conference The European Corrosion Congress 2012, Istanbul, Turkey.

10. I presented a paper "Anticorrosive coating of carbon steel using nano composite prepared from polystyrene \modified local clay", in Third International Conference on Multifunctional, Hybrid and Nanomaterials, Rome , Italy, **2013**
11. I presented a paper "**Nano composite anticorrosive coating of carbon steel using polystyrene /organic local clay**" **Colloids and Materials-2014**, in Madrid –Spain.
12. I presented a lecture about "Inter disciplinary research work" **in Wed. 24 Safar-1441- 23 September-2019.**
- 13-Reviewing a paper"Preparation Process and Corrosion Resistance of Aluminum Alloy Superhydrophobic Membrane" for the journal Anti-Corrosion Methods and MaterialsSeptember-2019
- 14-Evaluation of scientific promotion of an associate professor in Mosel University- Iraq
1n July-2019

6-List of graduate student I supervised:

No.	Graduate Student	Subject	Date of finishing	Supervision
1	Laila Alwan , master	kinetics	2006	Co-supervisor
2	Raesah Alshehrey , master	Corrosion	2008	Chief supervisor
3	Maymonah Al Harthey, master	kinetics	2011	Co-supervisor
4	Amal Abu Mustafa, master	Corrosion	2011	Chief supervisor
5	Daliah Al Enesey , master	Corrosion	2014	Chief supervisor
6	Abeer Boajan, , master	Polymer	2010	Co-supervisor
7	Al Anood AlJagwani, master	Corrosion	2017	Chief supervisor
8	Abeer Boajan ,PHD	Polymer	2016	Co-supervisor
9	Murefah Al Enesey,PHD	Polymer	2018	Co-supervisor
10	Nashwa Howyan , master	Corrosion	2018	Chief supervisor
11	Al Johara Al Angery, master	Corrosion	2019	Chief supervisor
12	Mona AlJefarene , master	Corrosion	----	Chief supervisor

7-List of graduate student I was an examiner in master and PHD

No.	Graduate Student	year	College
1	Salwa AlReshadan	1424-2003	Chemistry Dep. ,King Saud University
2	Asmaa Al Sheref , master	1425-2004	Science College in Dammam
3	Kawthar Al amer	1427-2006	Science College in Dammam
4	Eman Alabbd, master	1430-2009	Science College, Alfaysal University
5	Magedah AlEnesey,PHD	1434-2014	Science College in Prince Nora University
6	Salwa Al Reshadan	1439-2017	Chemistry Dep. , King Saud University
7	Tahaney Al Garney	1439-2018	Chemistry Dep., King Saud University
8	Rana Obaid	1440-2019	Chemistry Dep., King Saud University

8-List of Publications

1. A . Al Mayouf, **L. Al Juhaiman** & A. Al Sohaybani "Open Circuit Potential of Aluminum in aqueous solutions containing some carboxylic acids "J. Saudi Chem. Soc. ; (2000)V.4, No.3; 384-365. **PHD. Thesis**
2. **L. Al Juhaiman** , A. Al Mayouf, &A. Al Sohaybani"Corrosion of Aluminum in aqueous solutions containing Aspartic and Glutamic acid w/without Sodium Chloride",J. Saudi Chem. Soc. ; (2004)V.8, No.3; 547-558. **PHD. Thesis.**
3. A. Al Mayouf, **L. Al Juhaiman** & A. Al Sohaybani , "Corrosion of Aluminum in ascorbic , citric and tartaric acid w/without chloride ions" , Anti-Corrosion Methods & Materials (2007) V.55, No.2 , 79-83. **PHD. Thesis.**
4. **L. Al Juhaiman**, A. Al Mayouf, A. Al suhaybani.
"Corrosion of Aluminum alloys in Citric acid w/without Sodium chloride Presented in Chemindex Conference, Bahrain, 2006" **PHD. Thesis**
5. **L. A. Al Juhaiman***, L. A. Al-Alwan , and A. A. Zaghloul "Medium Effect on the dissociation constants of maleic and Tartaric acids in acetone-

water binary mixtures, a thermodynamic study " Z. Phys.Chem., (2006) 220 ,p.1181-1198.

6. L. A. Al-Alwan¹, **L. A. Al Juhaiman**^{2*} and A. A. Zaghloul³, " Medium effects on the dissociation constants of malic and tartaric acids in acetone-water binary mixtures, a thermodynamic study " J. Saudi Chemical Society ,(2008) V.12, No.4, p. 555-568.

7. **Layla A. Al Juhaiman***, Wafaa K. Mekhamer & Abeer M. Al-Boajan . "Effect of polyvinyl pyrrolidone on the zeta potential and water loss of raw and Na-rich Saudi bentonite" Surface & Interface Analysis , DOI 10.1002/sia.3669,2010.

8. **Layla A. Al Juhaiman** "Poly vinyl pyrrolidone as a corrosion inhibitor for C-Steel in HCl solutions" International Journal of Electrochemical Science,2016

9. **Layla A. Al Juhaiman** " Estimating Aluminum leaching from Aluminum cookware in different meat extract & dairy products" J. Saudi Chemical Society , Volume 14, Issue 1, 2010, p. 131-137.

10. **Layla Al Juhaiman**, a.b Ludmila Scoles,a David Kingston,a Bussaraporn Patarachao,a Dashan. Wanga and Farid Bensebaa*a "Green synthesis of tunable Cu(In_{1-x}Ga_x)Se₂ nanoparticles using non-organic solvents" Green Chemistry, 2010 , DOI: **10.1039/c001813a**.

11. Mekhamer, W.K., **L.A.Al Juhaiman**, * and Al-Boajan, A.M “Effect of Sulphanilamide Adsorption on Zeta Potential and Water Loss of Raw and Na-Activated Bentonite” , International Journal of Basic & Applied Sciences IJBAS-IJENS , Vol:12 No:06,pp.210-213, 2012

12. M. Al-Qunaibit M., **L. Al Juhaiman**, Mechanical Modification of Khulays Clay; Structural and Textural Effects” International Journal of Basic & Applied Sciences , IJBAS-IJENS Vol:12 No:06,pp.205-209,2012

13. **Layla A. Al Juhaiman** "Estimating Aluminum Leaching from Aluminum Cookware in Different Vegetable Extracts “,International Journal of Electrochemical Science, 7, pp. 7283 – 7294,2012.

14. Mekhamer, W.K., **Al Juhaiman, L.A.*** and Al-Boajan, A.M. (2012) "Effect of sulphanilamide adsorption on zeta potential and water loss of raw and Na-activated bentonite" International Journal of Basic & Applied Science, Vol.12,no.6.

15. [Layla A. Al Juhaiman](#), Amal Abu Mustafa, Wafaa K. Mekhame Polyvinyl Pyrrolidone as a Green Corrosion Inhibitor of Carbon Steel in Neutral Solutions Containing NaCl: Electrochemical and Thermodynamic Study” International Journal of Electrochemical Science, 7, pp.8578 – 8596, 2012.
16. [Layla A. Al Juhaiman](#), Amal Abu Mustafa, Wafaa K. Mekhame Polyvinyl pyrrolidone as a green corrosion inhibitor for carbon steel in alkaline solutions containing NaCl”, Anti-Corrosion Methods and Materials , Vol. 60 (1), pp. 28 – 36,2013.
17. [Layla A. Al Juhaiman](#)^{*}, Raesa A. Al-Shihry, Hassan M. Al-Hazim “Effect of Cardamom Extract on leaching of Aluminum Cookware” ,International Journal of Electrochemical Science, 9 ,pp.1055 – 1070,2014.
18. [Layla A. Al Juhaiman](#)^{*}, Raesa A. Al-Shihry, Hassan M. Al-Hazimi “The Inhibition Effect of Cinnamon Extract on Leaching of Aluminum Cook Wares in NaCl Solutions at Quasi-Cooking Condition” Journal of Surface Engineered Materials and Advanced Technology, 5, 177-189, 2015.
19. [Layla A. Al Juhaiman](#)^{1,*}, Dalia A. Al-Enezi^{2,†}, Waffa K. Mekhamer, “Preparation and Characterization of Polystyrene/Organoclay Nanocomposites from Raw Clay” Digest Journal of Nanomaterials and Nanostructure, (2016)V11,No.1.
20. [L. A. Al Juhaiman](#)^{*}, D. A. Al-Enezi, W. K. Mekhamer “Polystyrene/Organoclay Nanocomposites as Anticorrosive Coatings of C-Steel” Int. J. Electrochem. Sci., 11 (2016) 5618 – 5630,doi: 10.20964/2016.07.22
21. [Layla A. Al Juhaiman](#), Curcumin Extract as a Green Inhibitor of Leaching from Aluminum Cookware at Quasi-Cooking Conditions , Green and Sustainable Chemistry, (2016)6, 57-70.
22. Abeer Muhamad Beagan, Taieb Aouak, [Layla Abdulkarim Al Juhaiman](#), Abdelbasset Alodainy and Wassim Sharaf Saeed, "Poly(2-hydroxyethylmethacrylate-graft-folic acid), Synthesis, Solubility

Enhancement and Release Dynamic of Folic Acid", Designed Monomers and Polymers, Vol. 19, no. 6, 479-495, 2016.

23. Maymounah N. Al harthi ,[Layla Al Juhaiman](#) and Amel M. Ismail, Medium Effect on the Ring-Opening Reaction of Some *Para*-substituted Azlactones in Ethanol-Water Mixtures , Asian J. Chem. /2017 / 2(1) / pp 1-4 , DOI:10.14233/ajomc.2017.AJOMC-P50
24. Abeer M. Beagan, Taieb Aouak, [Layla A. AlJuhaiman](#), Abdelbasit Mohammed Alodainy, Waseem Sharaf Saeed & Mohamed Oulad Smane ,Polymer-Plastics Technology and Engineering Poly(2-hydroxyethylmethacrylate-co-2folate, (2017). pp.1-22, DOI: 10.1080/03602559.2017.1298799.
25. MUREFAH M. ANAZY , WAFA K. MEKHAMER and [LAYLA A. AL-JUHAIMAN](#) “Effect of Clay Modification and Preparation Method on Crystalline Structure of Isotactic Polypropylene/Organoclay Nanocomposites” Asian Journal of Chemistry; Vol. 30, No. 5 (2018).
<https://doi.org/10.14233/ajchem.2018.21250>
26. **Layla A. Al Juhaiman, Alanood A. Aljaghwan, Waffa K. Mekhamer** “Preparation and Characterization of Polyamide6/Organic Clay Nanocomposite as protective coating for Carbon Steel” **INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE**, 15 (2020) 6938 – 6954.
doi: 10.20964/2020.07.79