

Curriculum Vitae



1. Personal details

- Name: Radwan A Sulayman Alnajjar.
- Date of birth: 21/10/1986.
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2. Qualifications:

- May 2018 – Present, Ph.D. Student, Medicinal Organic Chemistry, University of Cape Town, South Africa (Prof. Kelly Chibale), Expected defense Dec 2020.
- July 2013 M.Sc. in Synthetic Organic Chemistry, University of Benghazi (Garyounis), Libya. (Thesis title: Synthesis of 5-aminopyrazole derivative via malononitrile dimer).
- June 2009 B.Sc. in Chemistry, University of Benghazi (Garyounis), University, Benghazi-Libya. (First on Graduation Class 2008-2009).

3. Work

- Jul-2017 - Present. **Lecturer**, Department of Chemistry, University of Benghazi.
- Jul - 2013 – Jul-2017. **Assistant Lecturer**, Department of Chemistry, University of Benghazi.
- Nov - 2010 – Jul 2013. **Demonstrator**, Department of Chemistry, University of Benghazi.
- Sep - 2009 – Nov - 2010. **Chemistry Teacher**, Libyan Center for Gifted Student.

4. Experience

- Teaching organic chemistry courses for undergraduate students for nine years.
- LCMS, NMR, and Biotage techniques.
- Computational software (Gaussian, Schrodinger, MOE) for DFT, MD, and docking studies.
- Communication and problem-solving skills.
- Time management and teamwork.
- Sep. 2015 – Sep 2017, Coordinator of admission office at the department of chemistry, faculty of science, University of Benghazi.
- 2007-2009 Head of chemical society for undergraduate students, Garyounis University.
- Member of South African chemical society.
- Member of the American chemical society.

5. Research interest

- Synthesis of heterocyclic compounds and their applications in medicinal chemistry.
- Design and synthesis of new drug candidates for the neglected tropical disease.
- Computer-Aided Drug Design(CADD).
- Molecular Dynamic simulation(MD).
- Density Functional theory(DFT).

6. Journal Publications

1. Quantum chemical modeling, synthesis, FT-IR, ¹H NMR, ¹³C NMR and UV/Vis of new azomethine derivatives, *Journal of Molecular Structure*, 1221(2020) 128799.
2. Negative solvatochromic behavior and theoretical investigation on 2-amino-4-(4-(dimethylamino)phenyl)buta-1,3-diene-1,1,3-tricarbonitrile, *Chemical Data Collections*, 2020 in progress.
3. Antitumor and Antioxidant Activities of the New Synthesized Azomethine Derivatives: Experimental and Theoretical Investigations, *Letters in Organic Chemistry*. 2020, Vol. 17, 1-19.
4. Quantum-chemical modeling, spectroscopic (FT-IR, excited states, UV/Vis, polarization, and Dichroism) studies of two new benzo[d]oxazole derivatives, *Journal of Molecular Structure*. 1202 (2020) 127352.
5. Theoretical investigation of adsorption effects Ciclopirox drug over CNT(6,6-6) nanotube as factor of drug delivery: a DFT study, *Adsorption*, Nov 2019
6. Antitumor and Antioxidant Activities of the New Anthraquinone Derivatives: Synthesis, DPPH, ABTS, Biological and DFT Investigations, *Chinese J. Struct. Chem.* 2019. Vol. 10, 38, 1673-1690.
7. Optimization, Spectroscopic (FT-IR, Excited States, UV/Vis) Studies, FMO, ELF, LOL, QTAIM and NBO Analyses and Electronic Properties of Two New Pyrimidine Derivatives, *Chinese J. Struct. Chem.* 2019. 10 Vol. 38, No. 10 1615 – 1639.
8. Competition between [2+1] and [4+1] cycloaddition mechanisms in reactions of conjugated nitroalkenes with dichlorocarbene in the light of DFT computational study, *Journal of Molecular Modeling*, (2019) 25: 157.
9. Investigation of Adsorption Tyrphostin AG528 anticancer drug upon the CNT(6,6-6) nanotube: A DFT study, *Current molecular medicine*, 2019 Feb.
10. Adsorption Properties of the New Anti-Cancer Drug Alectinib on CNT(6,6-6) Nanotube: Geometry Optimization, Molecular Structure, Spectroscopic (NMR, UV/Vis, Excited State), FMO, MEP and HOMO–LUMO Investigations, *Journal of Cluster Science*. 2019 Jan 15;30(1):83-96.
11. A DFT Study of The Effect of Halogenation on The Conformation of 1,4-Dithiin And Its S-Oxide Derivatives: *Rev. Roum. Chim.*, 2018;63(4):293-8.

12. 4H-Quinolizin-4-one Derivatives: A Review, *Libyan Journal of Science & Technology* 7:1 (2018) 12-16.
13. Adsorption Properties of the Molecule Resveratrol on CNT(8,0-10) Nanotube: Geometry Optimization, Molecular Structure, Spectroscopic (NMR, UV/Vis, Excited State), FMO, MEP and HOMO-LUMO Investigations, *Journal of Molecular Structure*, 2018 May 15;1160:479-87.
14. Anisotropy (optical, electrical and thermal conductivity) in thin polarizing films for UV/Vis regions of spectrum: Experimental and theoretical investigations. *Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy*, 2018 Mar 5;192:343-60.
15. Two routes comparison for synthesis 5-aminopyrazole derivative, *Der Chemica Sinica*, 2014, 5(3):97-102.

7. Conference Proceedings

1. Negative solvatochromic behavior and theoretical investigation on 2-amino-4-(4-(dimethylamino)phenyl)buta-1,3-diene-1,1,3-tricarbonitrile, The Third Libyan Conference on Chemistry and its Applications (Lcca2019), Benghazi University, Benghazi, Libya, Sep 7th – 9th, 2019
2. Conformational analysis of N₂F₄ Inside C₆₀ and C₈₀ Fullerenes, 1st International conference on information technology (AICIS 2018), 20-21 November 2018, Baghdad and Fallujah, Iraq.
3. Novel pyrazole derivatives from 3-aminopyridine diazonium salt, The second conference on chemistry and its applications 9-11 May 2017, Benghazi, Libya.
4. Conformational behavior of tetrafluorohydrazine inside C₆₀ fullerene, The second conference on chemistry and its applications 9-11 May 2017, Benghazi, Libya.
5. Conformational Behavior of N-Methylhydroxylamine in Nanotube, The second international conference of basic sciences and their applications, 25-27 April 2017, Omer Al Mukhtar University, Libya.
6. Conformational analysis of perhalo-1,4-dithiin, The second international conference of basic sciences and their applications, 25-27 April 2017, Omer Al Mukhtar University, Libya.

8. Conference and workshops

1. Judge, Cape Town Expo for Young Scientists, 17-18 August 2018.
2. Material Control and Accountability Workshop, May 6-10, 2018 in Kuala Lumpur, Malaysia.
3. The second conference on chemistry and its applications 9-11 may, 2017, Benghazi, Libya
4. The second international conference of basic sciences and their applications, 25-27 April 2017 at the faculty of science Omer Al Mukhtar University, Libya.
5. Chemical risk management trainer development program (CRM-TDP) for Libyan chemical professionals, 17-21 April 2017 in KL, Malaysia

6. Libyan-American chemical security dialogue, 26-28 September 2016 in Tunis, Tunisia.
7. First conference on chemical sciences and its application, 21-23 April 2014, Omer El-Mukhtar University, Al-Baida, Libya.
8. The first conference for postgraduate students, 20 June 2012, Benghazi University, Benghazi, Libya.