

Zainab Mohammed Abduallah Almarhoon

Nationality: Saudi

Languages: Arabic, English

Academic Employment:

Associate Professor, College of science, Department of Chemistry, King Saud University

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URL Googel Scholar: https://scholar.google.com/citations?user=dFu_XnwAAAAJ&hl=en

Employment History

- Associate Professor- Department of Chemistry - King Saud University, Saudi Arabia (2020 – till now)
- Assistant professor - Department of Chemistry - King Saud University, Saudi Arabia (2014)
- Lecturer- Department of Chemistry - King Saud University, Saudi Arabia (2012)
- Teaching Assistant- Department of Chemistry - King Saud University, Saudi Arabia (2010)

Scientific Degrees

- Ph.D. in Chemistry, King Saud University, Saudi Arabia (2014)
- Master in Chemistry, King Saud University, Saudi Arabia " (2007)
- Bachelor of chemistry, Imam Abdulrahman Bin Faisal University, Saudi Arabia (2000)

Research interest

Synthesis and characterization of heterocyclic compounds, peptide, non-peptide, Nanoparticles, Metal organic framework and their environment applications, green

chemistry and microwave synthesis of biologically active compounds, Isolation natural product, Photocatalytic Degradation, water purification.

Teaching Activities

General Chemistry (1), Identification of Organic Compounds, Practical Applications of Organic Chemistry, Introduction to Organic Chemistry, Electro-analytical Methods, Organic Chemistry for Health Colleges, Principles of Organic Chemistry (1), Organic Chemistry (2), Instrumental Training, Research Project, Natural Products, Heterocyclic Organic Chemistry, Organic Reaction Mechanism, Stereochemistry, Selected Topics in Organic Chemistry (Total Synthesis of Bioactive compounds).

Curent project

PI: Research Group Contract (RGP- 070) entitled (Heterocyclic Compounds)

Researchers Supporting Project (RSPD2023R603)

Scholarship Award

Qatif Achievement Award 2015

Award for Excellence in Scientific Research at Science college, 2023

Award for Excellence in Teaching at Science college, 2023

Managemnt and Committees Position

- Coordinator of the Committee on the distribution of the teaching load on the Teaching Assistants and lectures from 2010 until the end of the first semester of 2014.
- Coordinator in the Communication Committee until 2012.
- Coordinator of the Community Service Committee 2015/2014 -2018.
- Committee for Academic Accreditation and Accreditation 2014/2015 -2018.
- Committee for the conduct of tests in the 1st 2014-2015.
- Coordinator of the course 145 CHEM 2014 -2016
- Coordinator of the organic chemistry 2016/2017- 2018
- Coordinator of the Unit Documentation and Statistics 2016/2017- 2018

- Annual Report Committee 2016/2017 - 2018.
- Member of Public Relations and Community Partnership Committee in Chemistry Department 2018 till now
- Coordinator of the Laboratory and Safety Committee 2018 till now
- Member of ISO Committee 2018 -2021
- Coordinator of the organic chemistry 2022 - 2024
- Member of Student affairs Committee 2022 till now
- Member of talent Discovery and development unit 2023 till now

University and community service

- Supervisor of Research Assistant Internship Program
- Examiner for several undergraduate students' projects research
- Examiner for theses of master students
- Supervisor of master students
- Reviewer for several scientific articles
- Member of the Student Advisory Committee for Undergraduate and Graduate Students
- Organization of Social and Cultural Events to Enhance Community Relations between the University and Society
- Organization of Activities for the Department of Chemistry, College of Science, and the Saudi Chemical Society

Publications

1. Monirah A. Al-AlShaikh, **Zainab M. Al-Marhoon** and H. M. Al-Hazimi " Microwave Assisted Synthesis of Some Tetrahydropyrimidinethione, Thiazolo [3,2-a]Pyrimidine and Xanthenedione Derivatives " J. Saudi Chem. Soc., 2006, 10(3), 507-518.
2. Sawsan A. Omer, M.A. Elobeid, M.H. Elamin, Z.K. Hassan, P. Virk, M.H. Daghestani, E.M. Al-Olayan, Nadia A. Al-Eisa and Zainab **M. Almarhoon** " Toxicity of Olive Leaves (Olea europaea L.) In Wistar Albino Rats "Asian Journal of Animal and Veterinary Advances, 2012, 175-1182.

3. Elobeid, Mai A; **Almarhoon, Zainab M**; Virk, Promy; Hassan, Zeinab K; Omer, Sawsan A; ElAmin, Maha; Daghestani, Maha H & AlOlayan, Ebtisam M " Bisphenol A Detection in Various Brands of Drinking Bottled Water in Riyadh, Saudi Arabia Using Gas Chromatography/Mass Spectrometer " Tropical Journal of Pharmaceutical Research, 2012; 11(3): 455-459.
4. Mai A Elobeid, **Zainab M Almarhoon**, Promy Virk, Zeinab K Hassan, Sawsan A Omer, Maha ElAmin, Maha H Daghestani and Ebtisam M AlOlayan" Bottled Water in Riyadh, Saudi Arabia Using Gas Chromatography/Mass Spectrometer" Tropical Journal of Pharmaceutical Research, June 2012; 13 (3): 455-459.
5. Maha El Amin, Promy Virk, Mai AbdelRahman Elobeid, **Zainab Mohammed Almarhoon**, Zeinab Korany Hassan, Sawsan Ali Omer, Nada Mohammed Merghani, Maha Hassan Daghestani and Ebtisam Mohammed Al Olayan, "Anti-diabetic effect of *Murraya koenigii* (L) and *Olea europaea* (L) leaf extracts on streptozotocin induced diabetic rats " Pak. J. Pharm. Sci., March 2013; 26 (2): 359-365.
6. Mai A Elobeid, Promy Virk, Muzzammil I Siddiqui, Sawsan A Omer, Maha ElAmin, Zeinab Hassan, **Zenaib M Almarhoon**, Nada Merghani, Amira AlMahasna, Maha Daghestani, Ebtisam AlOlayan" Antihyperglycemic Activity and Body weight effects of Extracts of *Embllica officianalis*, *Tamarix nilotica* and Cinnamon Plant in Diabetic Male Rats "Wulfenia 2013; 20 (11):18-31.
7. Ayman El-Faham, **Zainab Al Marhoon**, Ahmed Abdel-Megeed, and Mohamed Siddiqui, " An Efficient and Mild Method for the Synthesis and Hydrazinolysis of N-Glyoxylamino Acid Esters" Journal of Chemistry, 2013;1-10.
8. Ayman El-Faham, **Zainab Al Marhoon** , Ahmed Abdel-Megeed and Fernando Albericio" OxymaPure/DIC: An Efficient Reagent for the Synthesis of a Novel Series of 4-[2-(2- Acetylaminophenyl)-2-oxo-acetyl amino] Benzoyl Amino Acid Ester Derivatives" Molecules 2013; 18:14747-14759.
9. **Zainab Al Marhoon**, Ahmed Abd El-Mageed, Essam N. Sholkamy, M. Rafiq H. Siddiqui, Ayman El-Faham " Synthesis of Phenylcarbamic Acid and 2-[2-Oxo-3-(4-substituted phenylimino)- indolin-1-yl]acetohydrazide Derivatives as Promising Antifungal Agents" Asian Journal of Chemistry, 2014;26(22): 7665-7672.
10. Ayman El-Faham, **Zainab Al Marhoon**, Ahmed Abdel-Megeed, Sherine N. Khattab, Adnan A. Bekhit, Fernando Albericio" α -Ketoamino acid ester derivatives as promising MAO inhibitors" Bioorganic & Medicinal Chemistry Letters , 2015; 25 : 70–74.

11. Sevgi Kansiz, **Zainab M Almarhoon** and Necmi Dege "Synthesis, crystal structure and Hirshfeld surface analysis of tetraaquabis(isonicotinamide- κ N1)cobalt(II) fumarate" *Acta Cryst.* 2018; E74, 217–220.
12. Mavis, e Yaman, **Zainab Mohammed Almarhoon**, Su" kriye Cakmak, Halil Ku" tu" k, Gu" ngo" r Meral and Necmi Dege" Crystal structure of 2,3-dimethoxy-N-(4-nitrophenyl)Benzamide" *Acta Cryst.* 2018; E74, 41–44.
13. Muhammad Farooq, **Zainab M. Almarhoon**, Nael Abu Taha and Mohammed A.H. Al Wadaan, Ayman El-Faham" Synthesis and biological activity of a novel class of N-alkyl-isatin-3-iminobenzoic acid derivatives targeting hematopoiesis in zebrafish embryos and their anticancer activity in hematological cell lines" *Bulletins of the Pharmaceutical Society of Japan*, 2018; 41: 350-359.
14. Sayed Lall Badshah, Asad Ullah, Nasir Ahmad, **Zainab M. Almarhoon** and Yahia Mabkhot "Increasing the strength and Production of Artemisinin and Its Derivatives" *Molecules*, 2018; 23(1),100.
15. Siham Lahsasni, Dunya A. M. Al-Hemyari, Hazem A. Ghabbour, Yahia Nasser Mabkhoot, Fadilah S. Aleanizy, Asma A. Alothman, and **Zainab M. Almarhoon** " Synthesis, Characterization, and Antibacterial and Anti-Inflammatory Activities of New Pyrimidine and Thiophene Derivatives", *Journal of Chemistry*, 2018
16. **Almarhoon, Zainab**, Ali, Huma; Alothman, Asma A., "cytotoxicity and apoptosis in hepg2 and ht-29 cells due to the isolated bioactive compound from zea mays l. ", *fresenius environmental bulletin*, 2018;27(11), 7827-7836.
17. Sharma, Anamika, Zamisa, Sizwe J., Noki, Sikabwe , **Almarhoon, Zainab**, El-Faham, Ayman , de la Torre, Beatriz G. , Albericio, Fernando " Crystal structure, spectroscopic studies and theoretical studies of thiobarbituric acid derivatives: understanding the hydrogen-bonding patterns" *Acta Crystallographica Section C-Structural Chemistry*, 2018; C74(12), 1703.
18. Dahlous, Kholood A; **Almarhoon, Zainab**; Badjah-Hadj-Ahmed, Ahmed-Yacine ; AL Othman, Zeid A; El-Faham, Ayman " Microwave Irradiation Assists the Synthesis of a Novel Series of bis-Arm s-Triazine Oxy-Schiff Base and Oxybenzylidene Barbiturate Derivatives " *Molecules*, 2018; 23(11),2976.
19. Duchesne, Paul N. ; Li, Z. Y; Deming, Christopher P; Fung, Victor; Zhao, Xiaojing; Yuan, Jun; Regier, Tom ; Aldalbahi, Ali; **Almarhoon, Zainab** ; Chen, Shaowei, " Golden single-atomic-site platinum electrocatalysts", *Nature Materials*, 2018; 17(11), 1033.

20. Sharma, Anamika ; Noki, Sikabwe Zamisa, Sizwe J.; Hazzah, Heba A. ; **Almarhoon, Zainab M**; El-Faham, Ayman; de la Torre, Beatriz G. ; Albericio, Fernando "Exploiting the Thiobarbituric Acid Scaffold for Antibacterial Activity", *Chemmedchem*, 2018; 13(18), 1923-1930.
21. **Zainab Almarhoon**, Saied M. Soliman, Hazem A. Ghabbour and Ayman El-Faham " A Facile and Eco-Friendly Method for the Synthesis of Sulfonamide and Sulfonate Carboxylic Acid Derivatives—X-ray Structure, Hirshfeld Analysis and Spectroscopic Characterizations", *Crystals*, 2019, 9, 35.
22. S. M. Soliman, **Z. Almarhoon**, E. N. Sholkamy, Ayman El-Faham” Bis-pyrazolyl-s-triazine Ni(II) pincer complexes as selective gram positive antibacterial agents; synthesis, structural and antimicrobial studies” *J. Mol. Str.* 2019, 1195 315-322.
23. S. M. Soliman, **Z. Almarhoon** and Ayman El-Faham" Synthesis, Molecular and Supramolecular Structures of New Cd(II) Pincer-Type Complexes with s- Triazine Core Ligand" *Crystals* 2019, 9, 226 (1-16).
24. Othman Al Musaimi , Ayman El-Faham, **Zainab Almarhoon**, Alessandra Basso, Beatriz G. de la Torre, and Fernando Albericio" Bypassing Osmotic Shock Dilemma in a Polystyrene Resin Using the Green Solvent Cyclopentyl methyl Ether (CPME): A Morphological Perspective" *Polymers*, 2019, 11, 874 (1-13).
25. A. Barakat, Fardous F. El-Senduny, **Z. Almarhoon**, H. H. Al-Rasheed, F. A. Badria, A. M. Al-Majid, H. A. Ghabbour, and Ayman El-Faham" Synthesis, X-Ray Crystal Structures, and Preliminary Antiproliferative Activities of News-Triazine-hydroxybenzylidene Hydrazone Derivatives" *Journal of Chemistry* 2019, Volume 2019, Article ID 9403908, 10 pages.
26. A. Sharma, **Z. M. Almarhoon**, Ayman El-Faham, B. G. de la Torre and F. Albericio "Efficient Route for Synthesis of Enamines from 1,3-Alkyl-2-Thioxodihydropyrimidine-4,6(1H,5H)-dione Enols" *Letters in Organic Chemistry*, 2019, 16, 538-540.
27. Yahia N. Mabkhot, H. Algarni, Abdulrhman Alsayari, Abdullatif Bin Muhsinah, Nabila A. Kheder, **Zainab M. Almarhoon** and Faiz A. Al-aizari.” Synthesis, X-ray Analysis, Biological Evaluation and Molecular Docking Study of New Thiazoline Derivatives”. *Molecules*, 2019, 24(9), 1654.
28. M. Farooq, A. Sharma, **Z. Almarhoon**, A. Al-Dhfyan, A. El-Faham, N. Abu Taha, M. A. M. Wadaan, B. G. de la Torre, F. Albericio "Design and synthesis of mono- and di-pyrazolyl-s-triazine derivatives, their anticancer profile in human cancer cell lines, and in vivo toxicity in zebrafish embryos" *Bioorganic Chemistry*, 2019, 87 457–464.

29. **Zainab M. Almarhoon**, Wedad A. Al-Onazi, Asma A. Alothman, Amal M. Al-Mohaimeed and Eida S. Al-Farraj “ Synthesis, DNA Binding, and Molecular Docking Studies of Dimethylaminobenzaldehyde-Based Bioactive Schiff Bases” Journal of Chemistry,2019, Volume 2019, Article ID 8152721, 14 pages.
30. Eida S. Al-Farraj, **Zainab M. Almarhoon**, Asma A. Alothman, Amal M. Al-Mohaimeed, Wedad A. Al-Onazi “Synthesis, spectroscopic characterization and biological studies of nano-sized Co(II), Ni(II), Cu(II) and Zn(II) Schiff's base hybrids” Journal of Molecular Structure, 2019, 1195 , 17-31.
31. Ayman El-Faham, Muhammad Farooq, **Zainab Almarhoon**, Rakia Abd Alhameed, Mohammad A.M. Wadaan, Beatriz G. de la Torre, Fernando Albericio.” Di- and tri-substituted s-triazine derivatives: Synthesis, characterization, anticancer activity in human breast-cancer cell lines and developmental toxicity in zebrafish embryos”. Bioorganic Chemistry, 2019.
32. **Zainab Almarhoon**, Kholood A. Dahlous, Rakia Abd Alhameed, Hazem A. Ghabbour, Ayman El-Faham. “A Simple, Efficient, and Eco-friendly Method for the Preparation of a Novel Series of 3-Substituted -2,3-dihydroquinazolin-4(1H)-one Derivatives”. Molecules, 2019, 24.
33. Ayman El-Faham, Anamika Sharma, Muhammad Farooq, **Zainab Almarhoon**, Rakia AbdAlhameed, Mohammad A. M. Wadaan, Beatriz G.de la Torre, Fernando Albericio.” Protocol for synthesis of di- and tri-substituted s-triazine derivatives” MethodsX, 2020, 7,100825.
34. Rakia Abd Alhameed, **Zainab Almarhoon**, Sarah I.Bukhari, Ayman El-Faham, Beatriz G. de la Torre, Fernando Albericio. “Synthesis and antimicrobial activity of a new series of thiazolidine-2,4-diones carboxamide and amino acid derivatives“ Molecules (2020), 25(1), 105.
35. Rakia Abd Alhameed, Emanuela Berrino, **Zainab Almarhoon**, Ayman El-Faham, Claudiu T Supuran. “A class of carbonic anhydrase IX/XII - selective carboxylate inhibitors” . Journal of Enzyme Inhibition and Medicinal Chemistry (2020), 35(1), 549-554.
36. Alothman, Asma A.; **Almarhoon, Zainab M.**” Nano-sized some transition metal complexes of Schiff base ligand based on 1-aminoquinolin-2(1H)-one” . Journal of Molecular Structure (2020), 1206, 127704.
37. Al-Mohaimeed, Amal M.; Al-Farraj, Eida S.; Al- Onazi, Wedad A.; Alothman, Asma A.; **Almarhoon, Zainab M.** “Synthesis, characterization, density functional theory, thermal, antimicrobial efficacy, and DNA binding/cleavage studies of Cu(II), Cr(III), Fe(III), Ni(II), Co(II),

Zn(II), and Pt(IV) complexes with a derivative of 2-hydroxyphenoxymethylfuran-5-carbaldehyde”, Journal of the Chinese Chemical Society (Weinheim, Germany) (2020)

38. Alothman, Asma A.; Al-Farraj, Eida S.; Al-Onazi, Wedad A.; **Almarhoon, Zainab M.**; Al-Mohaimeed, Amal M. “Spectral characterization, electrochemical, antimicrobial and cytotoxic studies on new metal(II) complexes containing N₂O₄ donor hexadentate Schiff base ligand”, Arabian Journal of Chemistry (2020), 13(2), 3889-3902.

39. El-Faham, Ayman; Farooq, Muhammad; **Almarhoon, Zainab**; Abd Alhameed, Rakia; Wadaan, Mohammad A. M.; de la Torre, Beatriz G.; Albericio, Fernando. “Di- and tri-substituted s-triazine derivatives: Synthesis, characterization, anticancer activity in human breastcancer cell lines, and developmental toxicity in zebrafish embryos” Bioorganic Chemistry (2020), 94, 103397.

40. Rauf, Abdur; Abu-Izneid, Tareq; Olatunde, Ahmed; Khalil, Anees Ahmed; Alhumaydhi, Fahad A.; Tufail, Tabussam; Shariati, Mohammad Ali; Rebezov, Maksim; Almarhoon, Zainab M.; Mabkhot, Yahia N.; et al COVID-19 pandemic: Epidemiology, etiology,” conventional and non-conventional therapies “, International Journal of Environmental Research and Public Health (2020), 17(21), 8155.

41. Al-Mohaimeed, Amal M.; Al-Farraj, Eida S.; Al-Onazi, Wedad A.; Alothman, Asma A.; **Almarhoon, Zainab M.** “Synthesis, characterization, density functional theory, thermal, antimicrobial efficacy, and DNA binding/cleavage studies of Cu(II), Cr(III), Fe(III), Ni(II), Co(II), Zn(II), and Pt(IV) complexes with a derivative of 2-hydroxyphenoxymethylfuran-5-carbaldehyde”, Journal of the Chinese Chemical Society (Weinheim, Germany) (2020), Ahead of Print.

42. Alhameed, Rakia Abd; **Almarhoon, Zainab**; Sholkamy, Essam N.; Ali Khan, Salman; Ul-Haq, Zaheer; Sharma, Anamika; de la Torre, Beatriz G.; Albericio, Fernando; El-Faham, Ayman . “Novel 4,6-disubstituted s-triazin-2-yl amino acid derivatives as promising antifungal agents”, Journal of Fungi (2020), 6(4), 237.

43. **Almarhoon, Zainab**; Al Rasheed, Hessa H.; El-Faham, Ayman. “Ultrasonically Assisted N-Cyanoacylation and Synthesis of Alkyl(4-(3-cyano-4,6-dimethyl-2-oxopyridin-1(2H)-yl)benzoyl)amino Acid Ester Derivatives”, ACS Omega (2020), 5(47), 30671-30678.

44. Alharthi, Fahad A.; Alghamdi, Abdulaziz Ali; Alothman, Asma A.; **Almarhoon, Zainab M.**; Alsulaiman, Munairah F.; Al-Zaqri, Nabil. “Green synthesis of ZnO nanostructures using *Salvadora persica* leaf extract: applications for photocatalytic degradation of methylene blue dye “, Crystals (2020), 10(6), 441.

45. Rauf, Abdur; Ahmad, Touqeer; Khan, Ajmal; Uddin, Ghias; Ahmad, Bashir; Mabkhot, Yahia Nasser; Bawazeer, Sami; Riaz, Nadia; Malikovna, Bates Kudaibergenova; **Almarhoon, Zainab M.**; et al . "Green synthesis and biomedicinal applications of silver and gold nanoparticles functionalized with methanolic extract of *Mentha longifolia* Artificial Cells", *Nanomedicine, and Biotechnology* (2021), 49(1), 194-203.
46. Asiri, Yahya I.; Muhsinah, Abdullatif Bin; Alsayari, Abdulrhman; Ghabbour, Hazem A.; **Almarhoon, Zainab M.**; Alaizari, Faiz A.; Venkatesan, Kumar; Tasqeeruddin, Syed; Sulthana, Syeda Shaheen; Mabkhot, Yahia N. "Design, synthesis, X-ray analysis, and biological screening of new oxime and enaminone thiazoline-2-thione derivatives", *Journal of Molecular Structure* (2021), 1223, 128977.
47. Azizah M. Malebari, Rakia Abd Alhameed, **Zainab Almarhoon**, Muhammad Farooq, Mohammad A. M. Wadaan, Anamika Sharma, Beatriz G. de la Torre, Fernando Albericio and Ayman El-Faham. " The Antiproliferative and Apoptotic Effect of a Novel Synthesized S-Triazine Dipeptide Series, and Toxicity Screening in Zebrafish Embryos", *MOLECULES*, 2021, 26 (4), 1170
48. Masand, Vijay H.; Patil, Meghshyam K.; El-Sayed, Nahed Nasser E.; Zaki, Magdi E. A.; **Almarhoon, Zainab**; AlHussain, Sami A. "Balanced QSAR analysis to identify the structural requirements of ABBV-075 (Mivebresib) analogues as bromodomain and extraterminal domain (BET) family bromodomain inhibitor", *Journal of Molecular Structure* (2021), 1229, 129597.
49. El-Sayed, Nahed N. E.; Al-Otaibi, Taghreed M.; Alonazi, Mona; Masand, Vijay H.; Barakat, Assem; **Almarhoon, Zainab M.**; Ben Bacha, Abir . "Synthesis and characterization of some new quinoxalin-2(1H)one and 2-methyl-3H-quinazolin-4-one derivatives targeting the onset and progression of CRC with SRA, molecular docking, and ADMET analyses", *Molecules* (2021), 26(11), 3121.
50. Rauf, Abdur; Akram, Muhammad; Semwal, Prabhakar; Mujawah, Adil A. H.; Muhammad, Naveed; Riaz, Zerfishan; Munir, Naveed; Piotrovsky, Dmitry; Vdovina, Irina; Bouyahya, Abdelhakim; Adetunji, Charles Oluwaseun; Shariati, Mohammad Ali; **Almarhoon, Zainab M.**; Mabkhot, Yahia N.; Khan, Haroon "Antispasmodic potential of medicinal plants: a comprehensive review", *Oxidative Medicine and Cellular Longevity* (2021), 4889719.
51. Asgharian, Parina; Tazekand, Abbas Pirpour; Soofiyan, Saiedeh Razi; Hosseini, Kamran; Martorell, Miquel; Tarhriz, Vahideh; Ahangari, Hossein; Cruz-Martins, Natalia; Sharifi-Rad, Javad; **Almarhoon, Zainab M.**; et al "Quercetin impact in pancreatic cancer: an

overview on its therapeutic effects”, *Oxidative Medicine and Cellular Longevity* (2021), 4393266.

52. Ullah, Zahid; Talib, Muhammad Afnan; Rashid, Abdur; Ghani, Junaid; Shahab, Asfandiyar; Irfan, Muhammad; Rauf, Abdur; Bawazeer, Sami; **Almarhoon, Zainab M.**; Mabkhot, Yahia N. “Hydrogeochemical Investigation of Elevated Arsenic Based on Entropy Modeling, in the Aquifers of District Sanghar, Sindh”, *Pakistan Water* (Basel, Switzerland) (2021), 13(23), 3477.

53. Ali, Maroof; Hussain, Hidayat; Hussain, Amjad; Rauf, Abdur; Hussain, Wahid; Ullah, Manzoor; Abbas, Safdar; AlAwthan, Yahya S.; Bahattab, Omar; Khan, Muhammad; **Almarhoon, Zainab M.**; et al “Hepatoprotective screening of *Seriphidium kurramense* (Qazilb) YR Ling”, *BioMed Research International* (2021), 9026731.

54. **Almarhoon, Zainab M.**; Al-Zaben, Maha I.; Ben Bacha, Abir; Haukka, Matti; El-Faham, Ayman; Soliman, Saied M. “Synthesis, X-ray Structure, Conformational Analysis, and DFT Studies of a Giant s-Triazine bis-Schiff Base”, *Crystals* (2021), 11(11), 1418.

55. Alsayari, Abdulrhman; Muhsinah, Abdullatif Bin; Asiri, Yahya I.; Al-aizari, Faiz A.; Kheder, Nabila A.; **Almarhoon, Zainab M.**; Ghabbour, Hazem A.; Mabkhot, Yahia N. “Synthesis, Characterization, and Biological Evaluation of Some Novel Pyrazolo[5,1-b]thiazole Derivatives as Potential Antimicrobial and Anticancer Agents”, *Molecules* (2021), 26(17), 5383.

56. Tighadouini, Said; Roby, Othmane; Radi, Smaail; Lakbaibi, Zouhair; Saddik, Rafik; Mabkhot, Yahia N.; **Almarhoon, Zainab M.**; Garcia, Yann . “A Highly Efficient Environmental-Friendly Adsorbent Based on Schiff Base for Removal of Cu(II) from Aqueous Solutions: A Combined Experimental and Theoretical Study”, *Molecules* (2021), 26(17), 5164.

57. Ul Haq, Zia; Tahir, Kamran; Aazam, Elham S.; **Almarhoon, Zainab M.**; Al-Kahtani, Abdullah A.; Hussain, Ali Athar; Nazir, Sadia; Khan, Afaq Ullah; Subhan, Abdus; Ur Rehman, Khalil . “Surfactants assisted SiO₂-Cu@Fe₂O₃ nanofibers: Ultra efficient photocatalyst for photodegradation of organic compounds and transesterification of waste edible oil to biodiesel”, *Environmental Technology & Innovation* (2021), 23, 101694.

58. Tighadouini Said; Roby Othmane; Hammoudan Imad; Saddik Rafik; Radi Smaail; Garcia Yann; **Almarhoon Zainab M.**; Mabkhot Yahia N . “Kinetics, thermodynamics, equilibrium, surface modelling, and atomic absorption analysis of selective Cu(ii) removal from aqueous solutions and rivers water using silica-2-(pyridin-2-ylmethoxy)ethan-1-ol hybrid material”, *RSC advances* (2021), 12(1), 611-625

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60. Painuli S; Quispe C; Herrera-Bravo J; Semwal P; Martorell M; **Almarhoon ZM**; Seilkhan A; Ydyrys A; Rad JS; Alshehri MM; Daştan SD, Taheri Y, Calina D, Cho WC. "Nutraceutical Profiling, Bioactive Composition, and Biological Applications of *Lepidium sativum* L.", Oxid Med Cell Longev. (2022) Jan 19;2022:2910411. doi: 10.1155/2022/2910411. PMID: 35096265; PMCID: PMC8791756.
61. Shah ZA, Mujawah AAH, Ullah I, Rauf A, Rashid U, Khalil AA, Shah SMM, Pervaiz A, Shaheen F, Al-Awthan YS, Qureshi MN, Al-Duais MA, Bahattab O, **Almarhoon ZM**, Mabkhot YN, Mubarak MS. "Antioxidant and Cytotoxic Activity of a New Ferruginan A from *Olea ferruginea*: In Vitro and In Silico Studies". Oxid Med Cell Longev. (2022), Jan 20;2022:8519250. doi: 10.1155/2022/8519250. PMID: 35096273; PMCID: PMC8794655.
62. **Almarhoon, ZM**; Indumathi, T; Kumar, ER. "Optimized green synthesis of ZnO nanoparticles: evaluation of structural, morphological, vibrational and optical properties", Journal of Materials Science-Materials in Electronics (2022), 33(30), 23659-23672. DOI:10.1007/s10854-022-09125-5
63. El-Sayed, N.N.E.; Zaki, M.E.A.; Al-Hussain, S.A.; Ben Bacha, A.; Berredjem, M.; Masand, V.H.; **Almarhoon, Z.M.**; Omar, H.S. "Synthesis and Evaluation of Some New 4H-Pyran Derivatives as Antioxidant, Antibacterial and Anti-HCT-116 Cells of CRC, with Molecular Docking, Antiproliferative, Apoptotic and ADME Investigations", Pharmaceuticals (2022), 15, 891. <https://doi.org/10.3390/ph15070891>
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Participation in Conferences:

- 2011 Attended the 4th International Chemistry Conference in Saudi Arabia
- 2015 Attended the 2015 Spring Meeting in San Francisco (2015 MRS)
- 2016 Attended the 6th International Chemistry Conference in Saudi Arabia
- 2018 presented the 256th ACS National Meeting in Boston, MA, August 19-23, (poster).
- 2018 Attended the 7th International Chemistry Conference in Saudi Arabia
- 2019 presented the ICCRD 14th International Conference of Chemistry and Its Role in Development in Mansoura-Hurghada, March 25-28, (poster).
- 25th Annual Green Chemistry and Engineering Conference
- International Conference on RECENT ADVANCES IN DRUG DISCOVERY (QSAR Modeling, Molecular Docking, Molecular Simulation) on 15th & 16th December, 2021; Time 10:30 am Onwards.
- 2020 presented the 259th ACS National Meeting & Exposition, Philadelphia, PA, United States, March 22-26, (poster).
- 2020 attend the 24th Annual Green Chemistry & Engineering Virtual Conference, Untying the Knots to Develop a Circular Economy from Waste Plastics Slimming the Waste-Line in Peptide and Oligonucleotide Synthesis
- 2021 presented The International conference on Advanced Materials and Their Applications 2021 (ICAMA 2021), March 7-9, 2022 in the college of Science and Humanities in Alkarje Prince Sattam bin Abdelaziz University, Kingdom of Saudia Arabia. (Poster)
- ACS Spring 2022, Bonding Through Chemistry March 20-24, 2022 San Diego, United State (attended)
- ACS Fall 2022, Sustainability in a Changing World, August 21-25, Chicago, United State . (Poster)
- 1st Gulf Chemistry Association International Conference and Exhibition (GCA-2022), November 15 to 17, 2022, in the Gulf Convention Center in the Gulf Hotel, Manama, Kingdom of Bahrain. (Poster)
- FMF (Future Minerals Forum) 2023, Jan 11-12, Riyadh, Saudi Arabia.
- The International Conference and Exhibition For Science (Ices2023) February 06-08, 2023, Riyadh, Saudi Arabia. (Poster)

- The International Conference and Exhibition for Science (Ices2023) February 06-08, 2023, Riyadh, Saudi Arabia. (organization)
- ACS Spring 2023, Crossroads of Chemistry, March 26 – 30, Indianapolis, IN, United State . (Poster)
- ACS Fall 2023, Harnessing the Power of Data, August 13–17, 2023, United State. (Poster)
- ACS Fall 2024, August 18 - 22, 2024 Denver, Colorado & Hybrid, United State. (Poster)
- ACS Spring 2024, March 17 - 21, 2024 New Orleans, LA, USA (Poster)
- PSCO 2024 Conference, the 7th International Conference on Perovskite Solar Cells and Optoelectronics, September 16 – 19, 2024, Perugia, Italy. (Poster)
- 19th ICIS Middle Eastern Base Oils and Lubricants Conference 2024, October 8-9, 2024, Riyadh, Saudi Arabia. (Attended)

Workshop

- Workshop “How to Use Mendeley Program for References Creation & Research Paper Management” Prince Sultan University, Saudi Arabia, 2017
- Workshop “Safety in Science Laboratories Chemical & Fire Safety” King Saud University, Saudi Arabia, 2017
- “Drawing Chemical Compound” King Saud University, Saudi Arabia, 2018
- Welcoming of the 149 high school (Organizing the event) 2018
- Activity Chemistry Hospital (Organizing the event) 2018
- Organizing and Participating in Young Researchers Workshop 2018
- Organizing and Participating in Calorimetry and Thermal Analysis 2018
- Organizing the summer training course of Gas Chromatography- mass spectroscopy (GC/MS), Liquid Chromatography- mass spectroscopy (HPLC/MS), Inductive Couple Plasma - mass spectroscopy (ICP/MS), Atomic Absorption Spectrometer (AAS) 2018
- Organizing and Participating in the 2018 ERG Annual Workshop on Electrochemistry
- Organizing the Activity of Saudi Chemical society 2018
- Organizing the “Safety in Laboratories” King Saud University, Saudi Arabia, 2019

- Organizing the Activity of Saudi Chemical society 2019
- Organizing and Participating in Calorimetry and Thermal Analysis 2019
- Proctor for ETS-GRE on 14th September and 26th October 2019
- Organizing and Participating in Making Soap workshop on 27th October 2019
- Organizing and Participating in Nuclear Magnetic Resonance Spectroscopy workshop on 29th October 2019
- Organizing the activity Jaber Ibn Hayan on 31th October and 1st December 2019
- Organizing and participating in “Explanation heterocyclic compounds using nuclear magnetic resonance technology” workshop on 31th October 2022
- Organizing and participating in “Nuclear Magnetic Resonance Spectroscopy and their Applications” workshop on 26th October 2023
- Organizing and Participating in “Nuclear Magnetic Resonance Spectroscopy and their Applications” workshop on 27th October 2024
- Organizing the activity Illusion of Chemistry on 30th October 2024

Scientific Science

membership in the Materials Research Society

membership in the American Chemical Society

membership in Saudi Chemical Society

Training courses

The number more than 20 course from Deanship of Skills Development in King Saud University.