

FADWA ODEH

Professor

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EXECUTIVE SUMMARY

- Professor of Physical Chemistry, with more than 15 years of teaching and research experience with specific interest in enhancing education and research, helping and motivating future leaders in chemistry and science.
- Main areas of research interest are: drug delivery systems, guest-host complexation, water treatment, conservation of cultural heritage, and science outreach.
- Published more than 50 high quality papers in high standard international journals & conferences, three chapters and received 13 national and international funded projects
- The first Chairwoman of the Chemistry Department at The University of Jordan
- My efforts aim at spreading enthusiasm for science and chemistry locally through engaging University's students with different activities such as **Scientific Days** and **Chemistry festivals**, **Arabic Week of Chemistry**, "**Lab in a Bus**" activities to schools, helping in conference organization, active member in Jordanian Chemical Society (JCS), American Chemical Society Jordan Chapter and internationally through collaborative research projects. Participated in the Department's ABET accreditation, curricula development, and planning new programs to be offered by the Department.
- Trained, moderated and participated in several professional training & workshops in Jordan and abroad. I am a certified trainer in Chemical Safety and Security.
- Organized, chaired, lectured, attended, and moderated several congresses, conferences, symposiums, meetings and workshops for funded projects and scientific networking.
- One of the people initiated the formation of the Jordan Chapter of ACS, and participated (and still is) translation of selected C&EN articles to Arabic in collaboration with the ACS and founded a group of interested people in science translation to Arabic (totally voluntary).
- A keen supporter of project oriented learning and learning through doing, I participated (and still is) in Future Scientists competition, which is held annually by Ibtikar, and am the University of Jordan coordinator since 2017. It encourages teams of school students (different ages) to involve in scientific projects from scratch, and we facilitate interaction and use of the University's facilities and labs in addition to faculty and graduate students in various departments and centers.

EDUCATION

Degree	Bachelor	Master	Ph.D.
University	The University of Jordan (JU) Amman, Jordan	University of Jordan (UJ) Amman, Jordan	Clarkson University (CU) Potsdam, NY, USA
Graduation Date	June 1991	June 1996	May 2006
Specialization	Chemistry	Inorganic and Physical Chemistry	Physical Organic Chemistry
Title of MSc. Thesis	Preparations and Reactions of Some Transition Metals Chelates. Supervisor: Prof. Hamdallah Al Hodali and Prof. Manar Fayyad		
Title of PhD Dissertation	NMR Study of Colloidal Systems for Pharmaceutical and Microelectronics Applications. Supervisor: Prof. Yuzhuo Li		

ACADEMIC EXPERIENCES

10/2022-present	Professor, the Chemistry Department, The University of Jordan (JU), Amman, Jordan .
09/2018-09/2020	Head of the Chemistry Department, The University of Jordan (JU), Amman, Jordan .
12/2013-10/2022	Associate Professor, the Chemistry Department, The University of Jordan (JU), Amman, Jordan .
09/2015-06/2017	Associate Professor, the Chemistry Department, Tabuk University (TU), Tabuk, Saudi Arabia .
12/2008-12/2013	Assistant Professor, the Chemistry Department, The University of Jordan (JU), Amman, Jordan .
09/2007-12/2008	Full-time lecturer, the Chemistry Department, The University of Jordan (JU), Amman, Jordan .
06/2007-09/2007	Post-doc researcher, Department of Chemistry and Biomolecular Sciences, Clarkson University, Potsdam, NY, USA .
01/2007-06/2007	Part-time lecturer, Department of Chemistry, The Hashemite University, Zarqa, Jordan .
06/2002-06/2006	Teaching and Assistant, Department of Chemistry and Biomolecular Sciences, Clarkson University, Potsdam, NY, USA .
01/2000-06/2002	Instructor, the Chemistry Department, The University of Jordan, Amman, Jordan .
08/1997-08/1999	Teacher, Queen Alia Community College, Amman, Jordan .
01/1993-07/1996	Teaching and Research Assistant, Department of Chemistry, University of Jordan, Amman- Jordan .

TEACHING EXPERIENCES *

Course	Level	Class Size	University
General Chemistry (Chem 101 & 102)	Freshman	60-100	JU
Experimental Chemistry for Chemistry Majors (Chem 106)	Freshman	20-30	JU
Experimental Chemistry for Non-chemistry Majors (Chem 109)	Freshman	20-30	JU
Physical Chemistry I (Chem 241)	Sophomore	30-60	JU & TU
Experimental Physical Chemistry I (Chem 246)	Sophomore	24	JU & TU
Physical Chemistry II (Chem 341)	Junior	40-60	JU & TU
Experimental Physical Chemistry II (Chem 346)	Junior & Senior	24	JU
Colloids and Surface Chemistry (Chem 442)	Senior	20-60	JU & TU
Advanced Physical Chemistry (Chem 441)	Senior	20-60	JU
Chemical literature & Research (Chem 391)	Senior	4-8	JU & TU
Practical Chemical Research (Chem 496)	Senior	1-4	JU
Statistical Thermodynamics (Chem 942)	PhD	5-10	JU

* Teaching load at JU is 12 credits per semester

PROFESSIONAL TRAINING, WORKSHOPS & SCIENTIFIC DAYS

Role	Workshop Title, Event Title	Date
Trainer	Chemical Safety and Security Training, JU, Amman, Jordan	January 19, 2023
Moderator & Trainer	Science is Fun: Training for science teachers in cooperation with Ministry of Education in Jordan	Different times (Started Dec 2022-ongoing)
Trainer	Chemical Safety and Security Training, JU, Amman, Jordan	February 29, 2021
Trainer	Processing of NMR raw data using Topspin, Amman, Jordan	February 29, 2020
Participant	Fluxana XRF Instrument Training, Amman, Jordan	April 9, 2019
Participant	5 th Festival Training Institute. Sharjah, UAE	April 17-19, 2018
Trainer	Chemical Safety and Security Training (Chemical Spills), JU, Amman, Jordan	April 15, 2018
Trainer	Chemical safety and security in laboratories, Jordan Engineers Association, Amman, Jordan	April 7, 2018
Moderator	Reaxys Workshop, JU, Amman, Jordan	February 13, 2018

Trainer	Chemical Safety and Security Training, Amman, Jordan	January 22-24, 2018
Moderator	Scifinder Workshop, JU, Amman, Jordan	November 21, 2017
Participant	Teaching and Learning Methods, JUST, Irbid, Jordan	February 22, 2017
Participant	Global Chemists' Code of Ethics workshop, Kuala Lumpur, Malaysia	April 4-6, 2016
Participant	Winter Workshop 2015 on polymeric water filtration and water treatment under the Deutscher Akademischer Austauschdienst (DAAD) collaboration Project between the German Jordanian University and the Leibniz Institute for Analytical Science – ISAS, Dortmund, Germany, GJU, Amman, Jordan	October 18-21, 2015
Participant	Jordan Chemical Incident Reporting & Management, Amman, Jordan	August 23-27, 2015
Participant	The 2 nd Arab-American Frontiers of Sciences, Engineering, and Medicine Symposium, Muscat, Oman	December 13-15, 2014
Trainer	Chemical Security and Safety Training in Jordan (TOT), Amman, Jordan	June 8-13, 2014
Participant	Chemical Safety and Security Officer Training Workshop, JUST, Irbid, Jordan	June 2-6, 2013
Participant	FP7 Training Week, JU, Amman, Jordan	May 9-14, 2010

FUNDED RESERCH PROJECTS

#	Name of Project	Funding Agency	Role	Year	JU Share	Total Funding
1.	ACS-FTI activity funded by ACS Synthesis, characterization, and photocatalytic properties of modified Clay from different Regions in Jordan	ACS	PI	2021	\$3000	\$3000
2.	ACS-FTI activity funded by ACS Synthesis, characterization, and photocatalytic properties of modified Clay from different Regions in Jordan	Deanship of Scientific Research, University of Jordan	PI	2021	JD 8000	JD 8000
3.	ACS-FTI activity funded by ACS	ACS	PI	2018	\$ 3000	\$ 3000
4.	CSS workshop (TOT)	US department of state	PI	2014	\$ 20000	\$ 20000

5.	Development of specific Aptamers against cell surface markers of Cancer Stem Cells (CSCs) and Circulating Tumor Cells (CTCs)	Scientific Research Fund/ Ministry of Higher Education and Scientific Research	PI	2016-2019	113160	JD 113160
6.	Jordan Conservation of Cultural Heritage in ERA project (JOCHERA) using material sciences	EU (FP7)	Researcher	2016-2018 Dec. 2011- Dec.2013		JD 500000
7.	Targeted-delivery of macromolecular drugs (Aptamers) to cancer cells	Scientific Research Fund/ Ministry of Higher Education and Scientific Research	PI	2010-2012	JD 60300	JD 60300
8.	Targeted-delivery of macromolecular drugs (Aptamers) to cancer cells	Deanship of Scientific Research, University of Jordan	PI	2009-2011	JD 20000 (As seed money)	JD 20000
9.	Surfactant Enhanced Remediation of Polluted Water	Deanship of Scientific Research, University of Jordan	Co-PI	2009-2011	JD 20800	JD 20800

STUDENTS' FUNDED PROJRCTS

#	Name of Project	Student Name / Level	Funding Agency	Funding Amount (JD)
1	Crosslinking of water-soluble cyclodextrin with hyaluronic acid for targeted drug delivery	Fedaa Al Adailleh PhD	Deanship of Scientific Research, JU	3000
2	Effect of cucurbiturils on phosphatidylcholine lipid bilayer: A study of the stability and interactions with liposomes	Summay Taher M.Sc.	Deanship of Scientific Research, JU	1500
3	The evaluation of Cyclodextrin and Gum Arabic as a dual drug delivery system	Lubna Al Tarawneh M.Sc.	Deanship of Scientific Research, JU	1500
4	Treatment of Industrial Waste Water from Heavy Metals Using Polyoxometalates	Safa'a Hussein M.Sc.	MEDRC	5000
5	Treatment of Industrial Waste Water from Heavy Metals Using Polyoxometalates	Safa'a Hussein M.Sc.	Deanship of Scientific Research, JU	1500
6	Remote drug loading and ligand – functionalization of liposomes for targeted drug delivery into cancer cells	Hamdi Nsairat, PhD, 2019	Deanship of Scientific Research, JU	3000
7	Cinnamaldehyde in cucurbituril: A study of loading efficiency and bioavailability and solubility enhancement	Bayan Al Tbakhi, M.Sc., 2019	Deanship of Scientific Research JU	1500

8	Synthesis of new nanocarriers suitable for loading bioactive phytochemicals and extracts	Dima Khater, PhD, 2016	Deanship of Scientific Research, JU	3000
9	Synthesis and Characterization of Zeolite P from Metakaolinite	Duaa Abu Rmaileh, M.Sc., 2013	Deanship of Scientific Research, JU	1500

COLLABORATIONS

JORDAN

- Prof. Abeer Al Bawab, Department of Chemistry, The University of Jordan (JU), Jordan
- Prof. Said Ismail, Faculty of Medicine, The University of Jordan (JU), Jordan
- Prof. Rana Abu Dahab, Faculty of Pharmacy, The University of Jordan (UJ), Jordan
- Prof. Muna Abu Dalb, Department of Chemistry, Jordan University of Science and Technology (JUST), Irbid, Jordan
- Prof. Hala Al Jaber, Chemistry Department, Al Balqa Applied University, Salt, Jordan
- Prof. Abdulla Awidi, Cell Therapy Center (CTC), The University of Jordan (JU), Amman, Jordan
- Dr. Walhan Al Shaer, Cell Therapy Center (CTC), The University of Jordan (JU), Amman, Jordan
- Dr. Ghada Kassab, Department of Civil and Environmental Engineering, The University of Jordan (JU), Amman, Jordan
- Dr. Lubna Al Rawashdeh, Chemistry Department, Hashemite University (HU), Zarqa, Jordan
- Prof. Fawwaz Khalili, Chemistry Department, The University of Jordan (JU), Jordan
- Prof. Firas Awwadi, Department of Chemistry, The University of Jordan (JU), Jordan
- Dr. Rund Abu Zurayk, Hamdi Mango Center for Scientific Research (HMCSR), The University of Jordan, Amman, Jordan
- Dr. Ismail Mahmoud, Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, The Hashemite University, Zarqa, Jordan

INTERNATIONAL

- Prof. Richard Partch, Department of Chemistry, Clarkson University (CU), Potsdam, NY, USA
 - Prof. Elias Fattal, Institut Galien Paris-Sud, CNRS, Université Paris-Sud, Université Paris-Saclay, Châtenay-Malabry, France
 - Prof. Mumtaz Guran, Department of Medical Microbiology, Faculty of Medicine, Eastern Mediterranean University, Famagusta, Northern Cyprus
 - Prof. Jules B. van Lier, Section Sanitary Engineering, Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands
 - Dr. Suhair Bani Atta, Department of Chemistry, University of Tabuk, Tabuk, Saudi Arabia
 - Dr. Ammar Ben Meya, Department of Chemistry, University of Echahid Hamma Lakhdar, El Oued, Algeria
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INVITED CONFERENCE PRESENTATIONS

Conference Name	Presentation Title	Conference Date & Place
4 th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina	Remote loading of bioactive molecules into liposomes	Sarajevo, Bosnia and Herzegovina 30 th June-2 nd July, 2022
1 st International Conference on Materials, Energy and Environment	Remote loading of bioactive molecules into liposomes	El Oued, Algeria January 20-21, 2020
3 rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina	Incorporation of Quercetin Into new Nanocarriers Formulated from Edible Oils and Biodegradable Polymers	Sarajevo, Bosnia and Herzegovina October 19-21, 2018
2 nd International Conference on Advanced Materials (ICAM-2017)	Dynamic NMR Study of Model CMP Slurry Containing Silica Particles as Abrasives	Irbid, Jordan July 10-13, 2017
Emerging Trends in Scientific research	Synthesis and Characterization of Zeolite P from Metakaolinite	Kuala Lumpur, Malaysia April 2-3, 2016

PEER-REVIEWED PUBLICATIONS

1. Hamdi Nsairat, Dima Khater, **Fadwa Odeh**, Areej M Jaber, Mazen A. M. Al Sulaibi, Walhan AlShaer, Abeer Al Bawab, Mohammad Mubarak, “**Chapter 12, Phytosomes: a modernistic approach to the delivery of herbal drugs**”, 2023, 301-355, in *Advanced and Modern Approaches in Drug Delivery*, Amit Kumar Nayak, Md Saquib Hasnain, Bibek Laha, Sabyasachi Maiti (Eds), Elsevier, <https://doi.org/10.1016/C2021-0-01210-4>
2. Hamdi Nsairat, Abed Alqader Ibrahim, Areej Jaber, Sharif Abdelghani, Randa Atwan, Naeem Shalan, Hiba Abdelnabi, **Fadwa Odeh**, Mohamed El-Tanani, Walhan AlShaer “**Liposome bilayer stability: emphasis on cholesterol and its alternatives**” *Journal of Liposome Research*, 2023, <https://doi.org/10.1080/08982104.2023.2226216>
3. Fedaa Adaileh, Walhan Alshaer, Hamdi Nsairat, Dana A Alqudah, Suha Wehaibi, Fadwa Daoud, Rula Al-Buqain, Shrouq Alsotari, Abeer Al Bawab, **Fadwa Odeh**, “**Curcumin-loaded γ -cyclodextrin-grafted hyaluronic acid nanoassemblies: In vitro investigation of anti-proliferative, wound healing, and anti-inflammatory potential**” *Journal of Drug Delivery Science and Technology*, 2023, 87, 104886, <https://doi.org/10.1016/j.jddst.2023.104886>

4. Hamdi Nsairat, Walhan AlShaer, **Fadwa Odeh**, Ezzaldeen Essawi, Dima Khater, Abeer Al Bawab, Mohamed El-Tanani, Abdalla Awidi, Mohammad S Mubarak “**Recent Advances in Using Liposomes for Delivery of Nucleic Acid-Based Therapeutics**” *OpenNano*, **2023**, 11, 100132.
5. Manal Alkhabbas, **Fadwa Odeh**, Khitam Alzughoul, Razan Afaneh, Waed Alahmad “**Jordanian Kaolinite with TiO₂ for Improving Solar Light Harvesting Used in Dye Removal**” *Molecules*, **2023**, 28(3), 989.
6. Hamdi Nsairat, Dima Khater, Usama Sayed, **Fadwa Odeh**, Abeer Al Bawab, Walhan Alshaer “**Liposomes: Structure, composition, types, and clinical applications**” *Heliyon*, **2022**, 8(5), e09394.
7. **Fadwa Odeh**, Muna Abu- Dalo, Borhan Albiss, Noor Ghannam, Aya Khalaf, Hiba H. Amayreh, Abeer Al Bawab “**Coupling Magnetite and Goethite Nanoparticles with Sorbent Materials for Olive Mill Wastewater Remediation**” *Emergent Materials*, **2022**, 5(1), 77-88.
8. Bayan Al Tbakhi, Hamdi Nsairat, Walhan Alshaer, Abdulfattah Al-Kadash, Wissam Helal, Lubna Alrawashdeh, Anthony Day, Khaleel I. Assaf, Rola Hassouneh, **Fadwa Odeh** and Abeer Al Bawab “**Cinnamaldehyde–cucurbituril complex: investigation of loading efficiency and its role in enhancing cinnamaldehyde in vitro anti-tumor activity**” *RSC Advances*, **2022**, 12, 7540-7549.
9. **Fadwa Odeh**, Fedaa Adaileh, Walhan Alshaer, Hamdi Nsairat, Dana A. Alqudah, Areej M. Jaber and Abeer Al Bawab “**Synthesis of Mono-Amino Substituted γ -CD: Host–Guest Complexation and In Vitro Cytotoxicity Investigation**” *Molecules*, **2022**, 27(5), 1683.
10. Lubna Alrawashdeh, Khaleel I. Assaf, Walhan Alshaer, **Fadwa Odeh** and Suhair A. Bani-Atta “**Preparation, characterization, and biological activity study of thymoquinone-cucurbit[7]uril inclusion complex**” *RSC Advances*, **2022**, 12, 1982-1988.
11. Nour Alnairat, Muna Abu Dalo, Rund Abu-Zurayk, Saida Abu Mallouh, **Fadwa Odeh**, Abeer Al Bawab “**Green Synthesis of Silver Nanoparticles as an Effective Antibiofouling Material for Polyvinylidene Fluoride (PVDF) Ultrafiltration Membrane**” *Polymers*, **2021**, 13(21), 3683
12. Hamdi Nsairat, Dima Khater, **Fadwa Odeh***, Fedaa Al-Adaileh, Suma Al-Taher, Areej M. Jaber, Walhan Alshaer, Abeer Al-Bawab, Mohammad S. Mubarak “**Lipid nanostructures for brain cancer targeting**” *Heliyon*, **2021**, 7(9), e07994

13. Dima Khater, Hamdi Nsairat, **Fadwa Odeh***, Mais Saleh, Areej Jaber, Walhan Alshaer, Abeer Al Bawab, Mohammad Mubarak* **“Design, Preparation, and Characterization of Effective Dermal and Transdermal Lipid Nanoparticles: A Review”** *Cosmetics*, **2021**, 8(2), 39
14. Hamdi Nsairat, Ismail S. Mahmoud, **Fadwa Odeh**, Duaa Abuarqoub, Hafsa Al-Azzawi, Rand Zaza, Malak I. Qadri, Said Ismail, Abeer Al Bawab, Abdalla Awidi and Walhan Alshaer, **“Grafting of anti-nucleolin aptamer into preformed and remotely loaded liposomes through aptamer-cholesterol post-insertion”** *RSC Advances*, **2020**, 10, 36219-36229
15. Faisal Suleiman Mustafa, Gizem Sanilturk, Mumtaz Guran, **Fadwa Odeh**, Walhan Alshaer' Rula Al Buqain, Mustafa Gazi. **“Fabrication of a novel nontoxic trichlorophenol-epichlorohydrin-based compound with high antimicrobial activity and thermal stability”**, *Journal of Environmental Science and Health, Part A Toxic/Hazardous Substances and Environmental Engineering*, **2020**, 55, <https://doi.org/10.1080/10934529.2020.1806633>
16. Kassab, Gh.; Khater, D.; **Odeh, F.**; Shatanawi, Kh.; Halalsheh, M.; Arafah, M.; and van Lier, J. **“Impact of nanoscale magnetite and zero valent Iron on the batch-wise anaerobic co-digestion of food waste and waste-activated sludge”**, *Water*, **2020**, 12(5), 1283.
17. **F Odeh**, H Nsairat, W Alshaer, M Ismail, E Esawi, B Qaqish, A Al Bawab and S Ismail **"Aptamer Chemistry: Chemical modifications and conjugation strategies"**, *Molecules*, **2020**, 21, 3.
18. Shraim, Ala'a; Hunaiti, Abdelrahim; Awidi, Abdalla; Alshaer, Walhan; Ababneh, Nidaa; Abu-Irmaileh, Bashaer; **Odeh, Fadwa**; Ismail, Said **"Developing and Characterization of Chemically modified RNA Aptamers for targeting Wild type and Mutated c-KIT Receptor Tyrosine Kinases”** *J. Med. Chem.*, 2020, 63(5), 2209-2228.
19. Awwadi, Firas; Taher, Deeb; Alwahsh, Manal; **Odeh, Fadwa**; Ruffer, Tobias; Schaarschmidt, Dieter; Lang, Heinrich, **"Halogen Bonding Interactions in Halopyridine Iodine Monochloride Complexes. Theoretical, NMR Studies and the Crystal Structure of Four Halopyridine Iodine Monochloride Compounds"**, 2020, *Crystal Growth & Design*, 20, 543.
20. **F Odeh**, R Naffa, H Azzam, I Mahmoud, W Alshaer, A Al Bawab, and S Ismail, **“Co-encapsulation of thymoquinone with docetaxel enhances the encapsulation efficiency into PEGylated liposomes and the chemosensitivity of MCF7 breast cancer cells to docetaxel”**, **2019**, *Heliyon*, 5, 2919.

21. **F Odeh**, H Nsairat, W Alshaer, S Alstori, R Buqaien, S Ismail, A Awidi, and A Al Bawab, “**Remote loading of curcumin-in-modified β -cyclodextrins into liposomes using a transmembrane pH gradient**”, 2019, RSC Advances, 9, 37148.
22. Walhan Alshaer, Manar Zrikat, Amer Amer, Hamdi Nusirat, Zainab Lafi, Dana A. Alqudah, Enas Alqadi, Tasneem Alsheleh, **Fadwa Odeh**, Malek Zihlif, Yasser Bustanji, Abdalla Awidi, “**Encapsulation of Echinomycin in Gamma-Cyclodextrin inclusions into liposomes: in vitro anti-proliferative and –invasive activity in glioblastoma**”, 2019, RSC Advances, 9(53), 30976-30988.
23. Al-Jaber H; Al-Qudah M; **Odeh F** and Abu Zarga M. “**Two new 28-noroleanane type triterpenoids and other constituents from Gladiolus Atroviolaceus growing wild in Jordan**”. 2019, Jordan Journal of Chemistry, 14(1), 11-16.
24. **Odeh F.**, Atta S.B., Al Atawi L., Bozeyya A., Al Bawab A. (2018) **Exploring Nano-Materials for Consolidation of Cultural Heritage Using NMR as a Noninvasive Technique**. In: Kouï M., Zezza F., Kouï D. (eds) 10th International Symposium on the Conservation of Monuments in the Mediterranean Basin. MONUBASIN 2017. Springer, Cham
25. **Fadwa Odeh**; Abeer Al Bawab and Yuzhuo Li, “**Dynamic NMR Study of Model CMP Slurry Containing Silica Particles as Abrasives**”, 2018 IOP Conf. Ser.: Mater. Sci. Eng. 305 012023.
26. Abeer Al Bawab, Noor Ghannam, Saida Abu-Mallouh, Ayat Bozeyya, Rund A. Abu-Zurayk, Yazan A. Al-Ajlouni, Fida'a Alshawawreh, **Fadwa Odeh** and Muna A. Abu-Dalo, “**Olive mill wastewater treatment in Jordan: A Review**”, 2018 IOP Conf. Ser.: Mater. Sci. Eng. 305
27. Abeer Al Bawab, Noor Ghannam, Rund A Abu-Zurayk, **Fadwa Odeh**, Ayat Bozeyya, Saida Abu Mallouh, Nathir AF Al-Rawashdeh, Muna A Abu-Dalo, “**OLIVE MILL WASTEWATER REMEDIATION BY GRANULAR ACTIVATED CARBON IMPREGNATED WITH ACTIVE MATERIALS**”, 2018, Fresenius Environmental bulletin, 27(4), 2118-2126.
28. Walhan Alshaer; Nidaa Ababneh; Mamon Hatmal; Heba Izmirli; Moujab Choukifie; Alaa Shraim; Nour Sharar; Aya Abu-Shiekah; **Fadwa Odeh**; Abeer Al Bawab; Abdalla Awidi; Said Ismail, “**Selection and Targeting of EpCAM Protein by ssDNA Aptamer**” 2017, PLOS ONE, 12(12), e0189558.<https://doi.org/10.1371/journal.pone.0189558>
29. Abeer Al-Bawab, Ramadan Abd-Allah, Heba Al-Hamati, **Fadwa Odeh**, Ayat Bozeyya, “**Consolidation of Archaeological Basalt Stone: A new Experimental Protocol by using Different Dispersions Formulation**” *Inter. J. Conserv. Sci.*, 2017, 8(2), 187-198.

30. Said Ismail and **Fadwa Odeh**, **Liposomal formulations comprising thymoquinone and taxane, and methods of treating cancer using same**, WO2016005786 A1, Publication date **January 2016**, Priority date July 2014, Application number PCT/IB2014/002258.
31. **Fadwa Odeh**, Hala Al-Jaber and Dima Khater (2014). **Nanoflora — How Nanotechnology Enhanced the Use of Active Phytochemicals**, *Application of Nanotechnology in Drug Delivery*, PhD. Ali Demir Sezer (Ed.), ISBN: 978-953-51-1628-8, InTech, DOI: 10.5772/58704. Available from: <http://www.intechopen.com/books/application-of-nanotechnology-in-drug-delivery/nanoflora-how-nanotechnology-enhanced-the-use-of-active-phytochemicals>
32. Abeer Al Bawab, **Fadwa Odeh**, Haneen Al Ashqar, Ayat Bozeyya, Heba Al Hamati, Mona Sharar, Ramadan Abd-Allah, and Maram Nae's "Conservation materials and archaeometry techniques in Jordan (2000-2012): A Review, 9th International Symposium on the Conservation of Monuments in the Mediterranean Basin, Improvement in the Conservation and Rehabilitation, Integrated Methodology, Ankara, Turkey, 2014
33. Abeer Al Bawab, Ayat Bozeyya, and **Fadwa Odeh** "Effect of Surfactant Tail Structure on Phase Behavior of Branched and Linear Alkylbenzene Sulfonate in Water and Oil Ternary Systems" *GSTF International Journal of Chemical Sciences (JChem)*, 2014, 1(2), 32-39.
34. Rana Abu Dahab, **Fadwa Odeh**, Said I Ismail, Hanan Azzam and Abeer Al Bawab "Preparation, characterization and antiproliferative activity of thymoquinon- β -cyclodextrin self assembly nanoparticles" *Die Pharmazie*, 2013, 86(12), 939-944.
35. **Fadwa Odeh**, Abeer Al Bawab, Manar Fayyad and Ayat Bozeyya "Surfactant enhanced olive oil mill wastewater remediation" ICESD 2013: January 19-20, Dubai, UAE, *APCBEE Procedia*, 2013, 5, 96-101.
36. Malek A. Zihlif, Ismail S. Mahmoud, Majd T. Ghanim, Manar S. Zreikat, Nasr Alrabadi, Amer Imraish, **Fadwa Odeh**, Manal A. Abbas and Siad O. Ismail, "Thymoquinone efficiently inhibits the survival of EBV-infected B cells and alters EBV gene expression" *Integr. Cancer Ther.*, 2013, 12(3), 257-263.
37. **Fadwa Odeh**, Said I. Ismail, Rana Abu-Dahab, Ismail S. Mahmoud, and Abeer Al Bawab "Thymoquinone in liposomes: a study of loading efficiency and biological activity towards breast cancer" *Drug Delivery*, 2012, 19(8), 371-377.
38. Egon Matijevic (*Editor*), *Fine Particles in Medicine and Pharmacy*, 2012, (Springer). "Medicine in reverse: Colloid technologies for combating chemical overdose", by Richard Partch, Adrienne Stamper, Evon Ford, Abeer Al Bawab and **Fadwa Odeh**.

39. **Fadwa Odeh**, Abeer Al Bawab and Yuzhuo Li, “Self-assembly behavior of benzotriazole in water”, *J. Disper. Sci. Technol.*, **2010**, 31, 162-168.
40. Stig E. Friberg, Abeer Al-Bawab, **Fadwa Odeh**, Ayat Bozeyya and Patricia A. Aikens, “Emulsion evaporation path. A first comparison of experimental and calculated values”, *Colloids and Surfaces A: Physicochem. Eng. Aspects*, **2009**, 338, 102–106.
41. Abeer Al Bawab, **Fadwa Odeh**, Ayat Bozeyya, Patricia Aikens and Stig Friberg, “A comparison between the experimental and estimated evaporation paths from emulsions”, *Flavour and Frag. J.*, **2009**, 24, 155-159.
42. David Rovnyak and Robert Stockland Jr. (Editors), ACS Symposium Series 969, **Modern NMR Spectroscopy in Education**, American Chemical Society, Washington DC, **2007**, **Fadwa Odeh** and Yuzhuo Li, “Dynamic NMR in an advanced Laboratory”.
43. **Fadwa Odeh**, Nicole Heldt, Michele Gauger, Gregory Slack and Yuzhuo Li, “PFG-NMR investigation of liposome systems containing hydrotrope”, *J. Disper. Sci. Technol.*, **2006**, 27, 665-669.

PROFESSIONAL SERVICES

ACTIVE TECHNICAL JOURNAL AND CHAPTER REVIEWER

- Review Editor for Frontiers in Chemistry
- ACS Books
- Referee for King Abdulla II Award
- Reviewer for Abdul Hameed Shoman Foundation Fund
- Journal of Applied Biomedicine
- Drug Delivery
- Polish Journal of Chemical Technology
- Jordan Journal of Chemistry (JJC)
- Current Pharmaceutical Design
- Letters in Drug Design & Discovery
- Molecules

OUTREACH ACTIVITIES

- Organized the second Chemistry festival in Jordan
- Organized the first Chemistry Festival in Jordan
- Organized and chaired the 16th Jordan Chemistry Conference
- Vice president of the Jordanian Chemical Society
- Promoter of chemistry and science in early education levels by supporting scientific competitions in schools
- Promotor of Chemical Safety and security in Laboratories in schools, universities and industry (held several trainings for chemical safety in laboratories)

- Hosting and advising PhD students from the Universities of Staif, and El Oued, Algeria during their research internship in Jordan.
- Permanent member of the technical committee for coating and packaging, Division of Chemical Industries, Standardization Department, Jordan Standards and Metrology Organization (JSMO), Amman, Jordan

MEMBER OF ORGANIZING/SCIENTIFIC /ADVISORY COMMITTEES OF CONFERENCE

- Member of the international scientific committee, 4th International Congress of Chemists and Chemical Engineers in Bosnia and Herzegovina (**ICCEB&H 2020**) that will be held in Sarajevo, Bosnia & Herzegovina on 8-10 October, (postponed due to Covid-19 spread).
- Member of the international scientific committee of the 1st International Conference on Materials, Energy and Environment (**MEE'2020**), that was held on 20-21 January, 2020, El Oued, Algeria.
- Chair of the 16th Jordanian Chemistry Conference that was held in JU in 4th April 2019

GRADUATE STUDENTS SUPERVISION

- Shorouq Al Sotary (PhD student with collaboration with Dr Walhan AlShaer-current)
- Aya Khreis (MSc student-current)
- Majdoeeln Al Kilani (PhD student with collaboration with Dr Walhan AlShaer-current)
- Fedaa Al Adaileh (PhD student with collaboration with Prof Abeer Al Bawab- graduated)
- Lubna Al Tarawneh (MSc student with collaboration with Prof Abeer Al Bawab-graduated)
- Safa Husein (MSc student with collaboration with Dr Khaleel Assaf-graduated)
- Suma Al Taher (MSc student with collaboration with Dr Walhan AlShaer-graduated)
- Hamdi Nsairat (PhD student in collaboration with Prof Abeer Al Bawab, graduated)
- Bayan Al Tbakhi (MSc student in collaboration with Prof Abeer Al Bawab, graduated)
- Dima Khater (PhD, in collaboration with Prof Hala Al Jaber, graduated)
- Aziza Madhi (MSc in collaboration with Prof Fawwaz Al Khalili, graduated)
- Faisal Mustafa (MSc in collaboration with Prof fawwaz Al Khalili, graduated)
- Duaa Abu Rmaileh (MSc, graduated)

MASTER THESIS AND PhD DISSERTATION EXAMINING COMMITTEES

- Farah (HU, 2023)
- Doaa Abo Dalo (JU, 2023)
- Heba Al Amayereh (JU 2021)
- Nour Al Nairat (JU 2020)
- Farah Mustafa (HU 2019)
- Tahany Al Debsi (Al Zaytoona University, 2019)
- Ayat Bozeyeh (JU 2018)
- Fatema abdaullah (JUST 2018)
- Heba Kanaan (JUST 2017)

- Noura mohammed (JUST 2017)
- Noor Ghannam (JU 20016)
- Fida'a Al Shawawreh (JU 2015)
- Mona Sharar (JU 2014)
- Fuad Habjouqa (JU 2011)
- Walhan AlShaer (JU 2009)
- Eman Ahmad (JU 2009)

UNDERGRADUATE RESEARCH MENTORSHIP

- Shahd Issam Elian
- Malak Ziad Abu Jebba
- Sally Yayia Ziadat (2020)
- Raghad Salah Al Abbadi
- Halla Fawzi Ali
- Reem Raed Habash
- Amal Mazen Amer
- Laith Hiari

PROFESSIONAL MEMBERSHIP & AFFILIATIONS

Membership

- Member in American Chemical Society (ACS), 2010-present
- Member in the Jordanian Chemical Society, 2006-present, / Member of the administrative body 2018-Now