

## قائمة بالأبحاث قيد الإنجاز والمنجزة خلال العام الحالي بقسم الكيمياء

### List of research in progress and completed during the current year at the Department of Chemistry

1. Sameh Ramadan Elgogary (2020) Synthesis, Photooxygenation and DNA Studies of Novel Fused Furo, Dioxolo, and Dioxino Derivatives of Coumarin. *Chemistry Select* 5: 10292-10297. <https://doi.org/10.1002/slct.202002442>.
2. Sameh R. Elgogary ,Rizk E. Khidre & Emad M. El-Telbani (2020) Regioselective synthesis and evaluation of novel sulfonamide 1,2,3-triazole derivatives as antitumor agents. *Journal of the Iranian Chemical Society* 17:765–776. <https://doi.org/10.1007/s13738-019-01796-y>
3. U. A. Soliman (2020) Computational Studies, NMR And IR Spectral Analysis, Normal Coordinate Analysis, and Thermodynamic Properties of 2-Fluoro-4-Pyridineboronic Acid. *Journal of Structural Chemistry* 61(3):400-418. DOI:[10.1134/S0022476620030075](https://doi.org/10.1134/S0022476620030075).
4. Elsayed T.Helmy, Elsayed M.Abouellef, Usama A.Soliman and Jia HongPan (2021) Novel green synthesis of S-doped TiO<sub>2</sub> nanoparticles using Malva parviflora plant extract and their photocatalytic, antimicrobial and antioxidant activities under sunlight illumination. *Chemosphere* 271, 129524. <https://doi.org/10.1016/j.chemosphere.2020.129524>.
5. Emad M.Atta, Khaled H.Hegab, Ahmed A.M.Abdelgawad and Abdelghany A.Youssef (2019) Synthesis, characterization and cytotoxic activity of naturally isolated naringin-metal complexes. *Saudi Pharmaceutical Journal* 27: 4,584-592. <https://doi.org/10.1016/j.jsps.2019.02.006>.
6. A Ehab Ibrahim, H Hashem, M Elhenawee and H Saleh (2020). Monolithic and core-shell particles stationary phase morphologies in protein analysis; peptide mapping of erythropoietin hormone and determination of carbetocin. *Ann Pharm Fr.* 78:3:206-216. doi: [10.1016/j.pharma.2020.01.008](https://doi.org/10.1016/j.pharma.2020.01.008).
7. Heba M. El-Sayed & Hisham Hashem (2020) Quality by Design Strategy for Simultaneous HPLC Determination of Bromhexine HCl and Its Metabolite

Ambroxol HCl in Dosage Forms and Plasma. *Chromatographia* 83, 1075–1085. <https://doi.org/10.1007/s10337-020-03924-w>.

8. Mohammed D. Y. Oteef & Mustafa S. Elhassan (2020) Plastic toys and child care articles as a source of children exposure to phthalates and other plasticisers in Saudi Arabia. *International Journal of Environmental Analytical Chemistry*. <https://doi.org/10.1080/03067319.2020.1784407>.
9. Zakaulislam Mujahid, Mohammed D Y Oteef, Xin Tu and Julian Schulze (2021) Deposition of oxygenated hydrocarbons in a packed-bed plasma reactor during the oxidation of toluene: influence of applied voltage. *J. Phys. D: Appl. Phys.* 54 194007.
10. Mervat F. Zayed, Wael H. Eisab, Abd ElHameed M. Hosam and Amira M. Abou Zeid (2020) Spectroscopic investigation of chitosan-supported Cu<sub>2</sub>O/CuO nanocomposite; a separable catalyst for water-pollutants degradation. *Journal of Alloys and Compounds* 835: 15, 155306. <https://doi.org/10.1016/j.jallcom.2020.155306>.
11. Iyyakkannu Sivanesan, Manikandan Muthu, Judy Gopal, Nazim Hasan, Syed Kashif Ali, Juhyun Shin, and Jae-Wook Oh (2021) Nanochitosan: Commemorating the Metamorphosis of an ExoSkeletal Waste to a Versatile Nutraceutical. *Nanomaterials (Basel)*. 11(3): 821. doi: [10.3390/nano11030821](https://doi.org/10.3390/nano11030821).
12. Abd El-Rahman, Magda, Yassien, Khaled M., Yassene, Ali A.M. (2019) Effect of gamma irradiation on the optical properties of epoxy resin thin films. *Optik - International Journal for Light and Electron Optics* 183(6). DOI: [10.1016/j.ijleo.2018.12.182](https://doi.org/10.1016/j.ijleo.2018.12.182).
13. Ali. A. M. Yassene, Mohammed R. Ismail, Mahmoud S. Afify (2020) Physicomechanical properties of irradiated SBR latex polymer-modified cement mortar composites. *Journal of Vinyl and Additive Technology* 26:2, 144-154. <https://doi.org/10.1002/vnl.21727>.
14. Yasser S. Mostafa, Sulaiman A. Alrumman, Saad A. Alamri, Kholod A. Otaif, Mohamed S. Mostafa & Abdulkhaleg M. Alfaify (2020) Bioplastic (poly-3-hydroxybutyrate) production by the marine bacterium *Pseudodonghicola xiamenensis* through date syrup valorization and structural assessment of

the biopolymer. Scientific Reports 10: 8815.  
<https://doi.org/10.1038/s41598-020-65858-5>.

15. Yasser S Mostafa , Sulaiman A Alrumman , Kholod A Otaif , Saad A Alamri , Mohamed S Mostafa, Taher Sahlabji (2020). Production and Characterization of Bioplastic by Polyhydroxybutyrate Accumulating *Erythrobacter aquimaris* Isolated from Mangrove Rhizosphere. *Molecules* 25(1):179. doi: 10.3390/molecules25010179.
16. Rizk E. Khidre, Tahah A. Ameen, Mounir A. I. Salem (2020) Tetrazoloquinolines: Synthesis, Reactions, and Applications. *Current Organic Chemistry* 24: 4, 2020. DOI: 10.2174/1385272824666200217095341.
17. Hanan A. Mohamed Rizk E. Khidre Benson M. Kariuki Gamal A. El - Hiti (2020) Synthesis of novel heterocycles using 1,2,3 - triazole - 4 - carbohydrazides as precursors. *Journal of Heterocyclic Chemistry* 57:3, 1055. DOI:10.1002/jhet.3840.
18. Rizk E. Khidre, Hanan A. Mohamed, Benson M. Kariuki and Gamal A. El - Hiti (2020) Facile, mild and efficient synthesis of azines using phosphonic dihydrazide. *Phosphorus, Sulfur, and Silicon and the Related Elements* 195: 1. <https://doi.org/10.1080/10426507.2019.1633531>.
19. Rizk E. Khidre, Ibrahim Ali M. Radini, and Daa A. Ibrahim (2019) Synthetic Approaches of Pyrazolyl Quinolines. *Mini-Reviews in Organic Chemistry* 16:4. DOI: 10.2174/1570193X15666180419142511.
20. Rizk E. Khidre and Ibrahim Ali M. Radini (2019) Synthesis and Antimicrobial Activity of Novel Heterocycles Utilizing 3-(1,4-Dioxo-3,4-dihydrophthalazin-2(1H)-yl)-3-oxopropanenitrile as Precursors. *J. Heterocycl. Chem.* 56:3, 850. <https://doi.org/10.1002/jhet.3463>.
21. Daa A. Ibrahim, Ibrahim Ali M. Radini, and Rizk E. Khidre (2019) DESIGN, SYNTHESIS AND BIOLOGICAL ESTIMATION OF INNOVATIVE PYRAZOLES AS ANTICANCER AGENTS TARGETING CDK2. *Acta Poloniae Pharmaceutica* 76(3):453-468. DOI:10.32383/appdr/102651.
22. Rizk E. Khidre, Ibrahim Ali M. Radini, and Daa A. Ibrahim (2019) Design and synthesis of some new thiophene and 1,3,4-thiadiazole based heterocycles.

- Phosphorus, Sulfur, and Silicon and the Related Elements 194: 11.  
<https://doi.org/10.1080/10426507.2019.1598408>.
23. Rizk E. Khidre, Ibrahim Ali M. Radini, Mohamed S. Mostafa and Tahah A. Ameen (2019) Synthetic Applications of 2-diazo-1,3-indanedione. INDIAN JOURNAL OF HETEROCYCLIC CHEMISTRY, 2: 167.0.
24. Rizk E. Khidre, Ibrahim M.A. Radini, Tahah A. Ameen, Ahmed A.M. Abdelgawad (2021) Triazoloquinolines I: Synthetic Methods and Pharmacological Properties of [1,2,3]triazoloquinoline Derivatives. Current Organic Chemistry 25: 8. DOI: [10.2174/1385272825666210202122645](https://doi.org/10.2174/1385272825666210202122645).
25. Mounir A. Salem, Mohamed S. Behalo, Rizk E. Khidre (2021) Recent Trend in the Chemistry of Triazolopyrimidines and their Applications. Mini-Reviews in Organic Chemistry 18: 8. DOI: [10.2174/1570193X18666210203155358](https://doi.org/10.2174/1570193X18666210203155358).
26. Ameen Ali Abu-Hashem (2021) Synthesis of new pyrazoles, oxadiazoles, triazoles, pyrrolotriazines, and pyrrolotriazepines as potential cytotoxic agents. Journal of Heterocyclic Chemistry 58: 3, 805.  
<https://doi.org/10.1002/jhet.4216>.
27. 27. Ameen Ali Abu-Hashem (2021) Synthesis and antimicrobial activity of new 1,2,4-triazole, 1,3,4-oxadiazole, 1,3,4-thiadiazole, thiopyrane, thiazolidinone, and azepine derivatives. Journal of Heterocyclic Chemistry 58: 1, 74. <https://doi.org/10.1002/jhet.4149>.
28. Ameen A. Abu-Hashem, Usama Fathy, Moustafa A. Gouda (2020) Synthesis of 1,2,4-triazolopyridazines, isoxazolofuopyridazines, and tetrazolopyridazines as antimicrobial agents. Journal of Heterocyclic Chemistry 57: 9, 3461. <https://doi.org/10.1002/jhet.4065>.
29. Moustafa. A. Gouda, Ameen A. Abu-Hashem, Mohammed A. Salem, Mohamed H. Helal, Mohammed Al-Ghorbani, Wafaa S. Hamama (2020) Recent progress on coumarin scaffold-based anti-microbial agents (Part III). Journal of Heterocyclic Chemistry 57: 11, 3784.  
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30. Moustafa A. Gouda\*, Ameen Ali Abu-Hashem\*, Hoda Abdel Raouf Hussein, Ahmed S. Aly (2020) Recent Development in the Chemistry of Bicyclic 6+5

Systems, Part II: Chemistry of Triazolopyrimidine Derivatives. Letters in Organic Chemistry 17: 12. DOI: [10.2174/1570178617666200417121205](https://doi.org/10.2174/1570178617666200417121205).

31. Ameen Ali Abu-Hashem\*, Khadiga Mohamed Abu-Zied, Magdi Elsayed AbdelSalam Zaki, Mohamed Fathy El-Shehry, Hanem Mohamed Awad, Mohammed Abdou Khedr (2020) Design, Synthesis, and Anticancer Potential of the Enzyme (PARP-1) Inhibitor with Computational Studies of New Triazole, Thiazolidinone, - Thieno [2, 3-d] Pyrimidinones. Letters in Drug Design Discovery 17: 6. DOI: [10.2174/1570180817666200117114716](https://doi.org/10.2174/1570180817666200117114716).
32. Ameen Ali Abu-Hashem , Sami A Al-Hussain, Magdi E A Zaki (2020) 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. Molecules 5;25(1):220. doi: [10.3390/molecules25010220](https://doi.org/10.3390/molecules25010220).
33. Moustafa A. Gouda\*, Ameen Ali Abu-Hashem\*, Hoda Abdel Raouf Hussein, Ahmed S. Aly (2020) Recent Progress on Fused Thiadiazines: A Literature Review. Polycyclic Aromatic Compounds. <https://doi.org/10.1080/10406638.2020.1825002>.
34. Moustafa A. Gouda, Ameen A. Abu-Hashem, Ahmed A. M. Abdelgawad (2020) Recent progress on the chemistry of thieno[3,2-b]quinoline derivatives (part III). Journal of Heterocyclic Chemistry 58: 4, 908. <https://doi.org/10.1002/jhet.4205>.
35. Ameen A Abu-Hashem, Hoda A R Hussein, Ahmed S Aly (2020) Synthesis and Antimicrobial Activity of Novel 1, 2, 4-Triazolopyrimidofuroquinazolinones from Natural Furochromones (Visnagenone and Khellinone). Medicinal Chemistry 17: 7, 707. DOI: [10.2174/1573406416666200406130047](https://doi.org/10.2174/1573406416666200406130047).
36. Ameen A. Abu-Hashem, Ahmed A. M. Abdelgawad, Moustafa A. Gouda (2020) Vilsmeier-Haack Cyclisation as A Facile Synthetic Route to Thieno [2,3- b] quinolines (Part I). Letters in Organic Chemistry. DOI: [10.2174/1570178617999200711175956](https://doi.org/10.2174/1570178617999200711175956).
37. Ameen A. Abu-Hashem, Magdi E. A. Zaki (2019) Direct Amination and Synthesis of Fused N-Substituted Isothiochromene Derivatives. Journal of Heterocyclic Chemistry 56: 3, 886. <https://doi.org/10.1002/jhet.3466>.

38. Ameen A. Abu-Hashem, Mohamed El-Shazly (2019) Synthesis and Antimicrobial Evaluation of Novel Triazole, Tetrazole, and Spiropyrimidine-Thiadiazole Derivatives. *Polycyclic Aromatic Compounds* 41: 3. <https://doi.org/10.1080/10406638.2019.1598448>.
39. Ashraf H. F. Abd El-Wahab, Mosa H. M. Khfsha, Ali H. H. Abdali, Mohammad Y. M. Al Maliki (2020) Synthesis, Antimicrobial, and Antitumor Activity of Some New Chromene Compounds. *Indian Journal of Heterocyclic Chemistry* 30: 3, 369.
40. Hany M Mohamed, Ashraf H F Abd El-Wahab (2019) Heteroaromatization with 4-Phenyldiazenyl-1-naphthol. Part IV: Synthesis of Some New Heterocyclic Compounds with Potential Biological Activity. *Curr Org Synth* 16: 6:931-938. doi: [10.2174/1570179416666190719101727](https://doi.org/10.2174/1570179416666190719101727).
41. Antika Pranudta, Wantana Klysubun, Medhat Mohamed El-Moselhy, and Surapol Padungthon (2020) Synthesis optimization and X-ray absorption spectroscopy investigation of polymeric anion exchanger supported binary Fe/Mn oxides nanoparticles for enhanced As(III) removal. *Reactive and Functional Polymers* 147, 104441. <https://doi.org/10.1016/j.reactfunctpolym.2019.104441>.
42. SAMY KORANY EL-DESOUKY, AHMED AWAD ABDELGAWAD, ALI MOHAMED EL-HAGRASSI, USAMA WAHID HAWA, and YOUNG-KYOON KIM (2019) CHEMICAL COMPOSITION, CYTOTOXIC AND ANTIOXIDANT ACTIVITIES OF CELOSIA TRIGYNA L. GROWN IN SAUDI ARABIA. *Acta Poloniae Pharmaceutica - Drug Research*, 76: 4, 691. DOI: [10.32383/appdr/105158](https://doi.org/10.32383/appdr/105158).
43. Mardia T. Elsayed, Abeer A. Hassan, Said A. Abdelaal, Mohamed M. Taher, Mohamed khalaf Ahmed, Kamel R. Shoueir (2020) Morphological, antibacterial, and cell attachment of cellulose acetate nanofibers containing modified hydroxyapatite for wound healing utilizations. *Journal of Materials Research and Technology* 9: 6, 13927. <https://doi.org/10.1016/j.jmrt.2020.09.094>.
44. Abeer A Hassan, Hyam A Radwan, Said A Abdelaal, Najlaa S Al-Radadi, M K Ahmed, Kamel R Shoueir, Mayssa Abdel Hady (2021) Polycaprolactone based electrospun matrices loaded with Ag/hydroxyapatite as wound dressings:

Morphology, cell adhesion, and antibacterial activity. *Int J Pharm* 25: 593, 120143. doi: [10.1016/j.ijpharm.2020.120143](https://doi.org/10.1016/j.ijpharm.2020.120143).

45. Hany E. A. Ahmed, Mohammed A. A. El-Nassag, Ahmed H. Hassan, Hany M. Mohamed, Ahmed H. Halawa, Rawda M. Okasha, Saleh Ihmaid, Shima Mohamed Abd El-Gilil, Essam S. A. E. H. Khattab, Ahmed M. Fouda, Ahmed M. El-Agrody, Ateyatallah Aljuhani and Tarek H. Afifie (2019) Developing lipophilic aromatic halogenated fused systems with specific ring orientations, leading to potent anticancer analogs and targeting the c-Src Kinase enzyme. *Journal of Molecular Structure* 1186: 15, 212. <https://doi.org/10.1016/j.molstruc.2019.03.012>.
46. Fawzia F Alblewi, Rawda M Okasha, Zainab M Hritani, Hany M Mohamed, Mohammed A A El-Nassag, Ahmed H Halawa, Ahmed Mora, Ahmed M Fouda, Mohammed A Assiri, Al-Anood M Al-Dies, Tarek H Afifi, and Ahmed M El-Agrody (2019) Antiproliferative effect, cell cycle arrest and apoptosis generation of novel synthesized anticancer heterocyclic derivatives based 4H-benzo[h]chromene. *Bioorg Chem* 87, 560. doi: [10.1016/j.bioorg.2019.03.059](https://doi.org/10.1016/j.bioorg.2019.03.059).
47. Rita M. Borik and Mohammed A. Hussein (2021) Synthesis, Molecular Docking, Biological Potentials and Structure Activity Relationship of New Quinazoline and Quinazoline-4-one Derivatives. *Asian J. Chem.* 33:2, 423-438. <https://doi.org/10.14233/ajchem.2021.23036>.
48. Rita M. Borik (2020) One-Pot Synthesis of Novel Furochromone and Oxazocine Derivatives as Promising Antitumor Agents with Their Molecular Docking Studies. *Journal of chemistry* 2020. <https://doi.org/10.1155/2020/1474050>.
49. Masoom Raza SIDDIQUI, Afnan Ali Hussain HAKAMI, Saikh Mohammad WABAIIDUR, Zeid Abdullah ALOTHMAN, Moonis Ali KHAN, Fohad Mabood HUSAIN (2020). UPLC-MS/MS and Dushman reaction based spectrophotometric method for determination of Ceftazidime, an antibiotic, in medicinal formulation. *Food Science and Technology* 2020. <https://doi.org/10.1590/fst.07020>.

50. Afnan Ali Hussain Hakami, Saikh Mohammad Wabaidur, Moonis Ali Khan, Zeid Abdullah Allothman, Mohd. Rafatullah and Masoom Raza Siddiqui (2020) Development of Ultra-Performance Liquid Chromatography–Mass Spectrometry Method for Simultaneous Determination of Three Cationic Dyes in Environmental Samples. *Molecules* 25: 19, 4564. <https://doi.org/10.3390/molecules25194564>.
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52. Anwar Ali, Nizamul Haque Ansari, Ummer Farooq, Shadma Tasneem and Firdosa Nabi (2019) Study of Intermolecular Interactions of CTAB with Amino Acids at Different Temperatures: A Multi Technique Approach. *Zeitschrift für Physikalische Chemie* 233:2. 167. <https://doi.org/10.1515/zpch-2017-1070>.