

CURRICULUM VITAE

PERSONAL DATA

Name	Sami Abdul Aziz Al Hussain
Nationality	SAUDI
Position	Professor of Organic Chemistry
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EDUCATION

Year	Academic Degree	Institution
&&&&	Bachelor of Science in Chemistry (B.Sc.)	Chemistry Department, College of Science, King Saud University
1429 (2008)	Master of Science in Chemistry (M.Sc.)	Chemistry Department, College of Science, King Saud University
1436 (2015)	Doctor of Philosophy in Chemistry (Ph.D.)	Chemistry Department, College of Science, King Saud University

WORK EXPERIENCE

Period	Position	Address
Until 1431	Teacher for secondary school students.	&&&&
1431-1432	Demonstrator in the chemistry department	Chemistry Department, College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1432	Vice chairman of the chemistry department	Chemistry Department, College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1432	Lecturer at the chemistry	Chemistry Department, College of Science,

	department,	Imam Mohammad Ibn Saud Islamic University (IMSIU)
1436- 1442	Assistant Professor at the chemistry department	Chemistry Department, College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1442-1448	Associate Professor of Organic Chemistry	Chemistry Department, College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1448- till now	Professor of Organic Chemistry	Chemistry Department, College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1437-1440	Head of chemistry department at the chemistry department	College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1438-1442	Member of the Research Center	College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1440-1441	Vice Dean for Graduate Studies and Scientific Research	College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
1440-1445	Member of the Standing Committee of the Research Projects Financing Program	Imam Mohammad Ibn Saud Islamic University (IMSIU)
1441	Advisor to the Vice Rector for Educational Affairs	Imam Mohammad Ibn Saud Islamic University (IMSIU)
1441-1444	Assistant Vice Rector for Educational Affairs	Imam Mohammad Ibn Saud Islamic University (IMSIU)
1442-1444	Director of Research Center	College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU)
&&&&	Participant and active member in many standing committees and others	Imam Mohammad Ibn Saud Islamic University (IMSIU)

RESEARCH INTERESTS

Main Topics as a representative Research interests:

- Green & Sustainable Chemistry:** Eco-friendly catalysts, ionic liquids, plant extracts, and sustainable synthetic routes.
- Nanomaterials & Nanotechnology:** Metal/metal oxide nanoparticles, MOFs, nanocomposites, electrospun fibers, and their catalytic, environmental, and biomedical uses.
- Medicinal & Pharmaceutical Chemistry:** Drug design, enzyme inhibition, anticancer, antidiabetic, antiviral, and antimicrobial studies, molecular docking, molecular dynamics, QSAR, machine learning, and predictive modeling.
- Environmental Applications:** Water purification, corrosion inhibition, wastewater treatment, dye removal, and environmental risk analysis.

PUBLICATIONS

- (1) Corrosion Inhibition of Mild Steel in Acidic Medium by Magnetite Myrrh Nanocomposite, Ayman M. Atta, Gamal A. El-Mahdy, Hamad A. Al-Lohedan¹ and **Sami A. Al-Hussain**; *Int. J. Electrochem. Sci.*, 9, p.8446 – 8457, **2014**.
- (2) Corrosion Inhibition Of Nanocomposite Based On Acrylamide Copolymers /Magnetite For Steel, A. M. ATTA, G. A. EL-MAHDY, H. A. AL-LOHEDAN, **Sami A. Al-Hussain**, *Digest Journal of Nanomaterials and Biostructures*, 9(2), p. 627 – 639, **2014**.
- (3) Synthesis of Environmentally Friendly Highly Dispersed Magnetite Nanoparticles Based on Rosin Cationic Surfactants as Thin Film Coatings of Steel , Ayman M. Atta, Gamal A. El-Mahdy, Hamad A. Al-Lohedan and **Sami A. Al-Hussain**, *Int. J. Mol. Sci.*, 15, 6974-6989, **2014**. [doi:10.3390/ijms15046974](https://doi.org/10.3390/ijms15046974)
- (4) Synthesis of Stabilized Myrrh-Capped Hydrocolloidal Magnetite Nanoparticles, Ayman M. Atta, Hamad A. Al-Lohedan and **Sami A. Al-Hussain**, *Molecules*, 19, 11263-11278; **2014**, [doi:10.3390/molecules190811263](https://doi.org/10.3390/molecules190811263)
- (5) Application of Eco-friendly Magnetite Nanoparticles Coated with Rosin Amidoxime as Corrosion Inhibitor for Mild Steel in 1 M Hydrochloric Acid Solution, Ayman M. Atta, Gamal A. El-Mahdy, Hamad A. Al-Lohedan and **Sami A. Al-Hussain**, *Int. J. Electrochem. Sci.*, 10, 2621 – 2633, **2015**.
- (6) Functionalization of Magnetite Nanoparticles as Oil Spill Collector, Ayman M. Atta, Hamad A. Al-Lohedan, and **Sami A. Al-Hussain**, *Int. J. Mol. Sci.* 16, 6911-6931; **2015**. [doi:10.3390/ijms16046911](https://doi.org/10.3390/ijms16046911)
- (7) Interaction of human serum albumin with silver nanoparticles functionalized with polyvinylthiol, Mohd. Sajid Ali, Hamad A.Al-Lohedan, Ayman M.Atta, Abdelrahman O.Ezzat, **Sami A.A.Al-Hussain** *Journal of Molecular Liquids*, Vol 204, 248-254, **2015**. doi.org/10.1016/j.molliq.2015.01.032
- (8) A versatile one-pot method for the synthesis of amphiphilic bioactive magnetic rosin coated nanoparticles as oil spill collector, A. M. ATTA, H. A. AL-LOHEDAN , **S. A. AL-HUSSAIN**, *Digest Journal of Nanomaterials and Biostructures* 10 (3),745 – 758, **2015**.
- (9) Characterization of superhydrophobic epoxy coatings embedded by modified calcium carbonate nanoparticles , Ayman M.Atta, Hamad A.Al-Lohedan, Abdelrahman O.Ezzat, **Sami A.Al-Hussain**, *Progress in Organic Coatings*, Volume 101,577-586, **2016**. doi.org/10.1016/j.porgcoat.2016.10.008
- (10) Collection of petroleum crude oil spill pollutants from sea water using high magnetization antimicrobial biocompatible magnetite nanoparticles, A. M. ATTA, H. A. AL-LOHEDAN, **S. A. AL-HUSSAIN**, *Digest Journal of Nanomaterials and Biostructures*, 11(1), p. 185 – 198, **2016**.
- (11) Delivery of ibuprofen by natural macroporous sporopollenin exine capsules extracted from Phoenix dactylifera L., Saad M.Alshehri, Hamad A.Al-Lohedan, Anis Ahmad Chaudhary Eida Al-Farraj, Norah Alhokbany, Zuheir Issa, **Sami**

- Al Hussain**, Tansir Ahamad, *European Journal of Pharmaceutical Sciences*, 88, Pages 158-165, **2016**.
doi.org/10.1016/j.ejps.2016.02.004
- (12) Novel pyrazole derivatives with oxa/thiadiazolyl, pyrazolyl moieties and pyrazolo[4,3-d]-pyrimidine derivatives as potential antimicrobial and anticancer agents , Hend N.Hafez, Abdel-Rhman B.A.El-Gazzar, **Sami A.Al-Hussain**, *Bioorganic & Medicinal Chemistry Letters*, 26 (10), 2428-2433 , **2016**. doi.org/10.1016/j.bmcl.2016.03.117
- (13) One-Pot Microwave Synthesis of Pyrimido[4,5-b]quinoline and its C- and S-Glycosides with Anti-Inflammatory and Anticancer Activities , Hafez, Hend N.; **Al-Hussain, Sami A.**; El-Gazzar, Abdel-Rhman B. A. *Croatica Chemica Acta*, 89 (3), 285-296, **2016**.
- (14) Preparation of magnetite and manganese oxide ionic polymer nanocomposite for adsorption of a textile dye in aqueous solution, A. M. ATTA, H. A. AL-HODAN, **S. A. AL-HUSSAIN**, A. O. EZZAT, A. M. TAWFIK, Y. A. EL-DOSARY, *Digest Journal of Nanomaterials and Biostructures*, 11(3), 909 - 920 , **2016**.
- (15) Removal of organic water pollutant using magnetite nanomaterials embedded with ionic copolymers of 2-acrylamido-2-methylpropane sodium sulfonate cryogels, **Sami A Al-Hussain**, Abdelrhman O Ezzat, Amany K Gaffer, *Polym. Int.* , 67, 166– 177, 2018. DOI: [10.1002/pi.5492](https://doi.org/10.1002/pi.5492)
- (16) New crosslinked poly (ionic liquid) cryogels for fast removal of methylene blue from waste water, Ayman M.Atta , Abdelrahman O.Ezzat, **Sami A. Al-Hussain**, Hamad A.Al-Lohedan, Ahmed M.Tawfeek, Ahmed I.Hashem, *Reactive and Functional Polymers*, 131, 420-429, **2018**. doi.org/10.1016/j.reactfunctpolym.2018.08.019
- (17) In situ preparation of magnetite/cuprous oxide/poly(AMPS/NIPAm) for removal of methylene blue from waste water, Ayman M Atta, ,**Sami A Al-Hussain**, Hamad A Al-Lohedan, Abdelrhman O Ezzat, Ahmed M Tawfeek, *Polym. Int.* 67, 471–480, **2018**. doi.org/10.1002/pi.5530
- (18) Application of New Sodium Vinyl Sulfonate–co-2-Acrylamido-2-methylpropane Sulfonic Acid Sodium Salt-Magnetite Cryogel Nanocomposites for Fast Methylene Blue Removal from Industrial Waste Water, **Sami A. Al-Hussain** , Ayman M. Atta , Hamad A. Al-Lohedan , Abdelrahman O. Ezzat and Ahmed M. Tawfeek, *Nanomaterials* 8 (11), 878; **2018**. <https://doi.org/10.3390/nano8110878>
- (19) Two-Dimensional Hydrogen-Bonded Crystal Structure, Hirshfeld Surface Analysis and Morphology Prediction of a New Polymorph of 1H-Nicotineamidium Chloride Salt, Hela Ferjani, Hammouda Chebbi , Abderrahmen Guesmi, Obaid S. AlRuqi and **Sami A. Al-Hussain**, *Crystals*, 9, 571; **2019**. [doi:10.3390/cryst9110571](https://doi.org/10.3390/cryst9110571)
- (20) Synthesis of Novel Benzodifuranyl; 1,3,5-Triazines;1,3,5-Oxadiazepines; and Thiazolopyrimidines Derived from Visnaginone and Khellinone as Anti-Inflammatory and Analgesic Agents, Ameen Ali Abu-Hashem , **Sami A Al-Hussain** and Magdi E. A. Zaki, *Molecules* 25, 220; **2020**. [doi:10.3390/molecules25010220](https://doi.org/10.3390/molecules25010220) **2020**.
- (21) Discovery of novel indolyl-1,2,4-triazole hybrids as potent vascular endothelial growth factor receptor-2 (VEGFR-2) inhibitors with potential anti-renal cancer activity, **Sami A. Al-Hussain**, Thoraya A. Farghaly, Magdi E.A. Zaki , Hanan G. Abdulwahab , Nadia T. Al-Qurashi , Zeinab A. Muhammad, *Bioorganic Chemistry* ,105, 104330 **2020**.
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- (23) Synthesis, Characterization, and Antimicrobial Evaluation of Some New 1,4-Dihydropyridine Hybrid with 1,3,4-Thiadiazole, Sobhi M. Gomha , Zeinab A. Muhammad , **Sami A. Al-Hussain** , Magdi E. A. Zaki & Hassan M. Abdel-aziz, *Polycyclic Aromatic Compounds*, 42:4, 1697 1709, 2021. [DOI: 10.1080/10406638.2020.1804410](https://doi.org/10.1080/10406638.2020.1804410)
- (24) Synthesis, spectroscopic and molecular docking studies of novel 10-heterylazo-9-anthrone derivatives as potential antimicrobial and anticancer agents, Hemat M. Dardeer, Awatef S. Assran , **Sami A. Al-Hussain** , Arafat Toghan, *Journal of Molecular Structure*, 1226, 129359, 2021. doi.org/10.1016/j.molstruc.2020.129359.
- (25) Balanced QSAR analysis to identify the structural requirements of ABBV-075 (Mivebresib) analogues as bromodomain and extraterminal domain (BET) family bromodomain inhibitor, Vijay H. Masand, Meghshyam K. Patil , Nahed Nasser E. El-Sayed , Magdi E.A. Zaki , Zainab Almarhoon , **Sami A Al-Hussain**, *Journal of Molecular Structure*, 1229, 129597, 2021. doi.org/10.1016/j.molstruc.2020.129597
- (26) Synthesis and Reactions of Perimidines and their Fused Systems, Thoraya A. Farghaly, **Sami A. Al-Hussain**, Zeinab A. Muhammad, Magda A. Abdallah and Magdi E. A. Zaki, *Current Organic Chemistry*, 24 (15),1669 – 1716, 2020 [DOI:10.2174/1385272824999200622113807](https://doi.org/10.2174/1385272824999200622113807)
- (27) Fluorinated hydrazoneyl chlorides as precursors for synthesis of antimicrobial azoles, **Sami A. Al-Hussain**, Fatimah Alshehrei, Magdi E. A. Zaki, Marwa F. Harras, Thoraya A. Farghaly, Zeinab A. Muhammad , *Journal of Heterocyclic Chemistry* 58.2 589-602, 2021 doi.org/10.1002/jhet.4198
- (28) A SIMPLE SYNTHESIS, OF SOME NOVEL BI-THIAZOLES AS ANTI-TUMOR AGENTS, **Sami A. Al-Hussain**, *Egypt. J. Chem.* 64 (3),1363 – 1370, 2021 [doi.10.21608/EJCHEM.2020.49043.3002](https://doi.org/10.21608/EJCHEM.2020.49043.3002).
- (29) QSAR and Pharmacophore Modeling of Nitrogen Heterocycles as Potent Human N-Myristoyltransferase (Hs-NMT) Inhibitors, Magdi E. A. Zaki , **Sami A. Al-Hussain** , Vijay H. Masand, Siddhartha Akasapu and Israa Lewaa , *Molecules*, 26, 1834, 2021. doi.org/10.3390/molecules26071834
- (30) Design, Synthesis and Anticancer Activity of New Polycyclic: Imidazole, Thiazine, Oxathiine, Pyrrolo-Quinoxaline and Thienotriazolopyrimidine Derivatives, Ameen Ali Abu-Hashem , **Sami A. Al-Hussain** and Magdi E. A. Zaki, *Molecules*, 26(7), 2031; 2021. doi.org/10.3390/molecules26072031
- (31) Synthesis of antimicrobial azoloazines and molecular docking for inhibiting COVID-19, Zeinab A. Muhammad, Thoraya A. Farghaly, Ismail Althagafi, **Sami A. Al-Hussain**, Magdi E. A. Zaki, Marwa F. Harras, *Journal of heterocyclic chemistry* 58.6, 2021, : 1286-13012021. doi.org/10.1002/jhet.4257
- (32) Identification of Anti-SARS-CoV-2 Compounds from Food Using QSAR-Based Virtual Screening, Molecular Docking, and Molecular Dynamics Simulation Analysis, Magdi E. A. Zaki , **Sami A. Al-Hussain** , Vijay H. Masand , Siddhartha Akasapu , Sumit O. Bajaj , Nahed N. E. El-Sayed , Arabinda Ghos and Israa Lewaa, *Pharmaceuticals*, 14(4), 357, 2021 ; <https://doi.org/10.3390/ph14040357>

- (33) Mechanistic and Predictive QSAR Analysis of Diverse Molecules to Capture Salient and Hidden Pharmacophores for Anti-Thrombotic Activity, Magdi E. A. Zaki, **Sami A. Al-Hussain**, Vijay H. Masand, Manoj K. Sabnani and Abdul Samad, *Int. J. Mol. Sci.*, 22, 8352, 2021. doi.org/10.3390/ijms22158352
- (34) Quantitative Structure–Activity Relationship Evaluation of MDA-MB-231 Cell Anti-Proliferative Leads, Ajaykumar Gandhi, Vijay Masand, Magdi E. A. Zaki, **Sami A. Al-Hussain**, Anis Ben Ghorbal and Archana Chapolikar, *Molecules*, 26(16), 4795, 2021; doi.org/10.3390/molecules26164795
- (35) QSAR analysis of sodium glucose co–transporter 2 (SGLT2) inhibitors for anti-hyperglycaemic lead development, A. Gandhi, V. Masand, M.E.A. Zaki, **S.A. Al-Hussain**, A. Ben Ghorbal & A. Chapolikar, *SAR and QSAR in Environmental Research*, 32(9), 731-744, 2021 DOI: [10.1080/1062936X.2021.1971295](https://doi.org/10.1080/1062936X.2021.1971295)
- (36) Synthesis and In-silico Simulation of Some New Bis-thiazole Derivatives and Their Preliminary Antimicrobial Profile: Investigation of Hydrazonoyl Chloride Addition to Hydroxy-Functionalized Bis-carbazones. Refaie M. Kassab Sobhi M. Gomha, **Sami A. Al-Hussain**, Ahmed S. Abo Dena, Marwa M. Abdel-Aziz Magdi E. A. Zaki, Zeinab A. Muhammad, *Arabian Journal of Chemistry*, 14 (11), 103396, 2021. doi.org/10.1016/j.arabjch.2021.103396
- (37) Identification of concealed structural alerts using QSTR modeling for Pseudokirchneriella subcapitata, Vijay H. Masand Magdi E. A. Zaki **Sami A. Al-Hussain**, Anis Ben Ghorbal, Siddhartha Akasapu, Israa Lewaa Arabinda Ghosh, Rahul D. Jawarkar, *Aquatic Toxicology*, 239, 105962, 2021. doi.org/10.1016/j.aquatox.2021.105962.
- (38) Design of Promising Green Cation-Exchange-Membranes-Based Sulfonated PVA and Doped with Nano Sulfated Zirconia for Direct Borohydride Fuel Cells, Marwa H. Gouda, Noha A. Ellessawy, **Sami A. Al-Hussain** and Arafat Toghan, *Polymers*, 13(23), 4205, 2021; <https://doi.org/10.3390/polym13234205>
- (39) QSAR Based Virtual screening derived Identification of a Novel Hit as a SARS CoV-229E 3CLpro Inhibitor: GA-MLR QSAR modeling supported by Molecular Docking, Molecular Dynamics Simulation and MMGBSA calculation Approaches, R.D. Jawarkar, Ravindrakumar L. Bakal, Magdi E. A. Zaki, **Sami Al-Hussain**, Arabinda Ghosh, Ajaykumar Gandhi, Nobendu Mukerjee, Abdul Samad Vijay H. Masand Israa Lewaa, *Arabian Journal of Chemistry*, 15 (1), 103499, 2022. doi.org/10.1016/j.arabjch.2021.103499
- (40) Design, Synthesis of New 1,2,4-Triazole/1,3,4-Thiadiazole with Spiroindoline, Imidazo[4,5-b]quinoxaline and Thieno[2,3-d]pyrimidine from Isatin Derivatives as Anticancer Agents, Ameen Ali Abu-Hashem and **Sami A. Al-Hussain**, *Molecules*, 27, 835, 2022. doi.org/10.3390/molecules27030835
- (41) Exploring the Prominent and Concealed Inhibitory Features for Cytoplasmic Isoforms of Hsp90 Using QSAR Analysis, Magdi E. A. Zaki, **Sami A. Al-Hussain**, Syed Nasir Abbas Bukhari, Vijay H. Masand, Mithilesh M. Rathore, Sumer D. Thakur and Vaishali M. Patil, *Pharmaceuticals*, 15, 303, 2022. doi.org/10.3390/ph15030303 2022
- (42) Identification of potent aldose reductase inhibitors as antidiabetic (Anti-hyperglycemic) agents using QSAR based virtual Screening, molecular Docking, MD simulation and MMGBSA approaches, Ravindra L. Bakal, Rahul D. Jawarkar J.V. Manwar, Minal S. Jaiswal, Arabinda Ghosh, Ajaykumar Gandhi, Magdi E. A. Zaki, **Sami Al-Hussain** Abdul Samad, Vijay H. Masand g Nobendu Mukerjeehi Syed Nasir Abbas

Bukhari, Praveen Sharma, Israa Lewaal, Saudi Pharmaceutical Journal, 2022, Volume 30, Issue 6, June 2022, Pages 693-710. doi.org/10.1016/j.jsps.2022.04.003

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