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Academic History

- **B.Sc** Chemistry (**1999**), Faculty of Science Ain shams university
- Administrator organic chemistry(**2000-2003**), Faculty of Science, Ain shams university, Cairo Egypt
- **M.Sc** Organic Chemistry(**2003**), Faculty of Science Ain shams university
- Assistant lecturer organicchemistry(**2003-2007**), Faculty of Science, Ain shams university
- **Ph.D.** Organic Chemistry(**2007**), Faculty of Science Ain Shams University
- Lecturer in Organic Chemistry (**2007-2012**), Faculty of Science, Ain shams university
- Assistant Professor in Organic Chemistry (**2013**), Faculty of Science, Ain shams university
- Associated Professor in Organic Chemistry (**2014**), Faculty of Science, Elmergeb university in Libya

- Professor in Organic Chemistry (**2018**), Faculty of Science, Ain shams university.

Patents

1. [Nitrogen activator stabilizer for reducing and protecting nitrogen fertilizer](#) US Patent 12,006,272
2. [Nitrogen activator stabilizer for reducing and protecting nitrogen fertilizer](#) US Patent 11,999,669
3. [Hydrophobic novel biofilm membrane modified with a spiropolyurethane](#) US Patent 11,766,643

Supervisors in MSc and PhD Thesis

- 1- New Routes for the synthesis of 1-aryl,alkyl, thioaryloxy and aryl amino propionic acid derivatives and their behavior towards nucleophiles and dehydrating agent (PhD 2008)
- 2- Experimental and theoretical search of the behavior of α,β -unsaturated ketoacids towards nucleophiles and some studies with the products (**2009**).
- 3- Study the behavior of some unsaturated ketoacids toward some nucleophiles and synthesis of some heterocyclic compounds with non-mixed and mixed system with expected biological activity (**2012**).
- 4- Synthesis and studied on heterocyclic compounds containing mixed and non-mixed system (**2013**)
- 5- Study the behavior of 4-biphenylacrylic acid towards some nucleophiles and synthesis of some heterocyclic compounds with non-mixed and mixed system with expected biological activity (PhD 2015).
- 6- Study the behavior of 2,4-dimethyl-4'-methoxy chalcone towards some nucleophiles and synthesis of some heterocyclic compounds

with non-mixed and mixed system with expected biological activity (M.Sc. 2016).

- 7- Synthesis of 2(1H)Pyridine and thiopyridone derivatives. Contrasting between the behavior towards nucleophiles (MSc 2016)
- 8- Synthesis of Some Heterocyclic Compounds with Non-Mixed and Mixed Systems and Relevant Compounds (M.Sc. 2017).
- 9- Synthesis and Characterization of Some interesting Heterocyclic compounds containing non-mixed and mixed system (PhD 2017)
- 10- Synthesis and reaction of phthalazinone derivatives and their uses in separation of some nuclear elements (PhD 2017).
- 11- Radiation synthesis and modification of polymeric material applied in food packaging and their bioactivity and biodegradation (PhD 2017).
- 12- Synthesis of Some Heterocyclic Compounds containing Mixed and Non-Mixed and Relevant Compounds 4H-3,1-Benzoxazin-4-one and 4(3H)quinazolinone (M.Sc. 2018).
- 13- Preparation of Different Types of Oil as potential Base Stock for Production of Synthetic Lubricants (PhD 2018)
- 14- Chemistry and biological study of leaves extract of pistacia atlantica desf. Growing in Libya (PhD-2019)
- 15- Synthesis of some nano heterocyclic and relevant compounds as antioxidant materials (PhD-2019)
- 16- Evaluation of the effect of some selected agricultural waste extracts on larvae of culex pipiens L. (DIPTERA: CULICIDAE) (MSc-2018)
- 17- Treatment of water by extraction of flavonoid compounds from lemon (MSc 2019, faculty of science Suez canal university).

- 18- Extraction of pesticide materials from jatropha plant (MSc **2018**)
- 19- Synthesis of nano-heterocyclic compounds as imprinted polymer used for antioxidant (PhD **2016**)
- 20- Synthesis of Novel heterocycles derivatives with expected Biological and Industrial Applications (PhD-2024, faculty of science-Ain Shams university)

PI in Some projects in STDF and Ain Shams university

- 1- Novel organic compounds enhancing the photocatalytic activity of TiO₂ nanoparticles toward the visible range for simulated wastewater treatment (STDF 2020-2022)
- 2- Plasma Organic technology in desalination of the well water used in irrigation of agricultural lands (STDF 2022)
- 3- Synthesis Some organic heterocycle dyes and composites for Enhancement of perovskite solar cells using the effect of Plasma Jet (2017-2019)
- 4- Modify Dry Chemicals Organic Precursors used in Fire controls (2016)
- 5- Synthesis some important heterocycles, Oxirane, pyrimidine, pyridazine, lactone pro-drug, and quinazoline derivatives as antibacterial, anticancer, anticorrosion agents and Antioxidant additives for lubricating oils (2009-2013 in EPRI).
- 6- Purifying the waste tires pyrolysis oil (WTPO), Recycling and Treatment of Waste Polymers via Plasma ozone\ Nano-zeolite based on the mathematical Arrhenius equation.
- 7- Causes of white hair or gray hair in children, teenagers & young people 2009

As Reviewers in Some journals

4. Journal of heterocyclic chemistry
5. Journal of molecular structure
6. Journal of synthetic communication
7. Current organic synthesis
8. Chemical pharmaceutical bulletin
9. American journal of chemistry
10. Egyptian journal of chemistry
11. Letter of organic chemistry
12. Synthetic communication

- 1- International Conference on pure and Applied Heterocyclic Chemistry Abn-Sina 2018 zakazik university
- 2- Egyptian Petrol Research Institute (EPRI) Conference
- 3- Green Economy of science (ASU) Conference

- 4- IUPAC MACRO 2024 UK Polymer Science 2 Years
IUPAC <https://www.macro2024.org/>

- 5- 14th Advanced Polymers via Macromolecular Engineering
France Polymer Science 2 Years IUPAC, RSC
<https://premc.org/apme2023/>

- 6- ACS Fall 2023 USA Various division of Chemistry
Annual American Chemical Society
<https://www.acs.org/meetings/acs-meetings/fall-2023/attend.html>

ACS SPRING 2023

- 7- Crossroads of Chemistry USA Various division of Chemistry
Annual American Chemical Society
<https://www.acs.org/meetings/acs-meetings/spring-2023.html>

عضوية الجمعيات العلمية

1-عضو بالجمعية الكيميائية المصرية لكيمياء المركبات غير متجانسة الحلقة

2- عضو بالجمعية المصرية القومية للعلوم

List of Publications

1. Novel pyrazole and imidazolone compounds: synthesis, X-ray crystal structure with theoretical investigation of new pyrazole and imidazolone compounds anticipated insecticide's activities against targeting *Plodia interpunctella* and *nilaparvata lugens*
Shalaby, M.A., BinSabt, M.H., Rizk, S.A., Fahim, A.M. **RSC Advances**, 2024, 14(15), pp. 10464–10480
2. Microwave-ultrasonic assisted extraction of lignin to synthesize new nano micellar organometallic surfactants for refining oily wastewater Alhalafi, M.H., Rizk, S.A., Al-Malki, E.S., Algohary, A.M. **Bioresources and Bioprocessing**, 2024, 11(1), 46.
3. Superb bio-effectiveness of Cobalt (II) phthalocyanine and Ag NPs adorned Sm-doped ZnO nanorods/cuttlefish bone to annihilate *Trichinella spiralis* muscle larvae and adult worms FEA Bayaomy, SA Rizk, AS Darwish, *Parasitology International* 2024, 101, 102899
4. Photosensitization of TiO₂ microspheres by novel Quinazoline-derivative as visible-light-harvesting antenna for enhanced Rhodamine B photodegradation
Hamza, M.A., Rizk, S.A., Ezz-Elregal, E.-E.M., ...Ramadan, S.K., Abou-Gamra, Z.M. **Scientific Reports**, 2023, 13(1), 12929
<https://doi.org/10.1038/s41598-023-38497-9>
5. Microwave-assisted synthesis, antioxidant activity, docking simulation, and DFT analysis of different heterocyclic compounds
Shalaby, M.A., Fahim, A.M., Rizk, S.A. **Scientific Reports**, 2023, 13(1), 4999
<https://doi.org/10.1038/s41598-023-31995-w>
6. Synthesis, reactions and application of chalcones: a systematic review
Shalaby, M.A., Rizk, S.A., Fahim, A.M. **Organic and Biomolecular Chemistry**, 2023, 21(26), pp. 5317–5346
<https://doi.org/10.1039/D3OB00792H>
7. Microwave-ultrasonic assisted synthesis, and characterization of novel 3'-(amino, hydrazino and hydrazide)-6'-bromo-spiro(isobenzofuran-1,2'-quinazoline)-3,4'-dione derivatives as antimicrobial agents
Algohary, A.M., Hassan, A.M.A., Alzahrani, A.Y., Rizk, S.A. **Journal of Heterocyclic Chemistry**, 2023, 60(6), pp. 1014–1026

<https://doi.org/10.1002/jhet.4647>

8. **Antioxidant activity of novel nitrogen scaffold with docking investigation and correlation of DFT stimulation**

Shalaby, M.A., Fahim, A.M., Rizk, S.A.
RSC Advances, **2023**, 13(21), pp. 14580–14593
<https://doi.org/10.1039/D3RA02393A>

9. **Microwave-assisted hydrothermal preparation of magnetic hydrochar for the removal of organophosphorus insecticides from aqueous solutions**

Nassar, A.E., El-Aswar, E.I., Rizk, S.A., Gaber, S.E.-S., Jahin, H.S.
Separation and Purification Technology, **2023**, 306, 122569
<https://doi.org/10.1016/j.seppur.2022.122569>

10. **Green synthesis of aryl-(4-oxo-1,2-dihydroquinazolin-4-yl-methylene) pyrazole-TiO₂ nanoparticles as dyes removable for waste water treatment**

Alotaibi, B., Rizk, S.A., Alyousef, H.A., Atta, A., Elgendy, A.T.
Applied Organometallic Chemistry, **2023**
<https://doi.org/10.1002/aoc.7307>

11. **Enantioselective MW-US-assisted Synthesis, DFT Simulation and Molecular Docking of Spiro Pyrrolidine-2,3'-Thieno [2,3-d]Pyridazin-Hydrazide as Green Agricultural Product**

Rizk, S.A., Alzahrani, A.Y., Abdo, A.M.
Polycyclic Aromatic Compounds, **2023**
<https://doi.org/10.1080/10406638.2023.2227316>

12. **Synthesis, Insecticidal Activity and DFT Study of 1,2,4-Triazolidinthione, 1,3,5-Oxadiazine and Thiourea Derivatives**

El-Sayed, A.A., Elsayed, G.A., Rizk, S.A., Ismail, M.F.
Organic Preparations and Procedures International, **2023**
<https://doi.org/10.1080/00304948.2023.2209489>

13. **A Sustainable Synthesis, Eco-Safe Approach Efficiency and DFT Study of Novel 5,6,7,8-Tetrahydroquinazolin-2(1H)-one Derivatives as Antioxidant Reagents**

Kadhim, M.A., Fahmy, A.F.M., Zangana, E.K.M., Hassaballah, A.I., Rizk, S.A.
Indonesian Journal of Chemistry, **2023**, 23(4), pp. 1138–1151
<https://doi.org/10.22146/ijc.83583>

14. **Ultrasonic-Assisted Synthesis and Quantum Chemical Analysis of Spiro[Indoline-3,3'-Pyrazol]-2-One Derivatives as Effective Bactericidal and Viricidal Agents**

Rizk, S.A., Abdelwahab, S.S., Abdo, A.M.
Polycyclic Aromatic Compounds, **2023**, 43(3), pp. 2656–2671
<https://doi.org/10.1080/10406638.2022.2052118>

15. **Ultrasonic Promoted Regioselective Reactions of the Novel Spiro 3,1-Benzoxazon-Isobenzofuranone Dye Toward Some Organic Base Reagents**

Hassaballah, A.I., Ramadan, S.K., Rizk, S.A., El-Helw, E.A.E., Abdelwahab, S.S.

Polycyclic Aromatic Compounds, **2023**, 43(4), pp. 2973–2989
<https://doi.org/10.1080/10406638.2022.2061021>

16. Rodenticidal Activity of Some Quinoline-Based Heterocycles Derived from Hydrazide–Hydrazone Derivative

Kaddah, M.M., Fahmi, A.A., Kamel, M.M., [Rizk, S.A.](#), Ramadan, S.K.
Polycyclic Aromatic Compounds, **2023**, 43(5), pp. 4231–4241
<https://doi.org/10.1080/10406638.2022.2088576>

17. Facile Synthesis, Biological Evaluation, DFT Studies and in Silico Prediction ADME/Pharmacokinetics Properties of N-(1-(2-Chlorobenzo[h]Quinolin-3-yl)-1-Substituted-vin-2-yl)Benzamide Derivatives

Abdelrahman, A.M., Fahmi, A.A., El-Helw, E.A.E., [Rizk, S.A.](#)
Polycyclic Aromatic Compounds, **2023**, 43(7), pp. 6597–6614
<https://doi.org/10.1080/10406638.2022.2123537>

18. Designing of Zn (II)-based novel coordination polymer (CP): Synthesis, characterization, and heavy metal removal from water

Baraka, A., Sheashea, M., Gado, K., [Rizk, S.](#), Abuzalat, O.
Applied Organometallic Chemistry, **2023**, 37(1), e6940
<https://doi.org/10.1002/aoc.6940>

19. Synthesis, Density Functional Theory, Insecticidal Activity, and Molecular Docking of Some N-Heterocycles Derived from 2-((1,3-Diphenyl-1H-Pyrazol-4-yl)Methylene)Malonyl Diisothiocyanate

El-Helw, E.A.E., Abdelrahman, A.M., Fahmi, A.A., [Rizk, S.A.](#)
Polycyclic Aromatic Compounds, **2023**, 43(9), pp. 8265–8281
<https://doi.org/10.1080/10406638.2022.2149565>

20. Synthesis, DFT and Antitumor Activity Screening of Some New Heterocycles Derived from 2,2'-(2-(1,3-Diphenyl-1H-Pyrazol-4-yl)Ethene-1,1-Diyl)Bis(4H-Benzo[d][1,3]Oxazin-4-One)

Abdelrahman, A.M., Fahmi, A.A., [Rizk, S.A.](#), El-Helw, E.A.E.
Polycyclic Aromatic Compounds, **2023**, 43(1), pp. 721–739
<https://doi.org/10.1080/10406638.2021.2020310>

21. Novel Azo Dye Based on 1,3,4-Thiadiazole: Synthesis, Characterization Linked to Application as Dye-Sensitized Solar Cells and Antioxidant

Ashmawy, A.M., Alahl, A.A.S., Ali, A.A., Mahmoud, A.M., [Rizk, S.A.](#)
Egyptian Journal of Chemistry, **2023**, 66(8), pp. 531–542
<https://doi.org/10.21608/EJCHEM.2022.161916.6960>

22. Practiced Synthesis and Biological Evaluation of Some New Pyrimidin-2-Thione Derivatives as Potential Anticancer Agents

Zaher, O.S., Badawy, M.M.M., Aly, M.R., [Rizk, S.A.](#)
Egyptian Journal of Chemistry, **2023**, 66(3), pp. 233–243
<https://doi.org/10.21608/EJCHEM.2022.146115.6357>

23. Ultrasonic-Assisted Regioselective Reactions and Quantum Chemical Study of Pyrimidin-2-Thione Carrying Pyrazole Moiety as Algaecides for Refining Wastewater
Alhalafi, M.H., Rizk, S.A., Alzahrani, A.Y.A., Algohary, A.M.
Indian Journal of Heterocyclic Chemistry, **2023**, 33(1), pp. 19–21
24. Assessment of larvicidal efficiency of nanoemulsion from Pimpinella anisum L. essential oil on Culex pipiens L. (Diptera: Culicidae)
Abdel-Nasser, E., Hafez, J.A., Badawy, R.M., Rizk, S.A., Hefni, H.H., Azmy, R.M.
Egyptian Journal of Aquatic Biology and Fisheries, **2023**, 27(2), pp. 101–108
<https://doi.org/10.21608/EJABF.2023.290343>
25. A new approach to chromeno[4,3-b]pyridine: Synthesis, X-ray, spectral investigations, hirshfeld surface analysis, and computational studies
Shalaby, M.A., Al-Matar, H.M., Fahim, A.M., Rizk, S.A.
Journal of Physics and Chemistry of Solids, **2022**, 170, 110933
<https://doi.org/10.1016/j.jpcs.2022.110933>
26. Expeditious microwavable one-pot synthesis and biological exploration of spiro[indoline-3,4'-pyrazolo[3,4-b] pyridine derivatives
Naglaa, F.H.M., Rizk, S.A., Galal, A.E., Ali, A.K.
Journal of the Iranian Chemical Society, **2022**, 19(8), pp. 3711–3719
<https://doi.org/10.1007/s13738-022-02568-x>
27. Design, synthesis, molecular docking study and toxicological evaluation potential of novel spiro and fused heterocyclic derivatives against agricultural insect pests
Abdelwahab, S.S., Rizk, S.A., Eid, A.M.
Egyptian Journal of Chemistry, **2022**, 65(6), pp. 207–218
<https://doi.org/10.21608/EJCHEM.2021.100429.4705>
28. Regioselective Synthesis, Spectroscopic Characterization, and Computational Chemical Study of Spiro[Indoline-3,4'-Pyrazolo[3,4-b] Pyridine Derivatives as Agrochemical Agents
Ibrahim, N.A., El-Kaed, S.A., Rizk, S.A., Ali, A.K.
Polycyclic Aromatic Compounds, **2022**, 42(8), pp. 5567–5584
<https://doi.org/10.1080/10406638.2021.1942083>
29. Synthesis, density functional theory, and cytotoxic activity of some heterocyclic systems derived from 3-(3-(1,3-diphenyl-1H-pyrazol-4-yl)acryloyl)-2H-chromen-2-one
Ramadan, S.K., Rizk, S.A.
Journal of the Iranian Chemical Society, **2022**, 19(1), pp. 187–201
<https://doi.org/10.1007/s13738-021-02298-6>
30. Novel colorimetric chemosensors containing pyridine moiety for detection of some cations in water and crops samples: Design, synthesis, and evaluation
Algohary, A.M., Hassan, M.M., El-Hashash, M.A., Rizk, S.A., Elamin, M.B., Ahmed, A.H.
Journal of Saudi Chemical Society, **2021**, 25(12), 101386

<https://doi.org/10.1016/j.jscs.2021.101386>

31. [Microwave-assisted regioselective reaction of furanone derivative supported by DFT stimulation and molecular docking to afford controlling insecticidal agents](#)

[Rizk, S.A.](#), [Atta-Allah, S.R.](#)

Journal of the Iranian Chemical Society, **2021**, 18(9), pp. 2407–2423

<https://doi.org/10.1007/s13738-021-02202-2>

32. [An efficient ultrasonic synthetic approach, DFT study, and molecular docking of 6a-hydroxy-9-nitro-6,6a-dihydro-isoindolo\[2,1-a\]quinazoline-5,11-dione derivatives as algacides for refining wastewater](#)

[El-Banna, M.G.](#), [El-Hashash, M.A.](#), [Elnaggar, A.M.](#), [El-Badawy, A.A.](#), [Rizk, S.A.](#)

Journal of Heterocyclic Chemistry, **2021**, 58(7), pp. 1502–1514

<https://doi.org/10.1002/jhet.4276>

33. [A green microwave method for synthesizing a more stable phthalazin-1-ol isomer as a good anticancer reagent using chemical plasma organic reactions](#)

[Rizk, S.A.](#), [El-Hashash, M.A.](#), [Youssef, A.A.](#), [Elgendy, A.T.](#)

Heliyon, **2021**, 7(3), e06220

<https://doi.org/10.1016/j.heliyon.2021.e06220>

34. [Straightforward synthesis, antiproliferative screening, and density functional theory study of some pyrazolylpyrimidine derivatives](#)

[Halim, K.N.M.](#), [Rizk, S.A.](#), [El-Hashash, M.A.](#), [Ramadan, S.K.](#)

Journal of Heterocyclic Chemistry, **2021**, 58(2), pp. 636–645

<https://doi.org/10.1002/jhet.4204>

35. [Improving heavy oil recovery, part \(I\): Synthesis and surface activity evaluation of some novel organometallic surfactants based on salen-M complexes](#)

[Abdelhamid, M.M.](#), [Rizk, S.A.](#), [Betiha, M.A.](#), [Desouky, S.M.](#), [Alsabagh, A.M.](#)

RSC Advances, **2021**, 11(3), pp. 1750–1761

<https://doi.org/10.1039/D0RA09502H>

36. [Synthesis and biological activity on IBD virus of diverse heterocyclic systems derived from 2-cyano-N'-\(\(2-oxo-1,2-dihydroquinolin-3-yl\)methylene\)acetohydrazide](#)

[Kaddah, M.M.](#), [Morsy, A.R.I.](#), [Fahmi, A.A.](#), [Rizk, S.A.](#), [Ramadan, S.K.](#)

Synthetic Communications, **2021**, 51(22), pp. 3366–3378

<https://doi.org/10.1080/00397911.2021.1970776>

37. [Synthesis, characterization, computational chemical studies and antiproliferative activity of some heterocyclic systems derived from 3-\(3-\(1,3-diphenyl-1H-pyrazol-4-yl\)acryloyl\)-2H-chromen-2-one](#)

[Kaddah, M.M.](#), [Fahmi, A.A.](#), [Kamel, M.M.](#), [Ramadan, S.K.](#), [Rizk, S.A.](#)

Synthetic Communications, **2021**, 51(12), pp. 1798–1813

<https://doi.org/10.1080/00397911.2021.1904991>

38. Cytotoxic activity and density functional theory studies of some 1,3-diphenylpyrazolyltetrahydropyrimidine derivatives

Ramadan, S.K., Halim, K.N.M., Rizk, S.A., El-Hashash, M.A.
Journal of the Iranian Chemical Society, **2020**, 17(7), pp. 1575–1589
DOI <https://doi.org/10.1007/s13738-020-01880-8>

39. Synthesis, DFT and antimicrobial studies of 5,6,7,8- Tetrachloro phthalazin-1-ol and 2,3-benzoxazin-1(2h)-one derivatives

Rizk, S.A., Youssef, M.F., Mubarak, A.M.
Egyptian Journal of Chemistry, **2020**, 63(5), pp. 1767–1777
DOI <https://doi.org/10.21608/EJCHEM.2019.16936.2036>

40. Which energetically favorable sustainable synthesis of 4-amino-8-azacoumarin ester or 4-hydroxy-3-cyano derivative based on new exact kinetic Arrhenius and DFT stimulation

El-gendy, A.T., Youssef, A.A., Rizk, S.A.
Journal of the Iranian Chemical Society, **2020**, 17(5), pp. 1001–1011
DOI <https://doi.org/10.1007/s13738-019-01838-5>

41. Synthesis, DFT study, molecular docking and insecticidal evaluation of some pyrazole-based tetrahydropyrimidine derivatives

Halim, K.N.M., Ramadan, S.K., Rizk, S.A., El-Hashash, M.A.
Synthetic Communications, **2020**, 50(8), pp. 1159–1175
<https://doi.org/10.1080/00397911.2020.1720739>

42. A facile synthesis and antioxidant evaluation of conjugated 8-azacoumarins based on DFT parameters

Rizk, S.A., Shaban, S., Sallam, H.A.
Journal of Heterocyclic Chemistry, **2020**, 57(2), pp. 867–879
<https://doi.org/10.1002/jhet.3833>

43. Design, Regiospecific Green Synthesis, Chemical Computational Analysis, and Antimicrobial Evaluation of Novel Phthalazine Heterocycles

Rizk, S.A., Abdelwahab, S.S., El-Badawy, A.A.
Journal of Heterocyclic Chemistry, **2019**, 56(9), pp. 2347–2357
<https://doi.org/10.1002/jhet.3622>

44. A Facile One-pot Synthesis and Anticancer Evaluation of Interesting Pyrazole and Pyrimidinethione via Heterocyclic Interconversion

Rizk, S.A., Shaban, S.
Journal of Heterocyclic Chemistry, **2019**, 56(9), pp. 2379–2388
<https://doi.org/10.1002/jhet.3625>

45. Morphology control synthesis of iron-rich Sinai clay by novel O, N, S-heterocyclic moieties: Magnetic organoclays for various strategic uses in lubricating oilfield industry

Abdel-Latef, S.A., Darwish, A.S., Rizk, S.A., Atya, S.K., Helal, M.H.E.
Journal of Molecular Liquids, **2019**, 288, 111006

<https://doi.org/10.1016/j.molliq.2019.111006>

46. Efficient green synthesis of antioxidant azacoumarin dye bearing spiro-pyrrolidine for enhancing electro-optical properties of perovskite solar cells

[Attia, S.K.](#), [Elgendy, A.T.](#), [Rizk, S.A.](#)

Journal of Molecular Structure, **2019**, 1184, pp. 583–592

<https://doi.org/10.1016/j.molstruc.2019.02.042>

47. Synthesis and QSAR Study of Some Novel Heterocyclic Derivatives as In Vitro Cytotoxic Agents

[Rizk, S.A.](#), [Abdelwahab, S.S.](#), [Elrazaz, E.](#)

Journal of Heterocyclic Chemistry, **2019**, 56(2), pp. 443–449

<https://doi.org/10.1002/jhet.3417>

48. Enhancing lubricating oil properties using novel quinazolinone derivatives: DFT study and molecular dynamics simulation

[Elkholy, A.E.](#), [Rizk, S.A.](#), [Rashad, A.M.](#)

Journal of Molecular Structure, **2019**, 1175, pp. 788–796

<https://doi.org/10.1016/j.molstruc.2018.08.045>

49. Phenolic Content as Antioxidant and Antimicrobial Activities of Pistacia atlantica Desf. (Anacardiaceae) Extract from Libya

[Othman, S.O.K.](#), [El-Hashash, M.A.](#), [Hussein, S.A.M.](#), ...[Rizk, S.A.](#), [Elabbar, F.A.](#)

Egyptian Journal of Chemistry, **2019**, 62(1), pp. 21–28

<https://doi.org/10.21608/EJCHEM.2018.4577.1403>

50. Efficient Green Synthesis and Computational Chemical Study of Some Interesting Heterocyclic Derivatives as Insecticidal Agents

[Fahmy, A.F.M.](#), [Rizk, S.A.](#), [Hemdan, M.M.](#), [El-Sayed, A.A.](#), [Hassaballah, A.I.](#)

Journal of Heterocyclic Chemistry, **2018**, 55(11), pp. 2545–2555

<https://doi.org/10.1002/jhet.3308>

51. One-pot synthesis, spectroscopic characterization and DFT study of novel 8-azacoumarin derivatives as eco-friendly insecticidal agents

[Rizk, S.A.](#), [Elsayed, G.A.](#), [El-Hashash, M.A.](#)

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