

Curriculum Vitae (CV)

1. Personal data and contact information

Name: Mahmood Mohammed Saeed Abdullah

Date of Birth: 02 February 1981

Nationality: Yemeni

Marital Status: Married

Current Position: Associate professor, Department of Chemistry, Faculty of Science, King Saud University

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2. Summary of Achievements

Associate Professor of Chemistry with over 15 years of academic, research, and industrial experience. Authored an academic book on surfactants published by King Saud University Press, published more than **120** scientific research papers, and contributed to **six** U.S. patents in the areas of oil spill remediation, enhanced oil recovery, nanomaterials, and corrosion inhibition. Actively involved in applied research, technology development, and international scientific collaboration, with strong contributions supporting the research and innovation objectives of King Saud University.

3. Academic Qualification

- **Ph.D. in Organic Chemistry**, King Saud University, Riyadh, Saudi Arabia, 2019
Dissertation: *Synthesis of Some Polymeric Ionic Liquids as New Effective Surfactants and Their Applications in Petroleum Industry.*
- **M.Sc. in Chemistry**, King Saud University, Riyadh, Saudi Arabia, 2013

Thesis: *Use of Extracts of Some Local Plants as Green Corrosion Inhibitors for Mild Steel.*

- **B.Sc. in Chemistry**, Taiz University, Yemen, 2005

Grade: Very Good.

4. Employment History:

- **Associate Professor**, Department of Chemistry, Faculty of Science, King Saud University, Riyadh, Saudi Arabia (2020–Present)
- **Part-time Researcher**, Department of Chemistry, Faculty of Science, King Saud University (2010–2018)
- **Teaching Assistant**, Department of Chemistry, Faculty of Applied Science, Taiz University, Yemen (2008–2009)
- **Quality Control Chemist**, Yemen Company for Ghee and Soap Industry, Taiz, Yemen (2007–2008)

5. Training courses: -

- **Determination of Thyroid Hormone Concentrations Using Radiation Techniques**,
Sudan Atomic Energy Commission, Khartoum, Sudan
(17 July – 12 August 2004)
- **Quality Window Program for Data Processing**,
Yemen Company for Ghee and Soap Industry, Taiz, Yemen
(08 – 11 January 2008)
- **Intensive English Language Course (Advanced Level)**,
Language Center, Taiz University, Taiz, Yemen
(16 July – 10 August 2008)
- **English Language Preparation Course for TOEFL Test**,
Language Center, Taiz University, Taiz, Yemen
(20 March – 11 August 2009)

6. Teaching Experience: -

- **Part-time Lecturer**, Department of Chemistry, Faculty of Education, Taiz University (2006–2008)
- **Part-time Lecturer**, Department of Pharmacology, Al-Hikmah University (2007–2009)

- **Lecturer**, Department of Chemistry, Faculty of Applied Science, Taiz University (2008–2009)

7. Language skills: -

Arabic: Native

English: Very Good (Academic IELTS: 5.5)

8. Research Interests: -

- Ionic Liquids
- Poly (Ionic Liquids)
- Surfactants
- Demulsification
- Enhanced Oil Recovery
- Oil Spill Remediation
- Natural products
- Corrosion

9. Patents

1. **Mahmood M. S. Abdullah**, Ayman M. Atta, Hamad A. al-lohedan, Hamad Zaid Alkathlan, Merajuddin Khan and A. O. Ezzat, Biosynthesised Magnetic Metal Nanoparticles for Oil Spill Remediation, U.S. patent 9901903 B1, 2018.
2. Ayman M. Atta, **Mahmood M. S. Abdullah**, Hamad A. al-lohedan, Composition for enhanced oil recovery, U.S. patent 9850420B1, 2017.
3. Ayman M. Atta, Hamad A. Al-lohedan, Abdelrahman O. Ezzat, and **Mahmood M. S. Abdullah**, Synthesis of bimetallic oxide nanocomposites using poly (ionic liquid), U.S. patent 9850389 B1, 2017.
4. Zaid Alkathlan, Merajuddin Khan, **Mahmood M. S. Abdullah**, Abdullah Mohammed Al-mayouf, Method of Protecting Metal from Corrosion Using Plant Derived Anti-Corrosion Agent,

- U.S. patent 9988726 B1, 2018.
5. Ayman M. Atta, **Mahmood M. S. Abdullah**, Hamad A. al-lohedan, Hydrophobic nanoparticle compositions for crude oil collection, U.S. patent 10131556 B1, 2018.
 6. Ayman M. Atta, **Mahmood M. S. Abdullah**, Hamad A. al-lohedan, Abdelrahman O. Ezzat, Mohamed Hasan Wahby, Modification of sand with superhydrophobic silica/wax nanoparticles, U.S. 10202548 B1, 2019.

10. Books and Chapters

1. Mahmood MS Abdullah, and Hamad A. Al-Lohedan, Surfactants and Their Industrial Applications, Authored book in Arabic, King Saud University Press, 2026.
2. Mahmood M. S. Abdullah and Hamad A. Al-Lohedan, Nanomaterials in the Petroleum Industry. In: Handbook of Nanomaterials, Vol. 1, pp. 617–648, Elsevier, 2024.

<https://doi.org/10.1016/B978-0-323-95511-9.00003-2>

11. Publications: -

1. Hamad Zaid Alkhathlan, Merajjudin Khan, **Mahmood Mohammed Saeed Abdullah**, Abdullah Mohammed Al-Mayouf, Ahmed Amine Mousa, Zeid Abdullah Al-Othman, Launaea nudiculis as a Source of New and Efficient Green Corrosion Inhibitor for Mild Steel in Acidic Medium: Comparative Study of Two Solvent Extracts, International Journal of Electrochemical Science 9 (2014) 870 – 889.
2. Ayman M. Atta, Gamal A. El-Mahdy, Hamad A. Allohedan, **Mahmood M. S. Abdullah**, Synthesis and Application of Poly Ionic Liquid-Based on 2-Acrylamido-2-methyl Propane Sulfonic Acid as Corrosion Protective Film of Steel, International Journal of Electrochemical Science 10 (2015) 6106 – 6119.
3. H. Z. Alkhathlan, M. Khan, **M. M. S. Abdullah**, A. M. AlMayouf, A. Yacine Badjah-Hadj-Ahmed, Z. A. AlOthman and A. A. Mousa, Anticorrosive assay-guided isolation of active phytoconstituents from Anthemis pseudocotula extracts and a detailed study of their effects on the corrosion of mild steel in acidic media, RSC Advances 5 (2015) 54283 – 5492.

<https://doi.org/10.1039/C5RA09154C>

4. Ayman M. Atta, Gamal A. El-Mahdy, Hamad A. Allohedan, **Mahmood M. S. Abdullah**, Poly (ionic liquid) Based on Modified Ionic Polyacrylamide for Inhibition Steel Corrosion in Acid Solution, *International Journal of Electrochemical Science* 10 (2015) 10389 – 10401.
[https://doi.org/10.1016/S1452-3981\(23\)11266-1](https://doi.org/10.1016/S1452-3981(23)11266-1)
5. Merajuddin Khan, **Mahmood Mohammed Saeed Abdullah**, Ahmad Amine Mousa, Hamad Zaid Alkhatlan, Chemical Composition of Vegetative Parts and Flowers Essential Oils of Wild *Anvillea garcinii* Grown in Saudi Arabia, *Records of Natural Products* 10 (2016) 251-256.
<https://shorturl.at/ViDWz>
6. Ayman M. Atta, Hamad A. Al-Lohedan, **Mahmood M.S. Abdullah**, Shymaa M. ElSaeed, Application of new amphiphilic ionic liquid based on ethoxylated octadecylammonium tosylate as demulsifier and petroleum crude oil spill dispersant, *Journal of Industrial and Engineering Chemistry* 23 (2016)122-130.
<https://doi.org/10.1016/j.jiec.2015.09.028>
7. **Mahmood M. S. Abdullah**, Hamad A. Allohedan, Ayman M. Atta, Synthesis and application of amphiphilic ionic liquid based on acrylate copolymers as demulsifier and oil spill dispersant, *Journal of Molecular Liquids* 219 (2016) 54–62.
<https://doi.org/10.1016/j.molliq.2016.03.011>
8. Ayman M. Atta, Hamad A. Al-Lohedan, **Mahmood M.S. Abdullah**, Dipoles poly(ionic liquids) based on 2-acrylamido-2-methylpropane sulfonic acid-co-hydroxyethyl methacrylate for demulsification of crude oil water emulsions, *Journal of Molecular Liquids* 222 (2016) 680–690.
<https://doi.org/10.1016/j.molliq.2016.07.114>
9. **Mahmood M. S. Abdullah**, Hamad A. Allohedan, Ayman M. Atta, Novel magnetic iron oxide nanoparticles coated with sulfonated asphaltene as crude oil spill collectors, *RSC Advances* 6 (2016) 59242– 59249.
<https://doi.org/10.1039/C6RA09651D>
10. **Mahmood M.S. Abdullah**, Abdulrahman A. AlQuraishi, Hamad A. Allohedan, Abdullah O. AlMansour, Ayman M. Atta, Synthesis of novel water soluble poly (ionic liquids) based on quaternary ammonium acrylamidomethyl propane sulfonate for enhanced oil recovery, *Journal of Molecular Liquids* 233 (2017) 508–516.
<https://doi.org/10.1016/j.molliq.2017.02.113>

11. Ayman M. Atta, Abdelrahman O. Ezzat, **Mahmood M. Abdullah**, and Ahmed I. Hashem, Effect of different families of Hydrophobic anions of Imadazolium Ionic Liquids on Asphaltene Dispersants in Heavy Crude Oil, *Energy Fuels* 31 (2017) 8045–8053.
<https://doi.org/10.1021/acs.energyfuels.7b01167>
12. Abdelrhman O. Ezzat, Ayman M. Atta, Hamad A. Allohedan, **Mahmood M.S. Abdullah**, and Ahmed I. Hashem, Synthesis and Application of Poly(ionic liquid) Based on Cardanol as Demulsifier for Heavy Crude Oil Water Emulsions, *Energy Fuels* 32 (2018) 214 – 225.
<https://doi.org/10.1021/acs.energyfuels.7b02955>
13. Ayman M. Atta, **Mahmood M.S. Abdullah**, Hamad A. Al-Lohedan, Abdelrahman O. Ezzat, Demulsification of heavy crude oil using new nonionic cardanol surfactants, *Journal of Molecular Liquids* 252 (2018) 311–320.
<https://doi.org/10.1016/j.molliq.2017.12.154>
14. P. Iyyappa Rajan, J. Judith Vijaya, S. K. Jesudoss, K. Kaviyarasu³, Seung-Cheol Lee, L. John Kennedy, R. Jothiramalingam, Hamad A. Al-Lohedan and **Mahmood M.S. Abdullah**, Investigation on preferably oriented abnormal growth of CdSe nanorods along (0002) plane synthesized by henna leaf extract mediated green synthesis, *Royal Society Open Science* 5 (2018) 171430
<https://doi.org/10.1098/rsos.180819>
15. Ayman M. Atta, **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, and Amany K. Gaffer, Synthesis and application of amphiphilic poly(ionic liquid) dendron from cashew nut shell oil as a green oilfield chemical for heavy petroleum crude oil emulsion, *Energy Fuels*, 32 (2018) 4873–4884.
<https://doi.org/10.1021/acs.energyfuels.8b00165>
16. Ayman M. Atta, Ayman El-Faham, Hamad A. Al-Lohedan, Zeid A. AL Othman, **Mahmood M.S. Abdullah**, Abdelrahman O. Ezzat, Modified triazine decorated with Fe₃O₄ and Ag/Ag₂O nanoparticles for self-healing of steel epoxy coatings in seawater, *Progress in Organic Coatings* 121 (2018) 247–262.
<https://doi.org/10.1016/j.porgcoat.2018.04.011>
17. **Mahmood M. S. Abdullah**, Ayman M. Atta, Hamad A. Allohedan, Hamad Z. Alkhatlan, M. Khan, Abdelrahman O. Ezzat, Green synthesis of hydrophobic magnetite nanoparticles coated with plant extract and their application as petroleum oil spill collectors, *Nanomaterials* 8 (2018)

<https://doi.org/10.3390/nano8100855>

18. Ayman M. Atta, Nermen H. Mohamed, Merit Rostom, Hamad A. Al-Lohedan, **Mahmood M.S. Abdullah**, New hydrophobic silica nanoparticles capped with petroleum paraffin wax embedded in epoxy networks as multifunctional steel epoxy coatings, *Progress in Organic Coatings* 128 (2019) 99-111.
<https://doi.org/10.1016/j.porgcoat.2018.12.018>
19. Mohd. Sajid Ali, Hamad A. Al-Lohedan, Mohammad Tariq, Mohammad Abul Farah, Mohammad Altaf, S.M. Wabaidur, S.M. Shakeel Iqbal, Sartaj Tabassum, **Mahmood M. S. Abdullah**, Modulation of amyloid fibril formation of plasma protein by saffron constituent “safranal”: Spectroscopic and imaging analyses, *International Journal of Biological Macromolecules*, 127(2019) 529-535.
<https://doi.org/10.1016/j.ijbiomac.2019.01.052>
20. Ayman M. Atta, **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Nermen H. Mohamed, Novel Superhydrophobic Sand and Polyurethane Sponge Coated with Silica/Modified Asphaltene Nanoparticles for Rapid Oil Spill Cleanup, *Nanomaterials* 9 (2019) 1877; doi:10.3390/nano9020187
<https://doi.org/10.3390/nano9020187>
21. Ayman M. Atta, **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Nermen H. Mohamed, Coating of Sand with New Hydrophobic and Superhydrophobic Silica/Paraffin Waxes Nanocapsules for Desert Water Storage and Transportation, *Coatings*, 9 (2019) 124
<https://doi.org/10.3390/coatings9020124>
22. Ayman M. Atta, Amany K. Gafer, Hamad A. Al-Lohedan, **Mahmood M. S. Abdullah**, and Abdelrahman O. Ezzat, Preparation of Magnetite and Silver Poly (2-Acrylamido-2-methyl propane sulfonic acid -co-acrylamide) Nanocomposites for Adsorption and Catalytic Degradation of Methylene Blue Water Pollutant, *International polymer*, 68 (2019) 1164–1177.
<https://doi.org/10.1002/pi.5809>
23. Mohd S. Ali, Hamad A. Al-Lohedan, **Mahmood M. S. Abdullah**, Zeenat Afsan, Sartaj Tabassum, Catalytic induced Morphological transformation of Porous ZnO to ZnO Nanorods by Sn(IV) and their effect on Photocatalytic reduction of Methylene Blue and DFT calculations, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 220 (2019) 117101.
<https://doi.org/10.1016/j.saa.2019.05.006>

24. **Mahmood M. S. Abdullah**, Ayman M. Atta, Hamad A. Al-Lohedan, Hamad Z. Alkhathlan, M. Khan, Abdelrahman O. Ezzat, Synthesis of Green Recyclable Magnetic Iron Oxide Nanomaterials Coated by Hydrophobic Plant Extracts for Efficient Collection of Oil Spills, *Nanomaterials* 2019, 9, 1505; <https://doi.org/10.3390/nano9101505>
25. Ayman M. Atta, Amany K. Gafer, Hamad A. Al-Lohedan, **Mahmood M. S. Abdullah**, Ahmed M. Tawfeek and Abdelrahman O. Ezzat, Hybrid Ionic Silver and Magnetite Microgels Nanocomposites for Efficient Removal of Methylene Blue, *Molecules* 2019, 24, 3867; <https://doi.org/10.3390/molecules24213867>
26. **Mahmood M. S. Abdullah**, and Hamad A. Al-Lohedan, Demulsification of Arabian Heavy Crude Oil Emulsions Using Novel Amphiphilic Ionic Liquids Based on Glycidyl 4-Nonylphenyl Ether, *Energy Fuels* 2019, 33, 12916–12923 <https://doi.org/10.1021/acs.energyfuels.9b03148>
27. Merajuddin Khan, **Mahmood M. S. Abdullah**, Adeem Mahmood, Abdullah M. Al-Mayouf, Hamad Z. Alkhathlan, Evaluation of *Matricaria aurea* Extracts as Effective Anti-Corrosive Agent for Mild Steel in 1.0 M HCl and Isolation of Their Active Ingredients, *Sustainability* 2019, 11(24), 7174; <https://doi.org/10.3390/su11247174>
28. Ayman M. Atta, Abdelrahman O. Ezzat, Ashraf M. El-Saeed, Mohamed H. Wahby, **Mahmood M. S. Abdallah**, Superhydrophobic organic and inorganic clay nanocomposites for epoxy steel coatings, *Progress in Organic Coatings*, 2020, 140, 105502 <https://doi.org/10.1016/j.porgcoat.2019.105502>
29. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Novel amphiphilic gemini ionic liquids based on consumed polyethylene terephthalate as demulsifiers for Arabian heavy crude oil, *Fuel*, 266 (2020) 117057 <https://doi.org/10.1016/j.fuel.2020.117057>
30. Merajuddin Khan, Mujeeb Khan, **Mahmood M. S. Abdullah**, Lamya H. AlWahaibi, Hamad Z. Alkhathlan, Characterization of Secondary Metabolites of Leaf and Stem Essential Oils of *Achillea fragrantissima* from Central Region of Saudi Arabia, *Arabian Journal of Chemistry*, 13 (2020) 5254- 5261. <https://doi.org/10.1016/j.arabjc.2020.03.004>
31. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Demulsification of water in heavy crude oil emulsion using a new amphiphilic ionic liquid based on the

glycolysis of polyethylene terephthalate waste, Journal of Molecular Liquids, 307 (2020) 112928

<https://doi.org/10.1016/j.molliq.2020.112928>

32. Sartaj Tabassum, Mohammad Usman, Hamad A. Al-Lohedan, **Mahmood M. S. Abdullah**, Mohamed A. Ghanem, Merfat S. Al-Sharif, Mohd Sajid Ali, Synthesis of **Error! Bookmark not defined.** and heterometallic cobalt and zinc nano oxide particles by a calcination process using coordination compounds: Their characterization, DFT calculations and capacitance behavioural study, RSC Advances, 10 (2020) 13126
<https://doi.org/10.1039/D0RA01191F>
33. Fuad Ameen, **Mahmood M. S. Abdullah**, Ali A. Al-Homaidan, Wafa A. Alshehri, Abdullah A. Al-Ghanayem and Abobakr Almansob, Fabrication of silver nanoparticles employing the cyanobacterium *Spirulina platensis* and its bactericidal effect against opportunistic nosocomial pathogens of the respiratory tract, Journal of Molecular Structure, 1217 (2020) 128392
<https://doi.org/10.1016/j.molstruc.2020.128392>
34. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Ayman M. Atta, Fabrication new demulsifiers employing the waste polyethylene terephthalate and their demulsification efficiency for heavy crude oil emulsions, Molecules, 26, 589 (2021).
<https://doi.org/10.3390/molecules26030589>
35. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Synthesis and characterization of tannic acid esters and their performances as asphaltenes dispersants, Journal of Petroleum Science and Engineering 201 (2021) 108389.
<https://doi.org/10.1016/j.petrol.2021.108389>
36. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Noorah A. Faqihi, Efficacy of Curcumin-based amphiphilic ionic liquids towards the demulsification of water-in-heavy crude oil emulsions, Colloids and Surfaces A: Physicochemical and Engineering Aspects 628 (2021) 127320.
<https://doi.org/10.1016/j.colsurfa.2021.127320>
37. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Novel Bio-Based Amphiphilic Ionic Liquids for the Efficient Demulsification of Heavy Crude Oil Emulsions, Molecules 2021, 26, 6119.
<https://doi.org/10.3390/molecules26206119>

38. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Fabrication of Environmental-Friendly Magnetite Nanoparticle Surface Coatings for the Efficient Collection of Oil Spill, *Nanomaterials*, 2021, 11, 3081. <https://doi.org/10.3390/nano11113081>
39. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Alginate-based poly ionic liquids for the efficient demulsification of water in heavy crude oil emulsions, *Fuel* 320(2022)123949
<https://doi.org/10.1016/j.fuel.2022.123949>
40. Noorah A. Faqihi, **Mahmood M.S. Abdullah**, Hamad A. Al-Lohedan, Zainab M. Almarhoon, Faruq Mohammad, Synthesis, characterization, and application of two new ionic liquids for the dehydration of heavy crude oil emulsions, *Journal of Molecular Liquids* 358 (2022) 119202.
<https://doi.org/10.1016/j.molliq.2022.119202>
41. **Mahmood M.S. Abdullah**, Noorah A. Faqihi, Hamad A. Al-Lohedan, Zainab M. Almarhoon, Faruq Mohammad, Fabrication of magnetite nanomaterials employing novel ionic liquids for efficient oil spill cleanup, *Journal of Environmental Management* 316 (2022) 115194
42. **Mahmood M. S. Abdullah**, Abdelrahman O. Ezzat, Hamad A. Al-Lohedan, Ali Aldalbahi, and Ayman M. Atta, New Amphiphilic ionic liquids for the demulsification of water-in-heavy crude oil emulsion, *Molecules* 27 (2022) 3238.
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43. Noorah A. Faqihi, **Mahmood M. S. Abdullah**, Mohd Sajid Ali, Hamad A. Al-Lohedan, and Zainab M. Almarhoon, Functionalized Magnetite Nanoparticles Using Two New Ionic Liquids for Efficient Oil Spill Cleanup, *Journal of Chemistry* 2023 (2023), 148988.
<https://doi.org/10.1155/2023/7148988>
44. **Mahmood M.S. Abdullah**, Hamad A. AL-Lohedan, and Abdelnasser Karami. "Efficient Demulsification of Heavy Crude Oil Emulsions Using Bio-based Amphiphilic Esters." *Chemical Engineering & Technology* 46 (2023) 1726–1735.
<https://doi.org/10.1002/ceat.202200449>
45. **Mahmood M. S. Abdullah**, Mohd Sajid Ali, Hamad A. Al-Lohedan, Oil spill cleanup employing surface modified magnetite nanoparticles using two new polyamines, *Journal of Chemistry* 2023, (2023) 7515345.
<https://doi.org/10.1155/2023/7515345>

46. **Mahmood M. S. Abdullah**, Mohd Sajid Ali, Hamad A. Al-Lohedan, Application of New Ammonium-Based Ionic Liquids for Dehydration of Crude Oil Emulsions, *Journal of Chemistry* 2023 (2023) 8711570.
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47. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Noorah A. Faqihi, Surface-modified magnetite nanoparticles using polyethylene terephthalate waste derivatives for oil spill remediation, *RSC Advances* 13 (2023) 26366-26374.
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48. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Mohd Sajid Ali, Performance of Plastic Waste-Based Polyionic Liquid toward the Dehydration of Crude Oil Emulsions, *Advances in Polymer Technology* 2023 (2023) 3740956.
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49. Amar Al-khawlani, Yanyun Wang, Jiehua Bao, Xiaoli Sheng, **Mahmood M. S. Abdullah**, Yiwei Zhang, and Zhou Yuming, Enhanced catalytic activity and high stability of treated Pt-Ru/zeolite Y catalysts for levulinic acid hydrogenation reaction, *Catalysis Communications* 183 (2023) 106761.
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50. **Mahmood M.S. Abdullah**, Noorah A. Faqihi, Hamad A. Al-Lohedan, Zainab M. Almarhoon, Abdunnasser Mahmoud Karami, Application of new oleate-based ionic liquids for effective breaking of water in oil emulsions, *Fluid Phase Equilibria* 568 (2023) 113737
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51. **Mahmood M.S. Abdullah** and Hamad A. Al-Lohedan, Two new ammonium-based poly(ionic liquid)s for breaking water-in-crude oil emulsions, *Separation Science and Technology* 2023
<https://doi.org/10.1080/01496395.2023.2266563>
52. Patrick Chamula Musungu, Fredrick Orori Kengara, David MK Onger, **Mahmood MS Abdullah**, and Balasubramani Ravindran. "Influence of agricultural activities and seasonality on levels of selected physico-chemical parameters and heavy metals along River Yala in Lake Victoria Basin." *Environmental Monitoring and Assessment* 195, no. 12 (2023): 1467.
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53. Mohammed A. Bajiri, Khaled Alkanad, Gubran Alnaggar, Sujay Shekar GC, Basheer M. Al-Maswari, **Mahmood MS Abdullah**, Amar Al-khawlani, Lokanath NK, and

- Bhojya Naik HS. "Tailoring morphology and structure of 1D/2D isotype g-C₃N₄ for sonophotocatalytic hydrogen evaluation." *Surfaces and Interfaces* 42 (2023): 103511.
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54. Manikandan Natarajan, Thejasree Pasupuleti, **Mahmood MS Abdullah**, Faruq Mohammad, Jayant Giri, Rajkumar Chadge, Neeraj Sunheriya, Chetan Mahatme, Pallavi Giri, and Ahmed A. Soleiman. "Assessment of machining of hastelloy using WEDM by a multi-objective approach." *Sustainability* 15, no. 13 (2023): 10105.
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55. Srijal Kunwar, Arpita Roy, Utsav Bhusal, Amel Gacem, **Mahmood MS Abdullah**, Promila Sharma, Krishna Kumar Yadav et al. "Bio-fabrication of Cu/Ag/Zn nanoparticles and their antioxidant and dye degradation activities." *Catalysts* 13, no. 5 (2023): 891.
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57. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Chemical separation of petroleum crude oil emulsions using two new poly(ionic liquid)s, *Polymers for Advanced Technologies* 35 (2024) e6400. <https://doi.org/10.1002/pat.6400>
58. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Noorah A. Faqihi, Efficiency of novel polyionic liquid toward the chemical separation of petroleum crude oil emulsions, *Journal of Applied Polymer Science* (2024) e55597.
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59. **Mahmood M. S. Abdullah**, Hamad A. Al-Lohedan, Facile fabrication of magnetite nanoparticles with new hydrophobic amides and their application in oil spill remediation, *Environmental Science and Pollution Research* (2024).
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Waste Palm Fiber-Reinforced HDPE Biocomposite: Optimizing Using Response Surface Methodology." *Journal of Natural Fibers* 21, no. 1 (2024): 2421810.

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13. Awards

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