

Asma Omar Errayes

Email: drasmaerrayes@gmail.com, A.Errayes@uot.edu.ly **Mobile:** +218-926180765

Address: P.O. Box 13203, Chemistry Department, Faculty of Science, University of Tripoli, Tripoli, Libya.

Summary/Objective

Associate Professor with extensive experience in Organic Chemistry, dedicated to advancing scientific knowledge through research, teaching, and academic leadership. Seeking to leverage expertise in chemical safety, environmental protection, and innovative research methodologies to contribute to a dynamic academic or research institution.

Education

- **Ph.D. Organic Chemistry (2012-2016)**
 - Chemistry Department, Faculty of Science, Ain Shams University, Egypt.
- **M.Sc. Organic Chemistry (2004-2007)**
 - Chemistry Department, Faculty of Science, Ain Shams University, Egypt.
- **BSc Honours Degree in Chemistry (1994-1997)**
 - Chemistry Department, Faculty of Science, Tripoli University, Libya.
- **High School (1989-1993)**
 - Omar Elmoktar, Tripoli, Libya.

Academic Appointments/Professional Experience

- **Associate Professor**, Chemistry Department, Faculty of Science, University of Tripoli (2024 – Present)
 - Responsibilities include teaching, research, and academic administration.
- **Assistant Professor**, Chemistry Department, Faculty of Science, University of Tripoli (2020 – 2024)
 - Contributed to curriculum development and supervised student research projects.
- **Lecturer**, Chemistry Department, Faculty of Science, University of Tripoli (2017 – 2020)
 - Delivered lectures and practical sessions in various organic chemistry courses.
- **Assistant Lecturer**, Chemistry Department, Faculty of Science, University of Tripoli (2007 – 2011)
 - Assisted senior faculty with teaching and laboratory supervision.
- **Demonstrator**, Chemistry Department, Faculty of Science, Tripoli University (1998 – 2003)
 - Provided laboratory demonstrations and support to undergraduate students.

Research Interests

- Organic Chemistry
- Environmental Chemistry
- Chemical Safety and Security
- Natural Products Chemistry
- Corrosion Inhibition
- Nanoparticles Synthesis and Bioactivity

Publications

1. Mahbouba Nailia, Rabia Alghazeer, Asma Al-Najjar, Fahima Al-Massoudia, and **Asma Errais**. (2013). Antioxidant and Antibacterial Activities of leaf and fruit extracts of *Capparis spinosa* L. from Libya. *The Libyan Journal of Agriculture*, 18:1-6.
2. Marwa Sayed Salem, Mahmoud Farhat, **Asma Omar Errayes**, and Hassan Mohamed Fawzy Madkour, (2015). Antioxidant Activity of Novel Fused Heterocyclic Compounds Derived from Tetrahydropyrimidine Derivative. *Journal of Chemical & Pharmaceutical Bulletin*, 63: 866–872.
3. Marwa Sayed Salem, **Asma Omer Errayes**. (2016). Synthesis and antioxidant properties of novel pyrimidine-containing heterocycles. *Journal of Chemical Research*, 40(5):299-304.
4. Mahmoud F. Farhat, Ahmed M. El-Saghier, Suhilla Kh. Elnamia, Nisrin A. Dwaya, Asma O. Jebiril, **Asma O. Errayesa**, Moftah O. Darwish and Mohammed S. Ibrahim. (2019). Utilization of 2-Ylidene-4-Thiazolidinones in the Synthesis of Heterocyclic Compounds Part III: Synthesis and In-Vitro Antibacterial Activity Evaluation of Thienopyrimidinone Derivatives. *Jordan Journal of Chemistry*, 14: 39-47.
5. **Asma Omar Errayes**, Wanisa Abdussalam-Mohammed and Moftah Omar Darwish. (2020). Review of Phytochemical and Medical Applications of *Annona muricata* Fruits. *Journal of Chemical Reviews*, 2(1): 70-79.
6. Mahmoud Farhat, Suhilla Elnami, Nisrin Dwaya, Moftah Darwish, **Asma Errayes**, Karima Abuamer, Wanisa Mohammed, Mahjoubah Munayr. (2020). Utilization of 2-Ylidene-4-Thiazolidinones in the Synthesis of Heterocyclic Compounds Part (IV): Synthesis of Thiophene Derivatives. *Journal of Engineering Research and Application*, 10(01) (Series -III): 41-48.
7. Wanisa Abdussalam-Mohammed, Amna Qasem Ali, **Asma O. Errayes**. (2020). Green Chemistry: Principles, Applications, and Disadvantages. *Chemical Methodologies*, 4: 408-423.
8. Mahoba Naili, **Asma Errayes**, Rabia Alghazeer, Wanisa Mohammed, Moftah Darwish. (2020). Evaluation of Antimicrobial and Antioxidant Activities of *Psidium guajava* L growing in Libya. *International Journal of Advanced Biological and Biomedical Research*, 4(8):419-428.
9. Wanisa Abdussalam-Mohammed, Mohamed Y. Najem, **Asma Omar Errayes**, Shamsi Saad Shamsi, Moftah Omar Darwish, Aysha B. Mezoughi. (2021).

Synthesis of Highly Stabilized AuNPs Using 3,5-Dinitrobenzoic Acid and Sodium Acetate as Capping Agents in an Aqueous Solution and their Bioactivity. *Journal of Nano Research*, 70:67-79.

10. Abdussalam-Mohammed W., Amar I. A., AlMaky M. M., Abdelhameed A., and **Errayes A. O.**, Silver Nanoparticles and Protein Polymer-Based Nanomedicines, *Protein-Based Biopolymers*, 2023, Elsevier, 239–311, <https://doi.org/10.1016/B978-0-323-90545-9.00003-3>.
11. **Errayes, A. O.**, Alshibani, G. A.; Darwish, M. O. Utilization of Natural Nutmeg Oil in a 0.5 M H₂SO₄ Solution as an Environmentally Friendly Corrosion Inhibitor for Carbon Steel. *As-Salam Int. Univ. J.* 2023, 2 (4), 77–88.
12. **Errayes, Asma Omar.** (2023). "Synthesis and antioxidant evaluation of some pyrimidine heterocyclic derivatives." Poster presented at the Second Seminar on Chemistry for Medicine and the Environment (CME-2023), October 22-25, 2023, Tozeur, Tunisia.
13. **Errayes, A. O.**; Alshibani, G. A.; Darwish, M. O. Corrosion Inhibition of Carbon Steel XC70 in Two Acidic Media (0.1 N H₂SO₄ and 0.1 N HCl) by Weight Loss Method Using Black Pepper Extract as Corrosion Inhibitor. *Libyan J. Basic Sci.* 2023, 21 (1), 75–89.
14. **Errayes, Asma Omar.** (2024). "Evaluating Chemical Safety and Security Awareness Among Teachers, Laboratory Technicians, and Students in Libyan Universities." Presented at the 27th IUPAC International Conference on Chemistry Education (ICCE2024), July 15-19, 2024, Pattaya, Thailand. DOI: 10.17605/OSF.IO/WJB5R
15. **Errayes, A.**; Darwish, M.; Ibrahim, N.; Alshibani, G. Antioxidant Properties, Phytochemical Screening of *Posidonia oceanica* in Sabratha Beach, Libya. *AlQalam J. Med. Appl. Sci.* 2025, 1076–1080.

Teaching Experience

Courses Taught: Delivered all theoretical and practical Organic Chemistry courses at both undergraduate (B.Sc.) and postgraduate (M.Sc.) levels.

Professional Service/Memberships

Memberships:

- Libyan Chemical Society, Member
- Libyan Association for Chemical Safety and Security
- Arab Society of Toxicology and Environment Protection
- Libyan Society for Scientific Research and Studies

- **Administrative Positions Held:**

- Head of Undergraduate Studies Office, Chemistry Department, Faculty of Science, University of Tripoli.
- Coordinator, General Chemistry, College of Engineering.
- Head of Department of Advisory, Research, and Training, Faculty of Science, University of Tripoli.
- Director of the Office of the Teaching Staff, Faculty of Science, University of Tripoli.

Skills

- **Technical Skills:** NMR, FTIR, MS (Mass Spectrometry) - extensive experience from Central Laboratory Unit, Ain Shams University, Egypt (2016).
- **Language Proficiency:** Arabic (Native), English (Fluent).

Conferences and Workshops

- **Chemical Emergency Response Planning Workshop for Industry and Academia Professionals**
 - Organized by: Chemical Security Program (CSP) & CRDF Global
 - Location: Tunis, Tunisia
 - Date: November 2024
 - Description: Acquired advanced knowledge and practical skills in planning for chemical emergencies in industrial and academic settings.
- **Chemical Security Curriculum Development Workshop for Libyan Chemical Industries**

- Organized by: Chemical Security Program (CSP) & Global Chemical and Biological Security (GCBS)
- Location: Tunis, Tunisia
- Date: July 2023
- Description: Gained expertise in developing curricula focused on chemical safety and security tailored to the needs of Libyan chemical industries.

- **International Workshop on Artificial Intelligence Tools in Scientific Research**
 - Scientific Events Gate Sdn.Bhd. - Malaysia
 - May 2025
 - Online (via Zoom)
 - Description: Acquired practical knowledge in leveraging cutting-edge Artificial Intelligence tools to enhance data analysis and research methodologies, directly applicable to chemical research and innovation.

- **Educational Seminar: "Next-Generation of Research and Innovation: Integrating Research, Innovation, Industry, and Society"**
 - The Arab Network for Addressing Emerging Environmental Pollutants
 - May 3, 2025
 - Online
 - Description: Gained insights into interdisciplinary approaches for integrating scientific research, innovation, and industrial applications, particularly relevant to environmental chemistry and sustainable solutions.

- **Virtual Launch of the Arab Network for Addressing Emerging Environmental Pollutants (EPN)**
 - The Arab Network for Addressing Emerging Environmental Pollutants
 - April 12, 2025
 - Online
 - Description: Participated in the inaugural event of a key regional network focused on environmental pollutants, enhancing understanding of current challenges and collaborative research opportunities in environmental chemistry.

- **International Scientific Workshop on Documentation and Reference Management (APA7th Style)**

- Scientific Events Gate Sdn.Bhd. - Malaysia
- September 2023
- Online (via FCC platform)
- Description: Mastered advanced techniques for scientific documentation and reference management using APA 7th edition style, crucial for preparing high-quality research papers and reports in chemical sciences.