CURRICULUM VITAE

Rayya Al Balushi (PhD)

- **PERSONAL INFORMATION**

NAME:	**RAYYA AHMED ALI AL BALUSHI**
PRESENT POSITION	Head of Department (HOD), Associate Professor in Chemistry
CURRENT ADDRESS	Department of Basic and Applied Sciences (DBAS) College of Applied and Health Sciences (CAHS) A`Sharqiyah University (ASU) A'Sharqiyah North Governorate, Ibra
CONTACT INFORMATION	Phone: +968 2540 1183 (office), +968 9920 8941 (GSM) E-mail Addresses: rayya.albalushi@asu.edu.om, rayya4961@gmail.com,
CITIZENSHIP	Omani
ID NO.	6164343
SPOKEN LANGUAGES	Arabic and English

- **Executive Summary**

I was born and raised in A'Sharqiyah North, Oman. I earned my M.Sc. degree in Chemistry from Sultan Qaboos University, Oman, in 2006. I received a Ph.D. degree in chemistry in September 2016 from Sultan Qaboos University. I worked with the Ministry of Education from September 1997 to January 2018. In September 2017, I joined A'Sharqiyah University as a part-time assistant professor in chemistry and as full-time on February 4th, 2018. I am currently an Associate Professor in chemistry and the Head of Basic and Applied Sciences Department at the College of Applied and Health Sciences (CAHS). In my current position, I am responsible for leading and managing the department, which consists of 13 academic staff members and 5 lab technicians. This position carries a range of major leadership, operational and strategic responsibilities. It involves managing academic staff, working load distributions, courses offering, developing new programs, developing curriculum, research, developing collaborative networks within and beyond the university, etc.

Furthermore, I serve as a chair or member on several committees at the college and university levels. In 2018/2019, I served as a chair of University Research and Enterprise Committee (UREC), and I played a leadership role in promoting research capacity at ASU through the establishment of the annual event "ASU Research Day" which gives ASU researchers and students the opportunity to share and discuss their research outputs. Since June 2020, I have been acting as the chairperson of the University Research Ethics and Biosafety Committee (UREBC). At college level, I have been chairing the College Research and Enterprise

Committee (CREC) since Fall 2019, and I was the chair of College Community Services Committee in the academic year 2018/2019. Moreover, I am a member on the College Academic Board (CAB) as well as on other college committees where I have effective participation and input. For example, as a chair of CREC, the committee members and I manage all research-related matters, update college staff and students with national and international research-based activities and encourage them to take part in these activities.

Among my contributions to the local community, I have been working as a member of the National Diploma Examination Committee at the Ministry of Education since 2018. I have also participated as a member in the national group of Chemistry Olympiad. In addition, I provide consultancy to school students, teachers, and chemistry course inspectors and evaluate postgraduate study tools for several students from national and international institutions.

Through my career in teaching, I have taught several chemistry courses in both languages (Arabic and English) at the undergraduate level. I treat my students with respect and courtesy and have the highest expectations. Most of my teaching is based on a research-led approach to bridge theory with practice, provide new insights, and address students' inquiries. I always display a solid commitment to my students in guiding them through the course curriculum to achieve consistency between the learning outcomes and the assessments. I am always available during my office hours for students who need to get more information or discuss the course content. I received the Award of Best Academic Advisor on May 2024.

Besides, I have demonstrated unabated enthusiasm, commitment, and passion for research since I joined ASU. I received the Best Researcher Award from ASU on 2019 and an Honorarium Award during the 3rd Third Arab Female Innovators Forum on April 29, 2024, as a recognition of my excellent research endeavors. My research interests are in the areas of Organometallic Polymers, New Materials and Coordination Chemistry. The multi-disciplinary research focusses on the design, synthesis, characterization, structure/electronic property relationships and photo-physical measurements of new materials. The materials can harvest solar energy to generate electricity and are suitable for solar cell applications. High quality solar energy research is of strategic importance to Oman. I have started building up my research lab in the college by utilizing the received external and internal research grant funds. Currently, I am acting as principal investigator of two Research Grant (RG) Projects funded by Ministry of Higher Education, Research and Innovation (MoHERI). I am also acting as Co-PI, Co-I, or supervisor in other on-going projects. My research on materials science has generated 27+ strong publications in high impact international journals, one book chapter, 4 conference proceedings and 17 abstracts in major international conferences promoting ASU's standing in research internationally. To improve research quality and increase the quantity of scientific publications, I have conducted several collaborative research visits. During my PhD, I visited Bath University where I worked with Prof. Paul R. Raithby and his research team and learned the skills of X-ray crystallography. In addition, I have worked with Dr. Jonathan Skelton at the same university in DFT calculations. After my PhD and since I joined ASU, I am visiting Prof.

Khan research lab at Department of Chemistry in SQU every summer break to conduct collaborative research work.

I am an editor in some of MDPI journals such as Polymers and Catalysis. I review papers on a regular basis for international journals such as journals of Royal Society of Chemistry (RSC), MPDI and Elsevier which are indexed in Web of Science (WoS) and Scopus. In addition, I serve as a member in Institutional Internal Evaluation Committee (IIEC) at ASU where I reviewed several research grant proposals.

- **EDUCATION**

October 4, 2016	**Ph. D in Chemistry** Sultan Qaboos University, Muscat, Oman**.** ***Dissertation Title*:** Design, Synthesis and Characterization of Some Novel Metalla-yne and Poly(metalla-yne) Material ***Supervisor*:** Prof. Muhammad S. Khan
March 25, 2006	**M.Sc. in Chemistry** Sultan Qaboos University, Muscat, Oman. ***Thesis Title***: Synthesis and Characterization of Pt(II) Di-ynes and Poly-ynes Incorporating Carbazole Spacers in the Backbone. ***Supervisor***: Prof. Muhammad S. Khan
2002/2003	**Bridging Postgraduate** Sultan Qaboos University, Muscat, Oman
October 28, 1997	**Bachelor of Education, Chemistry (major)/Physics (minor)** Sultan Qaboos University, Muscat, Oman
June 1993	**Secondary School Certificate, Science Division** Sumaya School, Ibra, Oman

- **EMPLOYMENT HISTORY**

Sep 2023 to date	Associate professor in chemistry, Department of Basic and Applied Sciences, College of Applied and Health Sciences, A'Sharqiyah University.
Sep 2021 to date	Head of Department (HOD), Department of Basic Science, College of Applied and Health Sciences, A'Sharqiyah University.

Feb 2018 to 2023	Assistant professor in chemistry, Department of Basic Science, College of Applied and Health Sciences, A'Sharqiyah University.
Sep 2017–Jan 2018	Assistant professor in chemistry (part time), Department of Basic Science, College of Applied and Health Sciences, A'Sharqiyah University
Sep 2016 –Jan 2018	Chemistry Inspector, Directorate-General for Human Resources Development, Ministry of Education, Oman
Sep 2012 –Aug 2016	• Ph.D Study leave (*Scholarship from Sultan Qaboos University)* • Research Assistant on-request, Internal Grant (IG/SCI/CHEM/13/01), 01/10/2013- 30/11/2013 (127 hours). • Research Assistant Full-time in ORG/TRC, Conjugated Organic and organometallic Polymers for Light Emitting Devices and Solar Cells (RC/SCI/CHEM/14/02), 01/09/2014-31/08/2016. • Teaching Assistant (TA) with the following duties: ✓ Marking and grading duties in Inorganic Chemistry I (CHEM 3311) with Prof. Muhammad S. Khan, Department of Chemistry, College of Science, Sultan Qaboos University (Sep 2012 – May 2016). ✓ Lab Instructor in Chemistry for Medicine (CHEM 2110) with Prof. Musa S. Shongwe, Department of Chemistry, College of Science, Sultan Qaboos University (Feb 2015 – May 2015). ✓ Tutorials for students in General Chemistry I (CHEM 2101) with Dr. Raid Abdel-Jalil, Department of Chemistry, College of Science, Sultan Qaboos University (Feb 2015 – May 2015). ✓ Lab Instructor and Marking Student Lab Reports in Inorganic Lab (CHEM 4415) with Dr. Muna Al Mandhary and Dr. Nawal Al Rasbi, Department of Chemistry, College of Science, Sultan Qaboos University (Sep 2013 – May 2015). ✓ Lab Instructor and Marking, General Chemistry I (CHEM 2101) with Dr. Raid Abdel-Jalil, Department of Chemistry, College of Science, Sultan Qaboos University (Sep 2012 – May 2013).
Sep 2009 –Aug2012	Chemistry Inspector, Directorate-General for Human Resources Development, Ministry of Education, Oman
Sep 2006 – August 2009	Chemistry teacher, Sumaya School for Basic Education (Grades 10-12), Ibra, Oman

September 2005 – August 2006	Senior Science Teacher, Seih Al-Afya School for Basic Education (Grades 5-10), Ibra, Oman
September 2002- August 2005	Master Study leave (*Scholarship from Ministry of Education*)
September 1998 – August 2002	Senior Science Teacher, Seih Al-Afya School for Basic Education (Grades 5-10), Ibra, Oman
September 1997 – August 1998	Science Teacher at Ibra Preparatory School, Ibra, Oman

- **UNIVERSITY TEACHING AND LEARNING**

List of Taught Courses AT ASU From Fall 2017 to Spring2024

Academic Year	Semester	Course Code	Course Title
2017/2018	Fall 2017	CHEM101	General Chemistry I
		CHEM181	General Chemistry I Lab
	Spring 2018	CHEM101	General Chemistry I
		CHEM181	General Chemistry I Lab
		CHEM201	Organic Chemistry I
		CHEM281	Organic Chemistry I Lab
	Summer 2018	CHEM102	General Chemistry II
		CHEM182	General Chemistry II Lab
2018/2019	Fall 2018	CHEM101	General Chemistry I
		CHEM181	General Chemistry I Lab
		CHEM101E	الكيمياء العامة
	Spring 2019	CHEM181	General Chemistry I Lab
		CHEM201	Organic Chemistry I
		CHEM281	Organic Chemistry I Lab
2019/2020	Fall 2019	CHEM101E	الكيمياء العامة
		CHEM181	General Chemistry I Lab
	Spring 2020	CHEM202E	الكيمياء التحليلية
		CHEM281	Organic Chemistry I Lab
	Summer 2020	CHEM101E	الكيمياء العامة
		CHEM102	General Chemistry II
2020/2021	Fall 2020	CHEM101E	الكيمياء العامة
		CHEM201	Organic Chemistry I
	Spring 2021	CHEM202E	الكيمياء التحليلية
2021/2022	Fall 2021	CHEM201E	الكيمياء العضوية
	Spring 2020	CHEM202E	الكيمياء التحليلية
2022/2023	Fall 2022	CHEM110	Green Chemistry
	Spring 2023	CHEM101	General Chemistry I

		CHEM111	Applied Chemistry
2023/2024	Fall 2023	CHEM101	General Chemistry I
		CHEM181	General Chemistry I Lab
		CHEM211	Inorganic Chemistry I
	Spring 2024	CHEM101	General Chemistry I
		CHEM181	General Chemistry I Lab
		CHEM102	General Chemistry II
		CHEM182	General Chemistry II Lab

Advising duties

Semester	Number of Students	Number of Students Under-probation
Spring 2018	9	1
Fall 2018	29	1
Spring 2019	28	0
Fall 2019	27	1
Spring 2020	25	0
Fall 2020	8	0
Spring 2021	4	0
Fall 2021	15	0
Spring 2022	18	0
Fall 2022	17	0
Spring 2023	15	2
Fall 2023	16	1
Spring 2024	14	1

Development of Curriculum

Course Code	Course Name	Remarks
CHEM101	General Chemistry I	In Fall 2018, we modified the lecture materials and prepared a handbook for the student to be used along with the course textbook.
CHEM181	General Chemistry I Lab	I have modified the lab manual by Spring 2018.
CHEM102	General Chemistry II	In summer 2018, I restructured this course by modifying the lecture materials and preparing a student handbook. The student can study from the handbook along with the course textbook.

CHEM201	Organic Chemistry I	In Spring 2019, we have totally restructured this course by modifying the lecture materials and preparing a student handbook. The student can study from the handbook along with the course textbook. As part of E-learning, I have introduced online quizzes using the Moodle. The student is graded immediately at the end of the quiz.
CHEM101E	الكيمياء العامة	This course was first taught by Fall 2018. Dr. Thuraya and I structured the theoretical course materials along with a handbook (in Arabic language) for the students. Some Arabic written chemistry textbooks have been recommended to be provided in the University library for the students. We have also prepared the lab manual with different experiments that are related to the theoretical part of the course. In Spring 2020, with help of lab technicians (Mr. Abdul-Malik & Mr. Khalid Al Hashimi), we have successfully prepared recorded demo videos of the course practical experiments and the video links have been uploaded in the Moodle for the students.
CHEM202E	الكيمياء التحليلية	This course was first taught by Spring 2020. Dr. Thuraya and I structured the course materials along with a handbook (in Arabic language) for the students. Some Arabic written chemistry textbooks have been recommended to be provided in the University library for the students. We have also prepared the lab manual with different experiments that are related to the theoretical part of the course. In Spring 2020, with help of lab technicians (Mr. Abdul-Malik & Mr. Khalid Al Hashimi), I have successfully prepared recorded demo videos of the course practical experiments and the video links have been uploaded in the Moodle for the students.
CHEM201E	الكيمياء العضوية	This course was first taught by Fall 2019. Dr. Thuraya and I structured the course materials along with a handbook (in Arabic language) for the students. Some Arabic written chemistry textbooks have been recommended to be provided in the University library for the students. We have also prepared the lab manual with different experiments that are related to the theoretical part of the course. In Fall 2020, with help of lab technicians (Mr. Abdul-Malik & Mr. Khalid Al Hashimi), we have successfully prepared recorded demo videos of the course practical experiments and the video links have been uploaded in the Moodle for the students. In Fall 2021, the theoretical course material has been modified with extra practice problems along with the model answers. In addition, the lab reports have been restructured.
CHEM110	Green Chemistry	This course is one of the Industrial chemistry program courses which is offered on Fall 2022 for the first time. I

		have structured the curriculum of this course in which I have involved active learning methods and class activities. Several case studies are used during the lecture or as pre-reading tasks to encourage student discussions. In this course, the students will be able to write a scientific report of a certain environmental related case or project and present it to their instructor and peers. In this course the following has been taken into account: • Utilizing latest research in certain topic or field in classroom teaching • Teaching students to design small scale projects and writing scientific report/proposal. • Teaching research methods, techniques and skills. • Building small-scale research activities into undergraduate assignments.
CHEM111	Applied Chemistry	This course is offered by the Basic Science Department for engineering students. I have structured the curriculum of the theoretical and practical part of this course in which I have involved active learning methods and class activities.
CHEM211	Inorganic Chemistry	This course is one of the Industrial chemistry program courses which is first offered in Fall 2023. I have structured the curriculum of this course in which I have involved active learning methods and class activities.

PhD Supervision

I serve as a member in the Advisory Committee of the following PhD student:

Student Name	PG Program	Thesis title	Name of University	Status	Supervisor
Najat Al Riyami (89442**)**	PhD in Chemistry	Synthesis and Luminescence Studies of Lanthanide(III) Assemblies for OLED Applications	Sultan Qaboos University	On-going (started Sep 2022)	Dr. Nawal Al Rasbi

Post-Graduate (PG) Thesis Examination

As External Examiner

Examination Date	Student Name	PG Program	Name of University	Research Title
Dec 16, 2019	Anwaar Al-Maqbali	MSc in Chemistry	Sultan Qaboos University	Synthesis and Phase Transition Behavior of a Novel Series of Fluorinated Organosiloxane Liquid Crystals
Dec 24, 2020	Khadija Al Yahmedi	MSc in Chemistry	Sultan Qaboos University	Synthesis and Characterization of Copper(I) Complexes of Pyrazole and

				Benzotriazole-Derived Ligands for Electroluminescence Applications
May 25, 2021	Houda Al Sharji	MSc in Chemistry	Sultan Qaboos University	Copper(I) and Cadmium Complexes of 1-Substituted Benzotriazole and Pyrazole Ligands: Structural and Photophysical Properties
Aug 25, 2021	Najat Al Riyami	MSc in Chemistry	Sultan Qaboos University	New Ln(III) Complexes with Schiff-Base and Diketone ligands: Synthesis, Photophysical Properties and Applications in LED.

- **SCHOLARLY ACHIEVEMENTS AND SCIENTIFIC CONTRIBUTIONS**

Online Research Profile

Open Researcher and Contributor ID (ORCID)

Rayya Al Balushi (0000-0002-5665-5175) - ORCID

Access Date	ORCID ID
June 25, 2024	https://orcid.org/0000-0002-5665-517

Web of Science (WoS)

Balushi, Rayya Al - Web of Science Core Collection

Access Date	Researcher ID	Publications	Sum of Times Cited	h-index
June 25, 2024	**U-8926-2019**	**23**	**454**	**10**

Scopus

Scopus preview - al-Balushi, Rayya A. - Author details - Scopus

Access Date	Researcher ID	Publications	Citations	h-index
June 25, 2024	**55681768900**	**24**	**459**	**10**

Google Scholar

Rayya Al Balushi - Google Scholar

Access Date	Citations	h-index	i10-index
June 25, 2024	**549**	**11**	**12**

Research Gate

(8) Rayya Al-Belushi (researchgate.net)

Access Date	Research Interest Score	Citations	h-index
June 25, 2024	**273.3**	**501**	**11**

Patent

Mohammad Changej, **Rayya Al Balushi** (Filing date: January 4, 2021), A Smart Nano-Hollow Bag for Waste Management Especially for Fused Polynuclear Aromatic Hydrocarbon and Control of Environmental Pollution, U.S.A Patent Application Number: 63133476, A'Sharqiyah University, Ibra, Oman.

Research Grants

Duration	**Project Title (ID)**	**Budget (OMR)**	**Funding Agency**	**Status**
As Principal Investigator (PI)				
01/12/2022 -30/11/2024	Acetylide-Functionalized Hybrid Metal Complexes as Electrocatalysts for CO_2 Reduction (BFP/RGP/EI/22/229)	20,000	MoHERI	On-going
01/11/2020-30/04/2023	Frankincense Oil/Omega Fatty Acid Oil based Nano-emulsion for Transdermal Delivery of Anti-Cancer Drugs for Treatment of Breast and Skin Cancer (BFP/RGP/HSS/20/105)	20,000	MoHERI	completed
31/07/2019-30/07/2021	Copper(I) complexes of Acetylide-Functionalized Pyridine Ligands for Opto-Electronic Applications (BFP/RGP/EI/18/076)	2,700	MoHERI	Completed
19/06/2019-18/06/2021	Synthesis and Characterization of Copper(1) complexes for Opto-Electronic Application, RO 1000 (ASU-FSFR/CAS/BS-01/2019)	1000	ASU	Completed
As Principal Investigator (Co-PI)				
2022	Synthesis and characterization novel reusable sensing probs based on magnetic nanoparticles decorated with Ru(II) complexes for future medical application (BFP/RGP/EBR/22/016)	20,000	MoHERI	Rejected
01/12/2021-30/11/2023	Utilization of produced water as a growth medium for algae cultivation and biofuel production (BFP/RGP/EBR/21/224)	20,000	MoHERI	Completed
31/07/2019-30/07/2021	Smart Homopolymer Nano-Bag for Removal of Fused Poly-Nuclear Aromatic Hydrocarbons from Environments and its Re-utilization for Organic Electronics. (BFP/RGP/EBR/18/077)	3,800	MoHERI	Completed
As Co-I				
2023	Temperature management in data magnetic storage memory nanodevices (BFP/RGP/ICT/23/032)	18,340	MoHERI	On-going

2024	Unravelling Novel and Rare Beta Globin Gene Variants in Hemoglobinopathies through Next-Generation Sequencing in A 'Sharqiyah North Governate, Oman	20,000	MoHERI	Submitted
2024	Synthesis, Characterization of Magnetic/Polymer composite NPs and effective demulsification and remediation of petrochemical-originated pollutants	20,000	MoHERI	Submitted
As Supervisor				
2022-2024	Metal-based Materials for Light Emitting Diode (LED) Applications (BFP/GRG/EI/22/089)	3000	MoHERI	On-going
2022-2023	Treatment of Wastewater by E- Nephron (URG)	1500	MoHERI	Rejected
As a Member/Coordinator/RA				
28/09/2018-27/09/2021	Harvesting Solar Energy Using Conjugated Organic and Organometallic Poly-ynes. (EG/SQU-BP/SCI/CHEM/19/01)	20,000	BP	Completed
2016-2020	New Transition and Lanthanide Metals-based Hybrid Materials for Opto-Electronic (O-E) Applications. (SR/CHEM/16/02)	85000	MoHERI	Completed
2014-2017	Conjugated Organic and Organometallic Polymers for Opto-Electronic Application. (ORG/EI/SQU/13/015)	234400	MoHERI	Completed

Publications

Journal papers

- ***Journal Papers (After PhD)***

1. Nisar Ali, Sumeet Malik; Adnan Khan, Seemran Kianat, Sobia Ghazal, Sawer, Benish Salim, Mohamed Bououdina, Arif Nawaz, Sohail Khan, Rayya Ahmed Al Balushi, Mohammad M. Al-Hinaai, Robust Regenerable Selenide-Chitosan Biopolymer nanocomposites Design fabrication to Photocatalytic applications for the effective removal of Bromothymol Blue (BB) from Wastewater. *Journal of Molecular Structure*, June 2024 (**Submitted**)(IF: 3.8).

   Role*: literature survey, writing and review.*

2. Nisar Ali, Mahnoor Amjad, Adnan Khan, Arif Nawaz, Sumeet Malik, Nauman Ali, Humayun Khan, Rayya Ahmed Al Balushi, Mohammad M. Al-Hinaai, Thuraya Al-Harthy. Innovative sustainable copper sulfide cross-linked chitosan microsphere photocatalyst by advanced oxidation process validated by response surface methodology RSM, *Materials Chemistry and Physics*, June 2024 (**Submitted**)(IF: 4.6).

   Role*: literature survey, writing and review.*

3. Nisar Ali, Muhammad Ali, Master; Farooq Nawaz, Master; Adnan Khan, Farman Ali, Muhammad Hamid Khan, Sidra, Shakeel Ahmad, Suhaib Rahman, Arif Nawaz, Rayya

Ahmed Al Balushi, Mohammad M. Al-Hinaai, Thuraya Al-Harthy, Scaffolds of Chitosan-metallic hybrids as antimicrobial wound dressing, *Carbohydrate Polymers*, June 2024 (IF: 11.2). (**Submitted**)

Role*: literature survey, writing and review.*

4. Ashanul Haque, **Rayya A. Al-Balushi**, Khalaf M. Alenezi, Linli Xu, Miao Zhang, Muhammad S. Khan, Wai-Yeung Wong, Paul R. Raithby, Metalloid-Bridged π-Conjugated materials: Emerging Trends and Applications, *Topics in Current Chemistry,* 2024 (Ready for submission) (**IF: 8.6**)

   Role: *Conceptualization, literature survey, writing original draft.*

5. Ali; Hamayun Khan; Baz Muhammad Khan; Khan Malook; Adnan Khan; Rayya Ahmed Al Balushi; Mohammad M. Al-Hinaai; Thuraya Al-Harthy, Pterospermum acerifolium leaves, PAL and innovative adsorbent for the efficient agricultural waste biomass for removal of noxious bromophenol blue, *Environmental Science and Pollution Research* (May 9, 2024) (**Submitted**) (IF: 5.2)

   Role*: literature survey, writing and review.*

6. Hajar Zaidan Khalaf Alshammari; Houcine Ghalla; **Rayya A. Al Balushi**; Khalaf M. Alenezi; Ashanul Haque, Experimental and theoretical investigations on hydrogen evolution reaction (HER) abilities of some salphen and salen complexes", *Chemistry Africa*, April 2024 (**submitted**) (**IF: 2.6**)

   Role: *literature survey, writing and review.*

7. **Rayya A. Al-Balushi**, Aiswarya Chaudhuri, Raghuram Kandimalla, Ashanul Haque, Khalaf Alenezi, Mohd. Saeed, Mohammad Changez, Thuraya Al Harthy, Mohammed Al Hinaai, Samra Siddiqui, Ashish Kumar Agrawa, Farrukh Aqil, Frankincense oil-based nanoemulsion for the treatment of breast cancer, *Front. Pharmacol. -Ethnopharmacology*, April 2024 (***Submitted***) (**IF: 6.3**)

   Role: *Corresponding author*

8. Nisar Ali, Ibrahim Khan, Zhang Jing, Adnan Khan, Farman Ali, Abdul Kareem, Yangshuo Sun, Rayya Ahmed Al Balushi, Mohammad M. Al-Hinaai, Thuraya Al-Harthy, Arif Nawaz, Fawad Khan, Biopolymer-carbonaceous composites, progress, and adsorptive mitigation of water pollutants, *International Journal of Biological Macromolecules*, June 25, 2024 (**accepted**) (**IF: 8.2**).

   Role: *literature survey, writing and review.*

9. Nisar Ali, Fawad Khan, Wang song, Ibrahim Khan, Abdul Kareem, Suhaib Rahman, Adnan Khan, Farman Ali, **Rayya Ahmed Al Balushi**, Mohammad M. Al-Hinaai, Arif Nawaz, Robust polymer hybrid and assembly materials from structure tailoring to efficient catalytic remediation of emerging pollutants, *Chemosphere*, 2024, 142408, (DOI: https://doi.org/10.1016/j.chemosphere.2024.142408) **(IF: 8.8).**

   Role: *writing and review.*

10. **Rayya A. Al-Balushi**, Ashanul Haque, Mohd. Saeed, Thuraya Al Harthy, Mohammed Al Hinaai, Salim Al Hashmi, Unlocking the Anticancer Potential of Frankincense Essential Oils (FEOs) Through Nanotechnology: A Review, *Molecular Biotechnology*, November 2023, 65(11). [DOI: https://doi.org/10.1007/s12033-023-00918-5] (**IF: 2.86**)

    Role: *Corresponding author.*

11. Mohammed M Al Hinaai, **Rayya Al Balushi**, Mohammed Al Bahri and Thuraya Al Harthy, Suitable Catalysts for Electrosynthesis of Ammonia as Green Hydrogen Storage, *Journal of Environmental and Soil Sciences (OAJESS)*, 6(5),885-889 (DOI: http://dx.doi.org/10.32474/OAJESS.2023.06.000246) (**IF: 0.462**)
    lupinepublishers.com/environmental-soil-science-journal/pdf/OAJESS.MS.ID.000246.pdf

    Role: *Writing a section, review and editing.*

12. **Rayya A. Al-Balushi**, Idris Juma Al-Busaidi, Ashanul Haque, Md. Serajul Haque Faizi, Necmi Dege, M. S. Khan,Tarek A. Mohamed. Synthesis, structural, photo-physical properties and DFT studies of some diarylheptanoids, *Journal of Molecular Structure*, 2022, 1264, 2022, 133254. (https://doi.org/10.1016/j.molstruc.2022.133254) (**IF: 3.169**)

    Role: *Conceptualization, Formal analysis, Writing original draft*

13. Mohammad Changez, Mohammad Faiyaz Anwarb, Said Al-Ghenaimea, Sumeet Kapoorc, **Rayya Al- Balushi**, Antara Chaudhurid, Synergic Effect of *Ocimum Sanctum and Trigonella Foenum-graecum L* Water Extract on *In-Situ* Green Synthesis of Silver Nanoparticles and as an Anti-agent for Antibiotic Resistant Food Spoiling Organism, *RSC Adv.*, 2022,12, 1425-1432 (DOI: https://doi.org/10.1039/D1RA08098A) (**IF: 3.36**)

    Role: *Analysis of results, review and editing*

14. **Rayya A. Al-Balushi**, Ashanul Haque, Idris J. Al-Busaidi, Houda Al Sharji, Muhammad S. Khan, Heterometal grafted metalla-ynes and poly(metalla-ynes): A review on structure property relationships and applications, *Polymers*, 13(21), 2021. (DOI: https://doi.org/10.3390/polym13213654) (**IF: 4.329**)

    Role: *Writing original draft, visualization, review and editing*

15. Mohammad Changez, Mohammad Faiyazanwar, Rafia Khatoon, Thuraya Al-Harthy, Mohammed Al-Hanaai, **Rayya Al Balushi**, Controlled release of vancomycin hydrochloride from biopolymer based hydrogels, International Journal of Latest Trends In Engineering And Technology, 2021, 19(4), 035-046; Doi: http://dx.doi.org/10.21172/1.194.04 (https://www.ijltet.org/pdfviewer.php?id=972&j_id=5022)

    Role: *Analysis of results, review and editing*

16. **Rayya A. Al Balushi**, Ashanul Haque, Thuraya Al Harthy, Muhammed Al Hinaai and Mohammad S. Khan, Conjugated Pt(II) Poly-ynes for Opto-electronic Applications, Annals of Chemical Science Research (ACSR), 28 June 2021, 2(4), Doi: http://dx.doi.org/10.31031/ACSR.2021.02.000542 **(IF: 0.779)**

    Role: *Corresponding author*

17. Idris Juma Al-Busaidi, Ashanul Haque, **Rayya Al-Balushi**, Jahangir Ahmad Rather, Abdul Munam, Paul R. Raithby, Rashid Ilmi, Youming Zhang, Muhammad S. Khan, Jonathan M. Skelton, Wai-Yeung Wong, Shuming Chen, Zahin Ibnat, Shahidul M Islam, Synthesis, characterization, and optoelectronic properties of phenothiazine-based organic co-poly-ynes, *New Journal of Chemistry*, 2021, 45(33), 15082-15095. Doi: https://doi.org/10.1039/D1NJ00925G). **(IF: 3.591)**

    Role: *Data curation, formal analysis, review and editing*

18. Idris Juma Al-Busaidi, Ashanul Haque, John Husband, Nawal K. Al-Rasbi, Osama K. Abou-Zied, **Rayya Al Balushi**, Muhammad S. Khan, Paul R. Raithby, Electronic and steric effects of Pt(II) di-ynes and poly-ynes substituents on photo switching behavior of stilbene: Experimental and theoretical insight, *Dalton Trans.*, 2021, 50, 2555–2569. Doi: https://doi.org/10.1039/D0DT03502E (**IF: 4.174**)

    Role: *Methodology (synthesis and characterization), review and editing.*

19. Haque, Ashanul; **Al Balushi, Rayya**; Al-Busaidi, Idris ; Al-Rasbi, Nawal; Al-Bahri, Sumayya; Al-Suti, Mohammed; Abou-Zied, Osama; Khan, Muhammad S.; Skelton, Jonathan; Raithby, Paul, Two is Better Than One? Investigating the Effect of Incorporating $Re(CO)_3Cl$ Side-Chains into Pt(II) Di-ynes and Poly-ynes, *Inorg. Chem.*, 2021, 60, 2, 745–759. Doi: https://doi.org/10.1021/acs.inorgchem.0c02747 (**IF: 4.825**)

    Role: *Conceptualization, methodology (synthesis and characterization), writing original draft*

20. **Rayya A. Al Balushi**, Md. Serajul Haque Faizi, Ashanul Haque, Muhammad S. Khan, Kieran Molloy, Paul R. Raithby, Synthesis and structural characterization of hexa-μ2-

chlorido-μ4-oxido-tetra-kis-{[4-(phenyl-ethyn-yl)pyridine-κN]copper(II)} di-chloro-methane monosolvate, *Acta Crystallogr. E*, 2020, 77(1), 42-46. Doi: https://doi.org/10.1107/S2056989020015935 (**IF: 0.367**)

Role: *Conceptualization, methodology (synthesis and characterization), writing original draft*

21. Changez, Mohammad; Anwar, Mohammad; **Al Balushi, Rayya**, Jae-Suk Lee, Solution State Long Range Molecular Order in Poly(3-Hexylthiophene), *Langmuir*, 1 September 2020, 36(37), 11028–11033. DOI: https://doi.org/10.1021/acs.langmuir.0c01876 **(IF: 3.557)**

    Role: *Sample preparation for characterization, review and editing.*

22. Ashanul Haque ,**Rayya A. Al-Balushi**, Paul R. Raithby Muhammad S. Khan , Recent Advances in π-Conjugated N^C-Chelate Organoboron Materials, *Molecules*, 2020, 25(11), 2645. DOI: https://doi.org/10.3390/molecules25112645 **(IF: 3.06**)

    Role: L*iterature survey, writing original draft.*

23. Haque, A. Xu, L., **Al-Balushi, R. A**., Al-Suti, M. K., Ilmi, R., Guo, Z., Khan, M. S., Wong, W. Y., Raithby, P. R., Cyclometalated Tridentate Platinum(II) Arylacetylide Complexes: Old Wine in New Bottles, *Chem. Soc. Rev*. 2019, 48 (23), 5547-5563. Doi: 10.1039/C8CS00620B. **(IF: 40.443**).
    URL: https://pubs.rsc.org/en/content/articlelanding/2019/cs/c8cs00620b

    Role: L*iterature survey, writing original draft.*

24. Ashanul Haque, **Rayya A. Al-Balushi**, Muhammad S. Khan, σ-acetylide Complexes for Biomedical Applications: Features, Challenges and Future Directions, *J. Organomet. Chem.*, 2019, 897, 95-106. DOI: https://doi.org/10.1016/j.jorganchem.2019.06.026 (**IF: 2.066)**.

    Role: *Literature survey, writing original draft.*

25. Haque, A., **Rayya A. Al Balushi**, R. A., Al-Busaidi, I. J., Ilmi, R., Al Rasbi, N., Jayapal, M., Khan, M. and Raithby, P. R, Synthesis, optical spectroscopy, structural, and DFT studies on dimeric iodo-bridged Copper (I) complexes, *J. Organomet. Chem*., 2019, 892, 75-82, Doi: https://doi.org/10.1016/j.jorganchem.2019.04.017 (**IF: 2.066)**.

    Role: *Methodology (synthesis and characterization), writing original draft.*

26. Ashanul Haque, **Rayya A. Al-Balushi**, Idris Juma Al-Busaidi, Muhammad S. Khan, and

Paul R. Raithby, Rise of Conjugated Poly-ynes and Poly(Metalla-ynes): From Design Through Synthesis to Structure–Property Relationships and Applications, *Chem. Rev*. 2018, 118, 18, 8474-8597. Doi: 10.1021/acs.chemrev.8b00022(**IF: 52.6**)

Role: *Conceptualization, literature survey, writing original draft.*

27. Jayapal, Maharaja; Haque, Ashanul; Al-Busaidi, Idris ; Al-Rasbi, Nawal; **Al Balushi, Rayya**; Al-Suti, Mohammed; Khan, Muhammad; Islam, Shahidul; Xin, Chenghao; Wu, Wenjun; Wong, Wai-Yeung; Marken, Frank; Raithby, Paul, Dicopper(I) Complexes Incorporating Acetylide-functionalized Pyridinyl-based Ligands : Synthesis, Structural and Photovoltaic Studies, *Inorg. Chem*. 2018, 57, 19, 12113-12124. Doi: https://doi.org/10.1021/acs.inorgchem.8b01684 (**IF: 4.7**)

Role: *Analysis, review and editing.*

28. Jayapal, M.; Haque, A.; Al-Busaidi, I. J.; **Al-Balushi, R. A**.; Al-Suti, M. K.; Islam, S. M.; Khan, M. S.; Dittmer, J. J., Synthesis and characterization of a thienopyrazine-based low band-gap poly(arylene ethynylene) and photocell studies of the poly-yne/perylene dye blend with broad photocurrent spectrum, *Curr. Org. Chem.*, ***2017***, *21*, 2017-2027. Doi: https://doi.org/10.2174/1385272821666170420152645 (**IF: 2.19**)

Role: *Methodology (synthesis and characterization), analysis, review and editing.*

29. Jayapal, M.; Haque, A.; Al-Busaidi, I. J.; **Al-Balushi, R. A**.; Al-Suti, M. K.; Islam, S. M.; Khan, M. S., Synthesis, characterization and photocell studies of a Pt(II) poly-yne covalently attached to a fullerene, *J. Organomet. Chem.* **2017**, 842, 32-38. Doi: https://doi.org/10.1016/j.jorganchem.2017.05.012 (**IF: 2.2**)

Role: *Methodology (synthesis and characterization), analysis, review and editing.*

30. **Al-Balushi, R. A.**; Haque, A.; Jayapal M.; Al-Suti M. K.; Husband, J.; Khan, M. S.; Koentjoro, O. F.; Skelton, J. M.; Molloy K. C.; Raithby, P. R., Impact of the Alkyne Substitution Pattern and Metalation on the Photoisomerization of Azobenzene-Based Platinum(II) Diynes and Polyynes, I*norg*. *Chem*. **2016**, *55* (21), 10955–10967, Doi: https://doi.org/10.1021/acs.inorgchem.6b01509 (**IF: 4.7**)

Role: *Methodology (synthesis and characterization), analysis, writing original draft, review and editing.*

❖ ***Journal publications (during PhD)***

31. Khan, M. S.; Al-Suti, M. K.; Jayapal, M.; Haque, A.; **Al-Balushi, R. A.**; Raithby, P. R., *J.* Conjugated poly-ynes and poly(metalla-ynes) incorporating thiophene-based spacers for

solar cell (SC) applications, Organomet. *Chem.* **2016,** *812*, 13-33, Doi: https://doi.org/10.1016/j.jorganchem.2015.10.003 (**IF: 2.2**)

Role: *Literature survey, writing original draft, review and editing.*

32. **Al-Balushi R. A**.; Haque, A.; Jayapal, M.; Al-Suti, M. K.; Husband, J.; Khan, M. S.; Koentjoro, O. F.; Molloy, K. C.; Skelton, J. M.; Raithby, P. R.; Experimental and Theoretical Investigation for the Level of Conjugation in Carbazole-Based Precursors and Their Mono-, Di-, and Polynuclear Pt(II) Complexes, *Inorg. Chem*. **2016**, *55* (13), 6465-6480, Doi: https://doi.org/10.1021/acs.inorgchem.6b00523 (**IF: 4.7**)

    Role: *Methodology (synthesis and characterization), analysis, writing original draft, review and editing.*

33. Shah, H. H.; **Al-Balushi, R. A**.; Khan, M. S.; Ferrocenylethynyl-A Versatile Platform for New Molecules to Novel Materials, *SQU Journal for Science*, **2014**, 19(1), 15-42 Doi: https://pdfs.semanticscholar.org/12cf/431ce64302599d52fd209f53262aa6cc5b00.pdf

    Role: *Literature survey, writing, review and editing.*

34. Shah, H. H.; **Al-Balushi, R. A**.; Al-Suti; M. K., Khan, M. S.; Marken, F.; Sudlow, A.L., Kociok-Köhn, G., Woodall, C. H.; Raithby, P.R.; Molloy, K. C., New di-ferrocenyl-ethynylpyridinyl triphenylphosphine copper halide complexes and related di-ferricenyl electro-crystallized materials, *Dalton Trans*., **2014**, 43(25), 9497-9507. Doi: https://doi.org/10.1039/C3DT52914B (**IF: 4.1**)

    Role: *Methodology (synthesis and characterization), analysis, review and editing.*

35. Shah, H. H.; **Al-Balushi, R. A**.; Al-Suti, M. K.; Khan, M. S.; Woodall, C. H.; Molloy, K. C.; Raithby, P.R.; Robinson, T. P.; Dale, S. E. C.; Marken, F., Long-Range Intramolecular Electronic Communication in Bis(ferrocenylethynyl) Complexes Incorporating Conjugated Heterocyclic Spacers: Synthesis, Crystallography, and Electrochemistry, *Inorg. Chem.*, **2013**, *52* (9), 4898–4908. Doi: https://doi.org/10.1021/ic3024887 (**IF: 4.8**)

    Role: *Methodology (synthesis and characterization), analysis, review and editing.*

36. Shah, H. H.; **Al-Balushi, R. A**.; Al-Suti, M. K.; Khan, M. S.; Woodall, C. H.; Sudlow, A. L.; Raithby, P. R.; Kociok-Köhn, G.; Molloy, K. C.; Marken, F., New Multi-Ferrocenyl- and Multi-Ferricenyl- Materials via Coordination-Driven Self-Assembly and via Charge-Driven Electro-Crystallization, *Inorg. Chem.*, **2013**, 12012-12022, Doi: https://doi.org/10.1021/ic401803p (**IF: 4.8**)

Role: *Methodology (synthesis and characterization), analysis, review and editing.*

❖ ***Journal paper before PhD***

37. Al-Suti, M. K.; **Al-Balushi, R. A**.; Khan, M.S.; Zhang, N.; Hayer, A.; Köhler, A.; The effect of delocalization on the exchange energy in meta- and para-linked Pt-containing carbazole polymers and monomers, *J. Chem. Phys.*, 2006, **124**, 244701. Doi: https://doi.org/10.1063/1.2200351 (**IF: 2.9**)

Role: *Methodology (synthesis and characterization), analysis and writing original draft.*

Books

Al Rasbi, Nawal. (2021). Fundamentals of Chemistry. Amal Al Sabahi, **Rayya Al Balushi**, Emad A. Khudaish, Osama Abou-Zied, Bushra Al Wahibi (Eds). Muscat: Sultan Qaboos University (ISBN: 978-99969-4-787-2).

Book Chapter

Ashanul Haque, **Rayya A. Al-Balushi**, Paul R. Raithby and Muhammad S. Khan, Recent Advances in π-Conjugated N^C-Chelate Organoboron Materials, Boron in Catalysis and Materials Chemistry: A Themed Issue in Honor of Professor Todd B. Marder on the Occasion of His 65th Birthday, Ashok Kakkar (Ed.), MPDI, 28 June 2021, p.7-28. http://www.mdpi.com/books/pdfview/book/3944
Role: *Literature survey, review and editing.*

Conference Proceedings

1. **Rayya A. Al Balushi**, Ashanul Haque, Mohammad S. Khan, Conjugated Poly(platinayne)s for New Materials Applications, 4th International Conference on Nanomaterials Science and Mechanical Engineering (ICNSME 2021), University of Aveiro, Portugal, July 6-9, 2021 (publication: September 2021). icnmsme2021.web.ua.pt/wp-content/uploads/2021/10/Proceedings-book-ICNMSME-2021.pdf, or http://icnmsme2021.web.ua.pt/

2. **R. A. Al-Balushi**, A. Haque, T. S. Al Harthi, M. S. Khan and P. Raithby, Mixed-Metal Acetylide Complexes for Opto-Electronic Applications, International Gas Union Research Conference 2020 (IGRC 2020), 24-26 February 2020, Oman Convention & Exhibition Centre, Muscat, Oman.

3. M.S. Khan, J. Maharaja, M.K. Al-Suti, A. Haque, **R. Al Balushi**, J.J. Dittmer and R.H. Friend, Photocell Studies of a Low Band-gap Blue Polymer/Perylene Dye Blend, 8th

International Conference on Materials Science & Technology, (IMS/8), American University, Sharjah, UAE, 2016, 46-49.

4. M.S. Khan, **R. Al Balushi**, A. Haque, J. Maharaja and M.K. Al-Suti, New Pt(II) Poly-ynes Incorporating Azobenzene and Carbazole Spacers, 8th International Conference on Materials Science & Technology, (IMS/8), American University, Sharjah, UAE, 2016, 54-57

Conference Presentations (Abstracts)

1. Rayya Al Balushi, Ahsanual Haque, Thuraya Salim Al Harthi, Mohammed M. Al Hinaai, Muhammad S. Khan, Acetylide-Functionalized Hybrid Metal Complexes as Electrocatalysts for CO_2 Reduction, *9th EuChemS Chemistry Congress (ECC-9 (PP),* 7-11 July 2024, Dublin, Ireland.

2. **Al Balushi R. A**., Haque A., Al Harthi T. S., Al Hinaai M., Al Haimli A., Al Maskari A., Khan M. S., Synthesis and Characterization of Metal-based Materials for Opto-electronic Applications, *8th International Symposium on Dielectric Materials and Applications (ISyDMA'8*) (OP), 12 May – 16 May 2024, Florida, USA (Hybrid).

3. **Rayya Al Balushi**, Metalla-ynes and Poly(metallayne)s: Synthesis, Photophysical Properties and Opto-electronic Applications, *16th International Conference on Materials Chemistry (MC16)* (PP), 3 - 6 July 2023, Dublin, Ireland (Hybrid).

4. **Rayya A. Al Balushi**, Ashanul Haque and Muhammad S. Khan, Metalla-ynes and Poly(metallayne)s: Synthesis, Characterization and Opto-electronic Applications, 3rd Advanced Materials Science World Congress "Anticipating Future Trends, New Insights, and Cutting-Edge Technologies in Materials Science and Engineering" (Adv. Materials Science 2022) (OP), 21-23 March, 2022, UK (ONLINE).

5. **Rayya A. Al Balushi**, Ashanul Haque and Muhammad S. Khan, Metal Based Materials for Opto-electronic Device Applications, 2022 #RSCPoster Twitter Conference (PP), 1-2 March 2022.

6. **Rayya A. Al Balushi**, Ashanul Haque and Muhammad S. Khan, Poly-ynes and Poly(metallayne)s: Synthesis and Photophysical Properties, 2nd International Conference and Exhibition on Polymer Science and Technology (Polymer Science-2021) (OP), September 27, 2021, France (ONLINE).

7. **Rayya Al Balushi**, Conjugated Poly-yne and Poly-metallayne Materials: Synthesis and Characterization, *5th International Conference on Biopolymers & Polymer Chemistry Conference (ICBPC 2021)* (OP), 23-25 September 2021, Italy (ONLINE)

8. **Rayya A. Al Balushi**, Idris J. Al-Busaidi, Ashanul Haque, Mohammad S. Khan, Paul Raithby, Photo-switch Properties of Stilbene and Azobenzene Based Pt(II) Alkynyl complexes, *15th International Conference on Materials Chemistry (MC15)* (OP), 12 - 15 July 2021 (ONLINE)

9. **Rayya A. Al Balushi**, Ashanul Haque, Mohammad S. Khan, Conjugated Poly(metalla-yne)s for New Materials Applications, *4th International Conference on Nanomaterials Science and Mechanical Engineering (ICNSME 2021)* (OP), University of Aveiro, Portugal, July 6-9, 2021 (ONLINE)

10. **R. A. Al-Balushi**, A. Haque, T. S. Al Harthi, M. S. Khan and P. Raithby, Mixed-Metal Acetylide Complexes for Opto-Electronic Applications, *International Gas Union Research Conference 2020 (IGRC 2020)* (OP), 24-26 February 2020, Oman Convention & Exhibition Centre, Muscat, Oman.

11. Muhammad S. Khan, Ashanul Haque, **Rayya A. Al Balushi,** Idris J. Al Busaidi, Functional Materials for Energy Storage and Conversion Devices (FESC) (OP), *International Conference on Advances in Functional Materials (AAAFM-UCLA)*, 19-22 August 2019, Carnesale Commons, Los Angeles, USA.

12. **Rayya A. Al Balushi***, Ahsanual haque, Idris J. Al Busaidi, Nawal Al Rasbi, Muhammed K. Al Suti, Mohammad S. Khan and Jonathan Skelton, Experimental and Theoretical studies of Pt(II) polyyne incorporating bipyridiyl spacer groups with $Re(CO)_3Cl$ as Pendant sidechain (OP), *14th International Conference on Materials Chemistry (MC14)*, 8 - 11 July 2019, Birmingham, United Kingdom.

13. **Rayya A. Al-Belushi,** Ashanul Haque, Muhammad S. Khan, Jonathan M. Skelton and Paul R. Raithpy, Platinum(II) di-ynes and poly-ynes incorporating azobenzene spacers, (OP) *SQU Chemistry Conference, Green and Sustainable Chemistry (GSCC2017),* Sultan Qaboos University, Oman, 13th – 15th November 2017.

14. Muhammad S. Khan, **Rayya A. Al-Belushi,** Ashanul Haque, Maharaja Jayapal and Mohamed Al Suti, New Pt(II) poly-ynes incorporating azobenzene and carbazole spacers, (OP) *8th International Conference On Materials Science and Engineering (IMS/8)*, American University of Sharjah, UAE, 2nd – 3rd February 2016.

15. **Rayya A. Al-Belushi** and Muhammad S. Khan**,** Pt(II) poly-ynes and Fc di-ynes incorporating azobenzene spacers, *12th International Conference on Materials Chemistry (MC12)* (PP), University of York, UK, 20th – 23rd July 2015.

16. Maharaja Jayapal, **Rayya A. Al-Belushi**, Ashanul Haque, Mohamed Al Suti and Muhammad S. Khan**,** fullerene-linked Pt(II) poly-yne for photocell application, *12th International Conference on Materials Chemistry (MC12)* (PP), University of York, UK, 20th – 23rd July 2015.

17. **Rayya A. Al-Belushi,** Muhammad S. Khan, New Coordination-driven Self-assembled Ferrocenyls and related Electro-crystallized Materials (PP), *First SQU Chemisrty Conference: Recent Trends In Drug Development (RTDD 2015),* Sultan Qaboos University, Muscat, Oman, 10^{th} – 11^{th} November 2015.

18. **Rayya A. Al-Belushi,** Hakikulla H. Shah and Muhammad S. Khan, Facile electro-crystallization of ferricenyl materials from coordination driven self-assembled ferrocenyl materials, *"Electrochem-2014*, Loughborough University, UK, 7^{th}-9^{th} September 2014.

19. Muhammad S. Khan, **Rayya A. Al-Belushi** and Hakikulla H. Shah, Electrochemistry of covalently connected bis(ferrocenylethynyl)s, and coordination-driven self assembled multi-ferrocenyl- and multi-ferricenyl-materials, *Electrochem-2014*, *Electrochemical horizons* Loughborough University, UK, 7th-9th September 2014.

20. Hakikulla H. Shah, Mohammed K. Al-Sutti, Muhammad S. Khan and **Rayya A. Al-Belushi**, Structure-Property relationship in poly-metalla-ynes "3^{rd} European Symposium of Photopolymer Science", Vienna University of Technology "Freihaus", Vienna/Austria, 9^{th}-12^{th} September 2014.

21. Hakikulla H. Shah, Mohammed K. Al-Sutti, Muhammad S. Khan and **Rayya A. Al-Belushi**, Structure-Property relationship in poly-metalla-ynes "3^{rd} European Symposium of Photopolymer Science", Vienna University of Technology "Freihaus", Vienna/Austria, 9^{th}-12^{th} September 2014.

Conferences Attended

1. Research and Innovation in Support of Economic and Digital Transformation in Oman, Sultan Qaboos University (SQU), Muscat, Oman, 5-7 May 2024.
2. Chemicals & Materials for Emergent Technologies (CheMET), Qatar University, 15-17/11/2020 (1 pm -6 pm (GMT)) (ONLINE)
3. Reliable Management of Change and Quality in Education, Oman: Muscat, 14-17 December 2009.
4. ELT Conference "From Theory to Practice", Fatih University: Istanbol, 28 May 2011.

Membership in Professional Bodies

1. Received an invitation from Dr. Igor Bdikin, Mechanical Engineering Department, University of Aveiro, Aveiro, Portugal to be a member of the Nanotechnology Research and Innovation Association.
2. A member in the reviewer board of Research and Scientific Innovation Society (RSIS) Journals, RSIS-JRS-2471, March 2022 to date.
3. A member in American Chemical Society (ACS), ACS Member Number – 31641627, January 2022 to date.
4. A member in Society for Teaching and Learning in Higher Education strives (STLHE), Regular Membership, January 29, 2022.
5. A member (MRSC) in the Royal Society of Chemistry, Membership ID: 702858, February 9, 2022 to date.

6. A web member in the Royal Society of Chemistry (RSC), Membership ID: 702858, 2019 to 2022.
7. A member in the National Diploma Examination Committee at the Ministry of Education, Sep 2016 to date.
8. A member of the Chemistry Olympic Committee in the Ministry of Education, 2019-2020.
9. A member in the reviewer Board of MPDI, 2020 to date.
10. A member in the Editorial Topics Board of Polymers (MPDI), 2020 to date.
11. A reviewer in TRC/MoHERI, Oman, 2020 to date.

Professional Services

1. Member of Organizing Committee of the 2024 ASU Research Day, A'Sharqiyah University, May 8, 2022.
2. A Guest Editor of a special issue: Catalytic Conversion of Biomass to Biofuels, January 2023 to August 2023.
3. Member of the organizing committee and leading the organizing committee of the college exhibition booth, The 2023 ASU Research Day, 15-16 May 2023.
4. Co-Chair of Organizing Committee of International Conference in Health and Life Sciences (ICHLS-2023), 13-14 June 2023.
5. Chair of Organizing Committee of the 2022 ASU Research Day, A'Sharqiyah University, June 27, 2022.
6. A researcher and reviewer in Research Information Management System (RIMS), Ministry of Higher Education, Research, and Innovation (MoHERI), 2018 to date.
7. A reviewer for Elsevier Journals (Journal of Molecular Structure, Taibah University for Science), 2021 to date
8. A member in the Institutional Internal Evaluation Committee (IIEC), A`Sharqiyah University (ASU), (2018- to date).
9. Chair of Organizing Committee of Nanotechnology Webinar Week, College of Applied and Health Sciences, A'Sharqiyah University, 1-5 November 2020.
10. A member in the Organizing Committee of the ASU Research Day, A'Sharqiyah University (2019 to date).
11. Chair of Organizing Committee of ASU Research Day, A'Sharqiyah University, March 5, 2020.

4.1 Professional Recognition

✓ ***International/National Collaborations***

Table 1 International/National Collaborations

Period	Collaborative Partner's Name	Institution	Type of Collaboration
2016 to date	Prof. M. S. Khan	SQU, Oman	-Journal and conference publications.
2018 to date	Dr. Nawal Al Rasbi	SQU, Oman	
2018 to date	Dr. Ashanul Haque	The University of Hail, KSA	

2018 to date	Prof. Paul Raithby	The University of Bath, UK	- research grant proposals and projects.
2018 to date	Dr. Jonathan Skelton	University of Manchester, UK	

- ✓ ***International/National Collaborative Research visits***

Table 2 International/National Collaborative Research visits

Period	Institution	Purpose of Visit
15/07-16/08/2023	Sultan Qaboos University, Oman	Conducting experimental work for a collaborative Research Grant funded by MoHERI. The research visit was funded by A'Sharqiyah University.
03/07-23/07/2022	Sultan Qaboos University, Oman	Conducting experimental work and characterization of synthesized molecules.
25/07-19/08/2021	Sultan Qaboos University, Oman	Conducting the experimental work and characterization of compounds of a collaborative work.
04-06/02/2021	Sultan Qaboos University, Oman	Characterization of newly synthesized compounds of a collaborative work.
24/08-03/09/2020	Sultan Qaboos University, Oman	Conducting the experimental work and data analysis of a collaborative funded project.
27-31/01/2019	Sultan Qaboos University, Oman	Meeting for Research Collaboration and preparation of research grant proposal to be funded by TRC for the year 2018/2019. Visiting CARRU in College of Science to check for all available facilities/instruments which can be assisting ASU faculties in their research.
23/06-04/08/2014	University of Bath	Training on: (i) X-ray crystallography instrumentation and software (OLEX2 & WinGx program) under the supervision of Prof. Paul Raithby. (ii) DFT and TD-DFT calculations under the supervision of Dr. Jonathan Skelton.

Professional Development (PD)

Workshops & Training

1. Information and Compressibility, Speaker: Prof. Fouad Chedid, Thursday, March 28th, at 1:00p – 2:00p, in ADM 001, ASU.
2. Enhancing Higher Education through the Ethical and Effective Deployment of General Artificial Intelligence (GAI) Tools, Speaker: Dr. Abdul Hakim Mohamed, Thursday, March 21st, at 2:00p – 3:00p, in ADM 001, ASU.
3. Qualifications Listing Workshops, 3rd of March 2024, 21/03/2024, and 2nd of May 2024, ASU.

4. KPI: Definition and Implementation, organized by the Office of the Deputy Vice Chancellor for Academic Affairs and Research, 2nd of November 2023. Delivered by Dr. Ibrahim Al Harthi Associate Professor – Edu Psychology Certified KPI Coach.
5. IEEE Authorship and Open Access Symposium: Tips and Best Practices to Get Published from IEEE Editors, 20 September 2023.
6. Omani women in the sectors of education and the economy which was held on 28th of September 2022 at Oman Institute for Oil & Gas (InstOG), Muscat, Organized by the Ministry of Social Development in cooperation with Sultan Qaboos University.
7. Workshop on Making better data-based decisions with statistical modelling techniques, Organized by Chemistry Webinars Sponsored by JMP Group LLC, Speaker: Hadley Myers, 11-13 Oct 2022.
8. Capacity Building Workshop on Listing Qualifications on the Omani Qualifications Framework (OQF), Organized by The Oman Authority for Academic Accreditation and Quality Assurance of Education (OAAAQA) during the period 30 May to 1st June 2022, OAAAQA Premises, Muscat.
9. How to use your smartphone as an electronic marking tool, By: Dr. Said Al Ghenaimi (Dean of CAHS), March 11, 2020, College of Applied and Health Sciences, ASU.
10. E-Learning delivery of courses, By: Dr. Abdul-Hakim (Director of E-Learning Center in ASU), March 17, 2020, College of Applied and Health Sciences, ASU.
11. The 4th Industrial Revolution and its impact on Higher Education, By: Dr MeenalochanaInguva (SQU), January 9, 2020, Multipurpose Room 2, Student Affairs Building, ASU.
12. Alfresco, by:Mr. Ahmed AlSharqawi (IT), College of Applied and Health Sciences, ASU.
13. Workshop on Certified eLearning Developer (CeLD) program, 17,22,24 and 29 April 2019, 1:00-2:00 pm, ASU.
14. Mechanisms for the establishment of technology transfer offices in academic and research institutions, April 15, 2019, 8:00 am-3:00 pm, Oman Institute for Oil & Gas, SQU, Muscat.
15. EndNoteX9, March 24, 2019, 10:00 am – 12:00 pm, Venue: ADM 105, ASU.
16. Block Funding Program /Research Information Management System(RIMS), January 7, 2019, 9 am -2 pm, Venue: Main Hall of the Institute of Oil & Gas, SQU.
17. Managing Moodle learning and teaching resources, A'Sharqiyah University (ASU), Venue: CoBA 11, 23-24 May 2018.
18. Applications of Descriptive Statistics, By:Mr. Ahmad Alazab (Mathematics Instructor), December 5, 2019, College of Applied and Health Sciences, ASU.
19. Academic Advising Workshop, A'Sharqiyah University (ASU), 02 August 2018.
20. Training on X-ray crystallography and OLEX program for solving crystal structures, University of Bath, UK, 23rd June – 4th August 2015.
21. Training on Avogadro and Vesta programs for computational studies, University of Bath, UK, 23rd June – 4th August 2015.
22. Strategic Research, Sultan Qaboos University, Lab 18, 16-18 January 2012.
23. Intel program, Directorate General for Education, Aluthaiba, Muscat, 26-30 March 2011.
24. Training course for new supervisors (Phase 2), Directorate General for Education, Qurum, Muscat, 10-30 February 2010.
25. Training course on Autoplay Media Studio, Computer Center at Training Center, Ibra, 16-20 January 2010.
26. Training course for new supervisors (Phase 1), Directorate General for Education, Qurum,

Muscat, 24-28 October 2010.
27. The Universe Around you, Explore it", Training Center, Ibra, 10-12 November 2009.
28. Training course for new supervisors, Training Center, Ibra, 03-04 October 2009.

Seminars

1. Conjugated Hybrid Metal Complexes as Electrocatalysts for CO_2 Reduction, Speaker: Dr. Rayya Al Balushi, Parallel Research Tracks in conjunction with The 2023 ASU Research Day, 16th May 2023.
2. The Role of Academia in Upskilling Students in IR4 Technologies, Speaker: Dr. Ahmed Al Maashari (SQU), 24 Nov 2022.
3. Design, synthesis and characterization of some novel metalla-yne and poly(metalla-yne) materials, by: Dr. Rayya Al Balushi, January 3, 2019, 11:00 am-12:00 pm, (Venu: CAS 207, ASU)
4. Exam Preparation and Related Policies, by: Dr. Nasiruddin Khan, March 12, 2020, College of Applied and Health Sciences, ASU.
5. How to construct an effective exam question using Bloom's Taxonomy, by: Dr. Abdullah AL Toubi (Dean of CoAH), February 20, 2020, College of Applied and Health Sciences, ASU.
6. Introduction to Nanoscience and Nanotechnology, by: Dr. Mohammed Al Bahri (Assistant Professor-Physics), February 4, 2020, College of Applied and Health Sciences, ASU.
7. New Generation of Antibiotics, By: Dr. Raid Abdel-Jalil (Associate Professor, Department of Chemistry, College of Science, SQU), December 26, 2019, Auditorium, ASU.
8. The 4thIndustrial Revolution (I4.0) and its impact on Higher Education, By: Mr. Khalid Al-Huraibi (A member of Oman Business Forum- OBF), December 12, 2019, Auditorium, ASU.
9. Growth of Close-Packed Crystalline Poly-pyrrole on Graphene Oxide via in situ Polymerization of Two-Monomer- connected Precursor for energy storage, by: Dr. Mohammad Changez (Associate Professor-Chemistry), October 31, 2019, College of Applied and Health Sciences, ASU.
10. Exam Blueprint & Effective construction of MCQ Question, By: Dr. Said Al Ghenaimi (Dean of CAHS), October 24, 2019, College of Applied and Health Sciences, ASU.
11. Open Educational Resources (OER), By: Dr Fawzi Baroud, September 18, 2019, Auditorium (Students Service Building), ASU.
12. Use of caffeinated beverages and Energy drinks in Omani students, May 8, 2019, 11:30 am-12:30 pm, Venue CAS 206.
13. Sub Nano Ordering in single Molecule's magnet for bulk magnetic coupling, Dr. Mohammed Changez, April 18, 2019, 1:00-2:00 pm, CAS206.
14. Design, synthesis, characterization and antimicrobial evaluation of some novel benzazole analogues incorporating fluorine and piperazine moieties, Dr. Thuraya Al-Harthy, March 14, 2019, 1:00-2:00 pm, CAS206.
15. Stepped Nanowire for Stabilized Magnetic Domain Wall, Dr. Mohammad Al-Bahri, December 27, 2019, 1:00-2:00 pm, CAS206.
16. 1st ASU Research Day 2019, March 5, 2019, 9:00 am-4:00 pm, Venue: ASU.
17. EJAAD Focal Points Annual Gathering, February 20, 2019, 9:00 am-1:00 pm, Venue: Main Hall of the Institute of Oil and Gas.

Webinars

1. A virtual training workshop (IGI Global), Speaker: Ms. Parnia Sheibani (International Sales Manager - Electronic Resources), Organized by MoHERI, 16th of May 2024 (10-11 AM).
2. How to find the right collaborators and funding opportunities, Speaker: Dr. Yasmin Amr Customer Research & Analytics Consultant, 17th of May 2023 (ONLINE via ZOOM).
3. Analytical impurity standards – minimize project risk & avoid common pitfalls. Speakers: Joe Lackey, technical specialist at LGC and Roni Rantanen, Quality Manager (Toronto Research Chemicals (TRC)), Organized by Chemistry World Webinars and Toronto Research Chemicals (TRC), 5 Dec 2022.
4. Enhancing development, scale-up and manufacturing of pharmaceuticals with benchtop NMR, Speaker: Blake Forman, Editorial Assistant, Select Science, Oct 12, 2022.
5. From Wood Pulp to a Candidate Medicine: Green Manufacturing Technologies Enable Production of Nemtabrutinib, Ben Turnbull (Associate Principal Scientist, Merck), Mike Di Maso (Associate Principal Scientist, Merck), Philippa Payne (Senior Research Scientist, Gilead Sciences and Co-Chair, ACS GCI Pharmaceutical Roundtable), 8 September 2022.
6. How We Study Molecules in Space: Finding and Analyzing Cosmic Carbon, Brett A. McGuire (Class of 1943 Career Development Assistant Professor, Department of Chemistry, Massachusetts Institute of Technology); Kyle Crabtree (Associate Professor, Department of Chemistry, UC Davis), 31 August 2022.
7. Opportunities and challenges in solid research in the Gulf countries, Organized by The General Secretariat of the Cooperation Council for the Arab States of the Gulf, 17 May 2022.
8. The National Equipment and Facilities Database (iLab), By: Ms. Bishara Al Marzoqi (MoHERI), 27 April 2022.
9. Identify Organic Levels in UPW to Utility and Wastewater, By: Melvyn Lam (Application specialist APAC SUEZ Water Technologies), 26 April 2022
10. Student-Centered Learning and Teaching Practices in Higher Education That Make an Impact: What We Know and What We (Should) Do, By: PD Dr. Sabine Hoidn (University of ST Gallen), 12 April 2022.
11. Guidelines of GRG & submission process in RIMS, By: **Dr. Rayya Al Balushi**, 24 March 2022.
12. Guidelines of URG & submission process in RIMS, By: **Dr. Rayya Al Balushi**, 16 March 2022.
13. Web of Science Essentials, Host: Rachel Mangan. March 16, 2022
14. Sample preparation efficiency and productivity: Making Labs work, Organized by Gulf Bio Analytical Group, 08 February 2022.
15. Dalton New Talent: Americas Desktop Seminar, Speakers: Professor Cynthia L M Pereira, Federal University of Minas Gerais, Brazil (Talk Title: Mononuclear lanthanide(III) complexes containing oxamate ligands: synthesis, photophysical and magnetic properties), Professor David Herbert, University of Manitoba, Canada (Talk Title: Exploiting Ligand C=N Units in Molecular Materials Chemistry), Professor Rebekka Klausen, Johns Hopkins University, USA (Talk Title: Fragments of crystalline silicon via target-oriented synthesis).

16. Bridging the Competency Gaps – Learning through Flow of Work, by: Dr. Sultan Al Shidhani, Petroleum Engineering Director, PDO, Organized by ASU, 30/11/2021, 11:00-12:30 pm.
17. Benchmarking Practices at SQU: Challenges and Opportunities, by: Dr. Sabah Al Balushi, Head of the Quality Management Unit, Centre for Preparatory Studies, Sultan Qaboos University & Dr. Mohammed Athar Khan, Head of Sustainable Development Unit, Centre for Preparatory Studies, Sultan Qaboos University, Organized by College of Applied & Health Sciences, ASU, 11/11/2021, 11:30 am-1:30 pm.
18. New Horizons of Linking Academia with Industry, Speaker: Jonathan Ray - Director of Communication - Creative & Cultural Skills, Organized by Modern College of Business and Science, by: Jonathan Ray, 20/10/2021, 4:00 – 5:00 pm.
19. Conjugated Poly-ynes and Poly(metalla-yne)s: Photophysical properties & application, by: Dr. **Rayya Al Balushi**, College of Applied & Health Science, 18/10/2021, 12:00-1:00 pm.
20. Instruments & their applications for Research - Metrohm Electrochemistry, Organizer: Metrohm Middle East, 06/10/2021, 11:00 am-12:00 pm.
21. Quality Research Activities at HEI; Challenges & Way forward, by: Dr. Ali Al Bemani, VC, National University of Science & Technology, September 13th, 2021, 10:00 am – 11:00 am.
22. QS International Ranking: Challenges and Opportunities Dr. Tariq Mohiuddin Ghulam, Head of International Ranking Development Unit, SQU, September 13th, 2021 2:00 pm – 3:00 pm.
23. Assessment through Learning Outcomes, Dr. Ibrahim Al Wahaibi, Assistant Professor in Measurement and Evaluation, College of Arts and Humanities, September 14th, 2021, 10:00 am – 11:00 am.
24. What helps to achieve Institutional Accreditation? Dr. Ibrahim Al-Harthy, Director of Quality Assurance Office, SQU, September 15th, 2021, 10:00 am – 11:00 am.
25. Quality Assurance Policies and Procedures Dr. Khalid Al Jardani, Director of Quality Assurance and Accreditation, September 15th, 2021, 2:00 pm – 3:00 pm.
26. The Application of Lean Management in Higher Education Dr. Yousef Al Aufi, PDO CI Coach & Oman Vision 2040 Seconded CI Coach, September 16th, 2021, 10:00 am – 11:00 am.
27. Embedding (21st Century) Skills into the Curriculum, Prof. Thuaiyaba Al Barwani, Education Professor Emeritus, SQU, September 16th, 2021, 1:00 pm – 2:00 pm.
28. Conjugated Poly-ynes and Poly(metalla-yne)s: Photophysical properties & applications, by: Dr. **Rayya Al Balushi**, October 18, 2021, 12:00 -1:00 pm (ONLINE)
29. Instruments & their applications for Research - Metrohm Electrochemistry, October 6, 2021, 11:00 am-12:00 pm (ONLINE)
30. New Horizons of Linking Academia with Industry, by: Jonathan Ray - Director of Communication - Creative & Cultural Skills, October 20, 2021, 4:00-5:30 pm (ONLINE)
31. What is the future for enhanced oil recovery? by: Prof. Ann Muggeridge, Imperial College London, October 25, 2021, 12:30-2:30 pm (ONLINE)Excellence in Peer Review: How to be an effective peer reviewer, July 16, 2021, 1:30-3:00 pm, Organized by Taylor & Francis Reviewer Training Network.
32. Education and Research Impact in Developing Nations MENA Virtual Executive Boardroom, June 23, 2021, Organized by Great Minds Group.
33. CCCE: Webinar on Surface Engineering of Polymer Membrane, http://chemical.celnet.in/webinar-on-surface-engineering/ , Speaker: Dr. Dipankar Pal (Assistant Professor, Chemical Engineering, Indian Institute of Petroleum and Energy), 09/09/2020.

34. Quality Assurance and Accreditation, Speaker: Dr. Khalid Al Jardani, 13/09/2020, ASU.
35. Effective Teaching in Higher Education, Speaker: Dr. Esam Al Lawati, 14/09/2020, ASU.
36. Academic Advising Center, Speaker: Ms. Nasrin Al Hajri, 14/09/2020, Time: 2:00 -3:30 pm, ASU.
37. Bloom's Taxonomy of Learning and its Applications, Speaker: Dr. Abdullah Al Tobi, 15/09/2020, Time: 9:00 -10:30 pm, ASU.
38. Assessment of Students Learning Outcomes, Speakers: Dr. Sharif Al Soudi & Dr. Amjad Joma, 15/09/2020, 2:00 -3:30 pm, ASU.
39. Assessment of Students Learning Outcomes, Speakers: Dr. Sharif Al Soudi & Dr. Amjad Joma, 15/09/2020, 2:00 -3:30 pm.
40. E-Learning Center, Speaker: Dr Abdul Hakim Mohamed, Date: 16/09/2020, Time: 9:00 -10:30 pm, ASU.
41. Effective Use of Educational Technology in Teaching and Assessment, Speaker: Dr Qasim Al Ajmi , Date: 16/09/2020, Time: 2:00 -3:30 pm, ASU.
42. Omani Culture, Customs, and traditions, Speaker: Mr. Yaqoob Al Harthi (Lecturer, College of Law), Date: 17/09/2020, Time: 12:00 -1:00 pm (ASU).
43. ASU 2020-25 Strategy and inspirations, Speaker: Prof. Fouad Chedid (VC) & Dr. Khalid Dehleez (COBA), Date: 17/09/2020, Time: 2:00 -3:30 pm (ASU).
44. Second Franklin Webinar Series, By: Dr. Meghan B. Raehil & Dr. Godfrey Mendes, April 22, 2020 (4:30 pm - 6:30 pm), Online through Zoom platform.
45. Strategies to control costs and generate revenue from your patents , Speaker: Alison Lawson, Managing Director and Dr. Coreena Brinck, Partner, European and UK Patent Attorney , Organized by Clarivate, 23/09/2020, Time: 2:00 -3 pm, Webex (online).
46. Unlock your Research Potential with IEEE Xplore: Masader Oman, Date: 14/10/2020, Time: 3 pm , Online (Webex).
47. Recent Advances in Nanotechnology, Organized by College of Arts & Applied Science, Dhofar University (DU), Oman, 21/10/2020, Time: 7-9 pm, Online (YouTube Channel of DU: CAAS Dhofar).
48. Magnetization Dynamics by Magneto-Optical Kerr Effect Microscope, Speaker: Ms. Thuraiya Al Maawali, Organizer: College Research & Enterprise Committee, 2/11/2020, Time: 12 pm -1 pm, CAHS, ASU.
49. Solid-state sensors based on tris (2,2'-bipyridyl) ruthenium (II) doped onto conducting polymers for electrochemiluminescence and electroanalysis sensors, Speaker: Dr. Mohammed Al Hinaai, Assistant Professor in chemistry, Organizer: College Research & Enterprise Committee, 12/11/2020, Time: 12 pm -1 pm (ASU).
50. Course Evaluation Report- English, Speaker: Dr. Nasiruddin Khan, Associate Professor, Department of FSHN, Basic Sciences, CAHS, 16/11/2020, Time: 12 pm -1 pm (ASU).
51. RGSO Research Development Series] - Activity (1): on Research Project Management for Successful Block Funding Program Grants, 29/11/2020, Time: 2 pm -4 pm.
52. Webinar: Problem-based Learning: pedagogy for the 21st century webinar, Speaker: Dr Beaumont from (UK), Organizer: A` Sharqiyah University, Date: 2/12/2020, Time: 1 -2:30 pm.
53. Using students' Learning Styles to Teach effectively, Speaker: Dr. Kathryn Chang Barker, Date: 4/2/2021, Time: 1:30-3:00 pm (ASU).
54. Effective Use of English in the classroom, Speaker: Mr. Abdulrahman Al Jahdhami, CLFS, Date: 11/2/2021, Time: 1:30-3:00 pm.

55. Education e-Solutions Webinar- Envisioning Future of University Education That Will Shape In 2021 & Beyond, Organized by: PraxiLabs, 15/2/2021, Time: 5:00-8:00 pm.
56. How To Publish Research Paper in Q 1 Scopus Journals, Organized by Waljat College of Applied Sciences, Muscat, Speaker: Prof. (Dr.) Kun-Huang Huarng, Vice President, National Taipei University of Business (NTUB), 18/2/2021, Time: 10:00 am, Virtual (Google Meet).
57. How to review research proposal submitted to Health Institution? Speaker: Dr. Huda Abu Hamdeh, Organizer: University Research Ethics & Biosafety Committee, 09/03/2021, Time: 10:00-11:00 pm (ASU).
58. Nature and mental wellbeing – Building a better chemistry culture, Speakers: Alistair Griffiths (Royal Horticultural Society), Anjana Khatwa (Wessex Museums), Patricia Zurita (BirdLife International), Organizer: Royal Society of Chemistry (RSC) & Chemistry World Webinars, 13/05/2021, Time: 6:30-8:00 pm, Venue: Online (Go to Webinar).

Awards & Honors

1. Honorary Award for the research achievements in the field of chemistry at the Third Arab Female Innovators Forum, held on Monday, April 29, 2024, in Muscat.
2. Received the Award of Best Academic Advisor of the College of Applied and Health Sciences for the year 2024, Academic Advisor event which was held at ASU on Thursday, April 25, 2024.
3. Received an Award for the approved Research Grant (RG-2022) from ASU during the closing ceremony of the 2023 ASU Research Day, 16/05/2023.
4. Honorary Award from Ministry of Higher Education, Research and Innovation during the Omani Women Celebration, 17th of October 2022, Kempinski Hotel Muscat.
5. Best published paper of the year 2020/2021, ASU 2021 Research Week 2021, 04th - 08th April 2021, A'Sharqiyah University.
6. Award of Best researcher, 2019/2020, September 23, 2020, A'Sharqiyah University.
7. Best published paper of the year 2019, Research Day 2020, 04th March 2020, A'Sharqiyah University.
8. Award of Highly Cited Researcher, Research Day 2020, 04th March 2020, A'Sharqiyah University.
9. The 3rd Student Awards for the Advancement of Post-Graduate Education in Oman (Ph.D Student Award), Honorary Award at the Gulf Intelligence Oman Energy Forum August 25, 2019, The Grand Millennium Hotel, Muscat.
10. Best published paper of the year 2018, Research Day 2019, March 5, 2019, A'Sharqiyah University.
7. The best research work in Energy and Industry Sector for the year 2018, The National Research Award 2018, December 9, 2018, Category 1 (Best published research led by PhD holder or equivalent), TRC, Muscat.
8. The "Best Postgraduate Thesis Award" for the Academic Year 2016/2017 on the Doctoral Thesis "Design, Synthesis and Characterization of Some Novel Metalla-yne and Poly(metalla-yne) Materials, Deanship of Postgraduate Studies, Sultan Qaboos University.
9. Ph.D Scholarship from Sultan Qaboos University, 2012-2016.

10. Certificate of Appreciation from the Department of Human Resources Development, Directorate General of Education in North Sharqiyya Region, for the quality of performance and excellence in the Department of Applied Sciences, 22/05/2010.
11. Certificate of Merit from North A`Sharqiya Region on the occasion of Teacher's Day, 2006-2007.
12. Master Scholarship from Ministry of Education, 2002-2005.

- **UNIVERSITY AND COMMUNITY SERVICES**

Membership of College and University Committees

S.N.	Committee Name	Role	Period
	University Level		
1	University Research Ethics and Biosafety Committee (UREBC)	Chair	June 2020-date
2	QS World University Ranking Committee	Member	Dec 2021-Aug 2023
3	University Research & Enterprise Committee (UREC)	Member	Oct 2019-date
4	Institutional Internal Evaluation Committee (IIEC)	Member	2018-date
5	University Research & Enterprise Committee (UREC)	Chair	2018/2019
6	University Academic Board (UAB)	Member	2018/2019
7	Accreditation and Standards Committee (ASC)	Member	2018/2019
8	PPP Student Competition (ASU Research Week)	Member	4-8 April 2021
	College Level		
9	Basic Science Department (BSD)	Head (HOD)	Sep 2021-date
10	Basic Science Department (BSD)	Acting HOD	Summer 2020
11	College Academic Board (CAB)	Member	2019-date
12	College Research and Enterprise Committee (CREC)	Chair	2019-date
13	College Teaching and Learning Committee (CTLC)	Member	2018-date
14	College Assessment and Review Committee (CARC)	Member	2019-date
15	College Community Service (CCS)	Member	2019-2021
16	College Community Service (CCS)	Chair	2018/2019
17	College Management Committee (CMC)	Member	2021-date

Program Management and Course Co-ordination

1. Member of the validation panel team of reviewing new program of Bachelor of Science in Sustainable Systems Engineering (8 Jan 2023).
2. Member of the developing committee of the Education in Chemistry Program, 2022/23.
3. Chair of the validation panel team of reviewing new program of Master in Records and Archives Management (16 Feb 2022).
4. As an Assistant Professor in chemistry, I, with several of my colleagues in the college have developed the Industrial Chemistry Program for Diploma and BSc degrees. which was approved by MoHERI in January 2020. The first batch of students (19) was received by this academic year (Fall 2021). Meanwhile, I serve as HOD of BSD but also responsible of managing all duties related to Industrial Chemistry program such as ordering the required textbooks, lab instrument, modifying the study plan as per the Deans' direction

and ASU requirements/policies, etc. I arranged and chaired an online meeting with all students with industrial chemistry majors and discussed with them the study plan and registration for Spring 2022 semester

5. A member in the validation panel for the new program BSc in Water Engineering (2020/2021).
6. A member of the validation panel team of reviewing new program of Master of Psychology (18 Dec 2019).
7. I served as a course coordinator for all Arabic and English chemistry courses which are taught by me and other chemistry faculty members at CAHS.

Course Code	Course Name	Credits	Maximum Student Enrolment	Role
CHEM101	General Chemistry I	3	87	Lecturer & Coordinator
CHEM181	General Chemistry I Lab	3	34	Lecturer & Coordinator
CHEM102	General Chemistry II	3	48	Lecturer & Coordinator
CHEM182	General Chemistry II Lab	3	32	Lecturer & Coordinator
CHEM201	Organic Chemistry I	3	90	Lecturer & Coordinator
CHEM281	Organic Chemistry I Lab	3	48	Lecturer & Coordinator
CHEM101E	الكيمياء العامة	3+1	146	Lecturer & Coordinator
CHEM202E	الكيمياء التحليلية	2+1	96	Lecturer & Coordinator
CHEM201E	الكيمياء العضوية	2+1	80	Lecturer & coordinator
CHEM110	Green Chemistry	3	23	Lecturer & coordinator
CHEM111	Applied Chemistry	2+1	22	Lecturer & coordinator
CHEM211	Inorganic Chemistry	3	24	Lecturer & coordinator

Research Mentorship

I have been an effective mentor of several young colleagues and staff in the College of Applied and Health Sciences. Mr. Abdul-Malik worked as a research assistant (RA) in my funded research project (BFP/RGP/EI/18/076). I secured a RO 2700 research grant (MoHERI) in 2019 with Dr. Thuraya Al Harthi as the Co-Principal Investigator (Co-PI). Dr. Thuraya Al Harthi is the advisor of Mr. Abdul-Malik in graduate research grant (GRG/MoHERI) with a fund of 3000 OMR. In addition, I published with Dr. Thuraya Al Harthi and Dr. Mohammed Al Hinaai as a teamwork a review paper and a conference paper. I have secured as a PI a Research Grant of the 2022 cycle research with Dr. Thuraya Al Harthi as Co-PI and Dr. Mohammed Al Hinaai as Co-I. In addition, I serve as a supervisor in GRG ongoing project of the 2022 cycle in which Mr. Abdul-Malik is the PI and Ms. Asila Al Maskari as Co-PI.

As a chair of UREBC, CREC, and a member of UREC, I have effectively support and help college researchers (staff and students) in all matters related to research such as applying for external and internal grants, attending conferences, managing school students' projects, collaborative research visits, etc. I participate in an induction program for new staff to introduce them with research policies and all research related activities in the College and University.

In addition to the above, in my role as HoD, I mentor all department staff in the learning-teaching process, research and community service.

Community

1. Since Sep 2016, I have been a member in the National Diploma Examination Committee at the Ministry of Education. My role in this committee is mainly to revise and evaluate the Chemistry Diploma Tests of both 1st and 2nd school semesters.
2. As chair of CREC, I have prepared the required form to support school students and teachers in conducting their research projects which require the use of CAHS resources. This form provides a flexible procedure in collaboration with directorate of Education at A'Sharqiyah North on research filed. The Dean and I, have discussed and explained the steps required for processing students' projects for supervision, using the college facilities …etc. based on MoU signed with Directorate of Education.
3. I provide consultancy services to school students, faculties especially teachers from Ministry of Education, give talks and organize workshops in local schools.
4. I review and evaluate several postgraduate research tools of national and international Universities.
5. I play an effective role in managing the experimental part of school students' projects which are conducted in the college laboratories.
6. I worked as a co-supervisor of several school research projects. Examples of school projects are listed below:
   - project for the student Ms. Amal Al Hajri; project titled: Pomelo peels as fuel.
   - Ms. Salma Al Ghilani; Project title: *Halexylon Salicornicum* extract for treatment of stomach acidity.
   - Ms. Rana & Rinad; Project title: Flavonoid extract for catalytic activity in treatment of sickle cell disease.
7. Participation with College Science group in a number of community events.
8. I have organized and participated as a co-speaker in an awareness lecture about "Corona Virus and its Effects on the Individual and Society" for teachers of Al-Khashbah School for Basic Education, Ibra. The main speaker was Ms. Nassra Al Balushi (Jaalan Bani Bu Ali Hospital).
9. I served as chair of community service during the academic year 2018/2019 and a member of the same committee since 2019. In this committee I participated in organizing and arranging several social activities.
10. I have participated as a member in preparing exams for school students who were members in Chemistry Olympiad group during 2019/2020.
11. Participate in a several national studies and research to serve education institutions, industry and health.
12. I received a certificate of thanks and appreciation from the General Directorate of Education in North A'Sharqiya Region for my effective role in the teaching of the subject of Methodology of Scientific Research, 2008-2009.

13. I received a certificate of thanks and appreciation from the General Directorate of Education in North A`Sharqiya Region for excellence in the application of tools for continuous evaluation of the twelfth grade in the first semester of the academic year 2008-2009.
14. I received a certificate of thanks and appreciation from the Health Committee in Ibra for the efforts during the Ibra Health Month, 2007.

References

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