

## Curriculum Vitae

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### Hatem Alsyouri, Ph.D.

Associate Professor  
Chemical Engineering Department  
College of Engineering and Technology  
The University of Jordan, Amman - Jordan  
In academic leave to:  
American University of the Middle East, Egaila, Kuwait  
ORCID profile: <https://orcid.org/0000-0002-6569-9081>



### Personal Details

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Mobile : +965-9667 8903 (Kuwait, whatsapp); +962-79-989 9199 (Jordan)  
Email : [hatem.alsyouri@aum.edu.kw](mailto:hatem.alsyouri@aum.edu.kw) / [Alsyouri@ju.edu.jo](mailto:Alsyouri@ju.edu.jo)  
Nationality : Jordanian  
Date of Birth : 1 March 1975  
Marital Status : Married with 3 children

### Education / Qualification

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|--|-----------------------------|--------|------|
| • MBA, Quality Management  | German Jordanian University | Jordan | 2010 |
| • PhD, Chemical Engineering  | University of Cincinnati    | USA    | 2004 |
| ○ Combined MSc and PhD degree with a total of 135 credit hours.  |                             |        |      |
| ○ Dissertation: "Synthesis of ordered mesoporous silica and alumina with controlled macroscopic morphologies". Supervisor: Prof. Jerry Y.S. Lin. |                             |        |      |
| • BSc, Chemical Engineering  | The University of Jordan    | Jordan | 1998 |

### Certifications

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|---|--------|------------|
| • Consultant Engineer in Chemical Engineering – Engineering Education and Quality | Jordan | 19/12/2018 |
| ○ Jordan Engineers Association (JEA), and   |        |            |
| ○ Jordan Higher Council for Professional Qualification and Accreditation          |        |            |

### Prizes, Awards, and other Honors

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|---|--------|-------------|
| • Distinguished supervisor for undergraduate projects. <i>King Abdullah II Fund for Development (KAFD)</i>                        | Jordan | 2013        |
| • First Place in student paper contest. <i>Eighth International Conference on Inorganic Membranes (ICIM-8). Cincinnati, Ohio.</i> | USA    | 22/07/2004  |
| • Outstanding Graduate Student in Research Award. University of Cincinnati.   | USA    | 20/05/2004  |
| • Scholarship from University of Cincinnati. <i>to complete the Ph.D. degree in Chemical Engineering</i>                          | USA    | 1999 - 2004 |

## Academic and Professional Work History

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- ◇ **American University of the Middle East (Kuwait)** **15/09/2015** - **Now**
- Department Chair, Chemical Eng. Department 04/04/2017 - now  
**Responsibilities:**  
Coordinate student, faculty, and department matters. Review curriculum, learning enhancement and accreditation. Upgrade of facilities and resources. Organized procurement. Coordination of Extra-curricular activities. Communicate with supporting units (exam unit, IT, student advancement center, registrar, tutoring center, HR, students affair, admission, AUM facilities, & Marketing). Manage graduation and course projects with coordinators. Coordinate academic fairs. Oversee performance of committees. Perform staff requirement and hiring process, Evaluate faculty members and staff. Approved exams. Submit final grades Supervised course folders. Prepare annual departmental reports.
  
  - Program coordinator, Chemical Eng. Department 25/09/2016 - 03/04/2017  
**Responsibilities:**  
Revised academic manual, degree requirements, and plan of study of CHE. Prepared critical path. Supervise CHE course offerings. Organized CHE lab establishment. Drafted curriculum and lab requirements for new BSc engineering programs.
  
  - Associate Professor, Chemical Engineering Department 15/09/2015 - Now  
**Responsibilities:**  
Teach chemical engineering courses. Supervise course projects. Perform accreditation measurements and evaluations. Suggest curriculum modifications. Run continuous improvement actions. Prepare proposals. Run research activities. Prepare publications. Perform committee tasks for the department and college.  
Courses taught (detailed in a separate section)
- ◇ **The University of Jordan (Jordan)** **07/09/2008** - **Now**
- Academic leave to Kuwait 15/09/2015 - now
  
  - Assistant dean for Quality and Development, School of Eng. 04/09/2014 - 14/09/2015  
**Responsibilities:**  
Supervised ABET accreditation for 3 engineering programs (chemical, mechanical, & electrical). Organized preparations of self-study reports (SSR). Managed changes in pre-requisites and curricula to comply with accreditation requirements. Organized procurement and maintenance for engineering labs. Arranged course evaluations and student advising with IT. Unified engineering requirements in the engineering curricula of all programs for the local accreditation. Maintained accreditation progress meetings with management, dean, representatives, and supporting units. Prepared college annual report.
  
  - Associate Professor, Chemical Engineering Department 10/02/2014 - 14/09/2015  
**Responsibilities:**  
Taught undergraduate courses. Supervised undergraduate design projects. Taught MSc courses and supervised MSc research and theses. Examined M.Sc. theses. Acquired research grants. Performed research activities. Prepared research publications. Participated in committees for academic and community services. Prepared accreditation measurements and documents. Reviewed papers and reports. Provided training and consultation.  
Courses taught (detailed in a separate section)
  
  - Assistant Professor, Chemical Engineering Department 07/09/2008 - 09/02/2014  
**Responsibilities: Same as above**

- ◇ **Prince Al-Hussein Academy of Civil Protection –** **07/09/2010** **14/09/2015**  
 administered by Al Balqa Applied University, (Jordan)
- Part-time Lecturer, Fire and Safety Engineering department
- Responsibilities:**  
 Taught several courses on safety and risk assessment. Supervised graduation projects.
- ◇ **Georgia Institute of Technology, Atlanta (USA)** **05/01/2005 - 15/02/2006**
- Post-Doctor, Chemical and Biomolecular Engineering.
  - Supervisor: Prof. Ronald W. Rousseau.
- Responsibilities:**  
 Performed research on “Separation of aqueous complex sodium salt mixtures from complex low/medium curie waste by fractional crystallization”. Trained two PhD candidates who run this research with me. Managed purchases of equipment and research requirements. Built a customized crystallization unit with data acquisition to run the project. Maintained submission of bi-weekly report on research project. Participated in conference presentations. Prepared research publication.
- ◇ **Royal Scientific Society (Amman, Jordan)** **19/02/2006 - 01/10/2008**
- Researcher and Deputy Director, Industrial Chemistry Center
- Responsibilities:**  
 Prepared research proposals. Performed research activities. Published research outcomes. Participated in conferences and workshops. Managed operations, logistics, staffing, work scheduling, resource capacity and accreditation of service laboratories. Prepared strategic and business planning. Organized marketing activities and new developments. Established new communication channels with local and international organizations and industries. Provided specialized technical training courses, e.g., X-Ray techniques; XRD and XRF. Developed new tests (Identification of Asbestos in sample using XRD) that generated new line of revenue.
- ◇ **Al-Jubail Energy & Environment (Amman, Jordan)** **01/01/1999 - 01/08/1999**
- Sales & Maintenance Engineer
- ◇ **Nur Chemicals & Eng. Industries (Amman, Jordan)** **10/06/1998 - 20/12/1998**
- Research & Development Engineer

## Courses Taught

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• Chemical Eng. (BSc)	Chemical Engineering Calculations; Mass Transfer Operations; Heat & Mass Transfer Operations; Local Chemical Industries; Process Modeling by Statistical Methods; Fluid Mechanics; Chemical engineering Lab 3; Graduation project
• Chemical Eng. (elective)	Separation Processes
• Chemical Engineering (MSc)	Transport Phenomena; Mass Transfer.
• General Educational Electives	Principles of Safety; Jordanian Industries
• Safety	Risk Assessment. Research Methodology; Engineering Economics; Principles of Safety; Occupational Safety and Health; Passive Fire Protection.
• Science	General Chemistry I; Modern Mechanics
• Professional Training courses	"XRD and XRF Instrumental Analysis" 3-days. "Physical and chemical properties of petroleum hydrocarbon compounds"

## MSc Theses Supervised & Examined

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### a) Supervised

1. **Raia Manaseer.** “Development and Optimization of multiparticulate system with enteric dual release of Dexlansoprazole”. 6/2015 – 12/2016  
Supervisors: Dr. H.M. Alsyouri (Chemical Engineering) and Dr. H.S. Al-Khatib (Pharmacy). The University of Jordan.
2. **Suhad Ahmad.** “Nano-structured Kaolin for Removal of Toxic Heavy Metals from Industrial Wastewater”. 6/2015 – 7/2016  
Supervisors: Dr. H.M. Alsyouri (Chemical engineering department, University of Jordan) and Prof. Akl Awwad (Chemistry, Royal Scientific Society).
3. **Suhaib Dweiri.** “Studying the galvanic corrosion behavior of Pd-Cu in diluted hydrochloric acid at various operating conditions”. 5/2012 – 6/2014  
Supervisors: Dr. H.M. Alsyouri (Chemical engineering department, University of Jordan) and Prof. Farqad Saeed (Chem. Eng., Royal Scientific Society).
4. **Baraa Matalqa.** “Evaluation of controlled drug delivery of highly water soluble drugs in ordered mesoporous silica fibers”. 5/2012 – 1/2014  
Supervisors: Dr. H.M. Alsyouri (Chemical Engineering) and Dr. H.S. Al-Khatib (Pharmacy). The University of Jordan
5. **Nahil Khouri.** “Comparing the membrane distillation desalination performance of the novel hydrophobic / hydrophilic membranes to the commercial membranes” 9/2010-5/2012  
Supervisors: Dr. M.R. Qtaishat and Dr. H.M. Alsyouri. Chemical engineering department, University of Jordan

### b) Examined

1. **By Mohammad Alsafadi.** Studying the Effect of Operating Conditions on the Performance of Proton Exchange Membrane (PEM) Fuel Cell. Jordan University of Science and Technology Jan 2014
2. **Ahmad A. Radwan.** “Sub- and Super-critical Extraction for Jordanian Oil Shales”. The University of Jordan. Aug 2012
3. **Asma Al-Sawalkah.** “The Effect of Additives on the Operating Conditions of Kaolinitic Polymerization”. The University of Jordan. May 2010
4. **Amani Farah.** “Preparation of Procaine Salts of an Acidic Drug and Application in Controlled Release Formulations”. The University of Jordan. Aug. 2008

## Professional Development (Courses, workshops, and research visits)

	Date
1 “ <b>Simulink Onramp</b> ” training course Location and organizer: MATHWORKS (online)	08 to 14 Oct 2023
2 “ <b>MATLAB Onramp</b> ” training course Location and organizer: MATHWORKS (online)	01 to 15 Aug 2023
3 “ <b>Utilizing Artificial Intelligence in research and teaching</b> ” training Location and organizer: Organized by a group of faculty members, USA (online)	04 May 2023
4 <b>Imagining and implementing a preferred future for Education at AUM and ACM</b> ” workshop Location and organizer: American University of the Middle East	11 Dec 2022

- 5 **“Using Turnitin for Originality Check”** training 20 Sep 2022  
Location and organizer: The University of Jordan (online)
- 6 **“Fundamentals of Life Cycle Assessment”** training course 20 to 24 June 2022  
Location and organizer: Udemy (online)
- 7 **“Excel Charts - Visualization Secrets for Impressive Charts” (8.5 hours)** 29 June 2021  
Location and organizer: Udemy (online)
- 8 **“Excel Interactive Dashboards and Data Analysis” (5 hours),** 27 June 2021  
Location and organizer: Udemy (online)
- 9 **Training on Chemical Experimental Devices,** CHE labs, American University of 04 – 07 June 2018  
the Middle East (Kuwait) by: Gunt Equipment for Engineering Education.
- 10 **ABET Program Assessment Workshop (14 hours)** 24-25 Sep 2016  
Location: COET, American University of the Middle East (Kuwait)  
Organized by: ABET
- 11 **Research Visit** June - Sep 2013.  
Supported by: IMACS - Erasmus Mundus scholarship  
Location: Technical University of Crete (Greece) and University of Aveiro  
(Portugal).  
Research: "Zeolite and Kaolin based geopolymers for membrane coating and water  
desalination".
- 12 **Research Visit** June – Sep.2011.  
Supported by: DFG fellowship,  
Location: Technical University of Munich (TUM), Munich, Germany. Research:  
“Magnetic preparation of ordered mesoporous materials” Johannes A. Lercher Group
- 13 **Research Visit** Sep. 2010.  
Supported by: SRTD EU.  
Location: Technical University of Munich (TUM), Munich, Germany.  
Research: “Synthesis of mineral- based membranes” Johannes A. Lercher Group.
- 14 **Research Visit** June – Sep. 2009.  
Supported by: DFG fellowship,  
Location: Technical University of Munich (TUM), Munich, Germany.  
Research: “Diffusion in ordered mesoporous silica” Johannes A. Lercher Group,
- 15 **“ISO 9001:2000 Appreciation and Interpretation”** Training 08-09 June 2008  
Location: Royal Scientific Society (Jordan)  
Organized by: Quality assurance center
- 16 **"Project Management using MS Project"** Training workshop 2008  
Location: Royal Scientific Society (Jordan)  
Organized by: Training Center.
- 17 **"Drafting Patent Claims"** Training workshop 2008  
Location: Royal Scientific Society (Jordan)  
Organized by: WIPO - Jordan Innovation Center
- 18 **“Business Innovation Workshop: Innovate or Die”** 24-26 June 2007  
Organized by: Queen Rania Center for Entrepreneurship  
Location: Royal Scientific Society (Jordan).
- 19 **"Integrity of Industrial Materials"** Research Workshop 2007  
Organized by: Pakistani Material Research Society  
Location: Islamabad, Pakistan
- 20 **“Marketing Strategic Planning”** training course (9 hours) 24-25 Nov 2006  
Organized by: Talal Abu Ghazaleh College of Business

	Location: TAGCB, Amman, Jordan	
21	<b>"Leadership"</b> training Location: Royal Scientific Society (Jordan) Organized by: Training center	16-23 Mar 2006
22	<b>"Time Management"</b> training Location: Royal Scientific Society (Jordan) Organized by: Training center.	20-21 Apr 2006
23	<b>"OHSAS Appreciation and Interpretation"</b> training workshop Location: Royal Scientific Society (Jordan) Organized by: Lloyd's Register Quality Assurance	2006

## Professional Training given

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1. Offered a 3-day training course on "XRD and XRF Instrumental Analysis" to technicians from the criminal investigation labs - Royal Scientific Society (RSS), Amman-Jordan. 2008.
2. Provided a 4-day training course on "Physical and chemical properties of petroleum hydrocarbon compounds" to Engineers from Manaseer group. Amman – Jordan. 2012.

## Consultation Experience

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1. Revision of criteria for accreditation and quality assurance for Engineering Programs (committee member). Presented to Accreditation & Quality Assurance Commission for Higher Education Institutes. Amman-Jordan. 2015
2. Evaluating Accreditation of "Fire fighting and Rescue diploma program" at Al-Balqa Applied University (committee member). Presented to Accreditation & Quality Assurance Commission for Higher Education Institutes. Amman-Jordan. 2013
3. Establishing accreditation criteria for "Fire fighting Engineering program" at Al-Balqa Applied University (committee member). Presented to Accreditation & Quality Assurance Commission for Higher Education Institutes. Amman-Jordan. 2012
4. Provided a consultation to Ayla Construction Chemicals-DCP, Amman-Jordan entitled "Investigating accelerating admixtures for rapid setting and curing of concrete" through Faculty for Factory national program, 2012
5. Provided a consultation to Orbit Steel, Amman-Jordan entitled "Design of a process for fabrication of corrugated sandwich panels" through Faculty for Factory national program. 2010

## Research Experience & Interests

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### a) Areas of research interest \* *ongoing research activities*

- H<sub>2</sub> purification, storage and use as a clean source of energy \*
- CO<sub>2</sub> capture\*
- AI applications in H<sub>2</sub> separation\*
- Geopolymer adsorbents and membranes for water treatment
- Ordered nano-porous materials
- Inorganic membranes

## b) Instrumental skills

Standards techniques	XRD, TGA, FTIR, SEM, N <sub>2</sub> sorption porosimetry and Polarized light microscopy. Trained on XRF, TEM, GC.
Built setups	<ul style="list-style-type: none"><li>• Steady state membrane gas permeation</li><li>• Permporometry system for testing membrane pore size distribution</li><li>• H<sub>2</sub> purification and permeation measurement system</li><li>• Water desalination system for testing of microfiltration membranes</li><li>• Fractional crystallization setup</li><li>• Waste leaching system</li></ul>

## Research Grants

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1. H.M. Alsyouri (P.I), "Synthesis of advanced microporous and mesoporous inorganic membranes". European program for supporting research in Jordan (SRTD), Jordan. Budget: USD 21,100 (JD 15,000), Duration: 2009-2010 (Completed).
2. Farqad Saeed (P.I.), H.M. Alsyouri (Co.I.), and others. "Using electrochemical reaction engineering, biotechnology and solar cell technology to produce Hydrogen and desalinate sea water". Scientific Research Fund, Ministry of Higher Education, Jordan. Budget: \$140,900 (JD 100,000). Duration: 2009 – July 2011 (Completed).
3. H.M. Alsyouri (P.I), "Recycling of Jordanian electronic waste for recovery of precious metals- Phase I". An undergraduate project. King Abdullah II fund for Development (KAFFD) and King Abdullah II Design & Development Bureau (KADDB), Jordan. Budget: \$16,900 (JD 12,000). Duration: 2010- 2011 (Completed).
4. M. Abu-Daabes (P.I.), H.M. Alsyouri (Co.I.), and others. "Sol-Gel Synthesis of Water Desalination Inorganic Membranes from Natural Clays". Scientific Research Fund, Ministry of Higher Education, Jordan. Budget: \$101,400 (JD 72,000). Duration: May 2011 – March 2014 (completed).
5. Farqad Saeed (P.I.), H.M. Alsyouri (Co.I.), and others. "Storing Hydrogen as a Source of Energy Using Nanograde Materials". USAID. Budget \$162,000 (JD 115,000). Duration: 6/2011 – 6/ 2013 (completed).
6. H.M. Alsyouri (P.I), "Recycling of Jordanian Electronic Waste for Recovery of Precious Metals- Phase II". An undergraduate project. KAFFD and KADDB, Jordan. Budget: \$7,000 (JD 5,000). Duration: Jan 2012–Feb 2013 (Completed).
7. H.M. Alsyouri (P.I), "Fabrication and permeation characterization of ceramic membrane supports". An undergraduate project. KAFFD and KADDB, Jordan. Budget: \$8,600 (JD 6,100). Duration: Jan 2012–Feb 2013 (Completed).
8. H.M. Alsyouri (P.I). "Restoration and automation of an obsolete distillation system" Undergraduate project. KAFFD and KADDB, Jordan. Budget: \$10,100 (JD 7,200). Duration: March 2013 – March 2014 (completed).
9. H.M. Alsyouri (P.I). Malyuba Abu Daabes, "Development of an integrated adsorption-membrane system based on novel silica-alumina geopolymers for treatment and recycling of industrial wastewater ". SRTD II. Budget: USD 29,000 (Euro 25,000), Duration: 2015-2016 (completed).

## Community Service activities

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1. Presented invited talk about "Nano structured Materials and Membranes", presented at Joint Egyptian-Jordanian Workshop on Technical and Research Collaboration. Amman, Jordan. December 2014.
2. Member of organization committee of "7th Jordan International Chemical Engineering conference", Jordan Engineers Association, Amman-Jordan, 4-6 /11/2014.
3. Organized a workshop on "Nanotechnology and its Industrial Applications" held during the 7th Jordan International Chemical Engineering Conference, Jordan Engineers Association. 4/11/2014.
4. Organized the chemical engineering Alumni Day, Chemical engineering department, The university of Jordan, 28/04/2014.

5. Presented invited talk about "Hydrogen separation using inorganic membranes", An invited lecture presented at the Clean Technology Workshop organized by Royal Scientific Society, Amman, Jordan, Nov. 2011.
6. Member of organization committee of "2nd International Chemical Engineering conference", The University of Jordan, Amman -Jordan. 11-13/10/2010.
7. Presented invited talk about "Nanotechnology: Concepts and selected application", An invited lecture at Jordanian Engineers Association, Jordan, April 2010.
8. Presented invited lecture about "Ordered mesoporous silica materials and membranes", An invited lecture, at the 14th Scientific week: Science and Technology for Sustainable Development, organized by the Higher Council for Science and Technology, Amman, Jordan, Nov 2008.
9. Provided a number of industrial consultations, e.g., through Faculty For Factory program.
10. Reviewer for a number of Journals (e.g., Journal of Membrane Science, Thin Solid Films)
11. Technical reviewer at Higher Council for Science and Technology in Jordan.
12. Member in a number of committees for "Accreditation & Quality Assurance Commission for Higher Education Institutes" in Jordan.
13. Member in an academic committee at Jordan Engineers Association (Jordan).

## Membership in Professional Societies

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- American Institute of Chemical Engineers (AIChE), USA.
- Jordanian Engineers Association, Amman – Jordan. (Membership number: 602477)

## Publications

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### a) Refereed Journals

1. H. Alsyouri; M. Abu Daabes; N. Hamad; S. Abu Mallouh; M. Alshaaer; A. M. Ghrair "Characterization and Gas Permeance Properties of Metakaolin-Based Geopolymer Membranes from Natural and Pure Kaolin", Prepared for submission.
2. H. Alsyouri, F. Al-Hadeethi, Sohaib Dwairi "Corrosion Behavior in Dense Membranes made of Pd-based Alloys", prepared for submission.
3. G. AlQallaf, N. Saloumi, Z. Mohammed, S. AlAwbathani, G. AlMayyas, R. Desouqi, B. Prasad, H. Alsyouri, S. Kar, and E. Iype, "Exploring Vitamin-C Clock Reaction Kinetics through Experimental and Computational Methods", prepared for submission.
4. S. Alzanki, H. Alsyouri, and E. Iype, "Prediction of molecular properties of Porphyrins using machine learning with database screening using Kernel Similarity", in preparation.
5. A. K. Qaroush, M.I Saleh, H. Alsyouri, M Abu-Daabes, A. Eftaiha, K. Assaf, R. Abu-Zaid, A.S. Abu-Surrah, C. Troll, B. Rieger, "In situ activation of green sorbents for CO<sub>2</sub> capture upon end group backbiting", Physical Chemistry Chemical Physics, Vol 24 (20), pp. 12293-12299, 2022.
6. A.K. Qaroush, A.F. Eftaiha, M. Abu-Daabes, H. M. Alsyouri, K. I. Assaf, "New Metrics of Green Sorbents for CO<sub>2</sub> Capturing", Adv Sustain Syst, 4 (7), 1900121 (pp. 1-15), 2020.
7. F.F. Eliyan, H.M. Alsyouri, "Effects of Chloride and Carbonate on Corrosion of API-X100 Pipeline Steel", J. of Materi Eng and Perform, 28: 1728. 2019. doi.org/10.1007/s11665-019-03937-z
8. F. Al-Hadeethi, N. Haddad, A. Said, H. Alsyouri, A. Abdelhadi, "Modeling hydrogen storage on MgH<sub>2</sub> and LiNH<sub>2</sub> under variable temperature using multiple regression analysis with respect to ANOVA", Inter. J. Hydrogen Energy, Vol 42(40), pp. 25558-25564, 2017.
9. F.F. Al-Hadeethi; H.M. Alsyouri, S.A. Dwairi "Modeling the Galvanic Corrosion Behavior with Respect to ANOVA and 3D mapping of Pd-Cu Couple Used in Hydrogen Purification - PEM Fuel cell Hybrid Systems", Inter. J. Hydrogen Energy, Vol 41 (45), pp. 20771-20778, 2016.
10. A.K. Qaroush, D.A. Castillo-Molina, C. Troll, M.A. Abu-Daabes, H.M. Alsyouri, A.S. Abu-Surrah, B. Rieger, "[n]-Oligourea-Based Green Sorbents with Enhanced CO<sub>2</sub> Sorption Capacity", ChemSusChem, 8 (9), pp. 1618-1626, 2015.



11. M.A. Abu-Daabes, H. Abu Qdais, H.M. Alsyouri, "Assessment of heavy metals and organics in municipal solid waste leachates from landfills with different ages in Jordan", *Journal of Environmental Protection*, 4 (4) pp. 344-352, 2013.
12. F. Saeed, H.M. Alsyouri, A. Al-Ghandoor, Y. Al-Husban, A. Abdelhadi, Sarah Al- Weissi, "Developing an integrated solar powered system to generate hydrogen from sea water", *International Journal of Electrochemical Science*, 8 (5), pp. 6311 – 6320, 2013.
13. S.K. Seshadri, H.M. Alsyouri, Y.S. Lin, "Ordered mesoporous silica fibers: effects of synthesis conditions on fiber morphology and length", *Journal of Materials Science*, 48 (20), pp. 7042-7054, 2013.
14. H.M. Alsyouri, M. Abu-Daabes, A. Alassali, J.Y.S. Lin, "Ordered mesoporous silica prepared by quiescent interfacial growth method - effects of reaction chemistry", *Nanoscale Research Letters*, Vol. 8:484, 2013.
15. H. Alsyouri, O.C. Gobin, Andreas Jentys, J.A. Lercher, "Diffusion in circularly ordered mesoporous silica fibers", *Journal of Physical Chemistry C*, 115 (17) pp. 8602-8612, 2011.
16. S.K. Seshadri, H.M. Alsyouri, Y.S. Lin, "Counter diffusion self assembly synthesis of ordered mesoporous silica membranes in straight pore supports", *Microporous and Mesoporous Materials*, 129 (1-2) pp. 228-237, 2010.
17. A.M. Awwad, H.M. Alsyouri, K. A. Jbara, "Viscosities and densities of (N-Acetylmorpholine + Alkanols) at 293.15 to 323.15 K", *Journal of Chemical and Engineering Data*, 53 (7), pp. 1655-1659, 2008.
18. A.M. Awwad, H.M. Alsyouri, M. Abu Daabes, K. A. Jbara, "Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol, + 1-propanol, + 2-propanol, + 1-butanol, and + 2-butanol) at (293.15, 298.15, 303.15, 313.15, and 323.15) K", *Journal of Chemical Thermodynamics*, 40, pp. 592-598, 2008.
19. G. Dumont, L. Nassif, H.M. Alsyouri, R.W. Rousseau, "Pretreatment of Hanford medium-curie wastes by fractional crystallization", *Environmental Science and Technology*, 42 (13) pp. 4940-4944, 2008.
20. H.M. Alsyouri, D. Li, Y.S. Lin, Z. Ye, S. Zhu, "Counter diffusion self assembly synthesis of nanostructured silica membranes," *Journal of Membrane Science*. 282, pp. 266-275, 2006.
21. H.M. Alsyouri, Y.S. Lin, "Diffusion and microstructural properties of ordered mesoporous silica fibers," *Journal of Physical Chemistry B*, 109, pp. 13623-13629, 2005.
22. Z. Ye, H.M. Alsyouri, S. Zhu, and Y.S. Lin, "Catalyst impregnation and ethylene polymerization with mesoporous particle supported Ni-Dimine catalysts", *Polymer*, 44, pp. 969-980, 2003.
23. H.M. Alsyouri and Y.S. Lin, "Effects of synthesis conditions on macroscopic microscopic properties of ordered mesoporous silica fibers", *Chemistry of Materials*, 15 (10), pp 2033-2039, 2003.
24. H.M. Alsyouri, C. Langheinrich, Y.S. Lin, S. Zhu, and Z. Ye "Cyclic CVD modification of straight pore alumina membranes," *Langmuir*, 19 (18), pp. 7307-7314, 2003.
25. Z. Ye, S. Zhu, W.J. Wang, H.M. Alsyouri, and Y.S. Lin, "morphological and mechanical properties of nascent polyethylene fibers produced via ethylene extrusion polymerization with a metallocene catalyst supported on MCM-41 particles," *Journal of Polymer Science Part B: Polymer Physics*, 41 (20), pp. 2433-2443, 2003.
26. Y.S. Lin, I. Kumakiri, B. N. Nair, H.M. Alsyouri, "Microporous inorganic membranes", *Separation and Purification Methods*, 31 pp. 229-379, 2002.

## b) Patent

1. M. Awwad, H.M. Alsyouri, R. Ahmad, "A process for production of red iron oxide pigment", Jordan Ministry of Industry and Trade patent, Acceptance No. 2484. 2008.

## c) Conference Papers

1. S. Alzanki, H. Alsyouri, Eldhose Iype, "Prediction of molecular properties of Porphyrins using machine learning with database screening using Kernel Similarity", AIChE annual conference, USA, 2024.
2. H. M. Alsyouri, Al-Hadeethi F.F., Dwairi S.A. (2019) Studying the Corrosion Behavior of Pd-Cu Alloy Used in Hydrogen Purification Systems. Proceedings of the 1st International Conference on Smart Innovation, Ergonomics and Applied Human Factors (SEAHF). SEAHF 2019. Smart Innovation, Systems and Technologies, vol 150. Springer, Cham. DOI [https://doi.org/10.1007/978-3-030-22964-1\\_12](https://doi.org/10.1007/978-3-030-22964-1_12)
3. H. Alsyouri, "Nano structured Materials and Membranes", Invited talk presented at Joint Egyptian-Jordanian Workshop on Technical and Research Collaboration, Amman, Jordan, December 2014.

4. H.M. Alsyouri, A.M. Ghrair, M.A. Abu-Daabes, "Economic and Robust Macroporous Membranes from Natural Kaolin Clays", AIChE Conference Proceeding, 2013.
5. H. Alsyouri, Ayoup Ghrair, Malyuba Abu Daabes, "Preparation of Economic and Robust Macroporous Membranes from Natural Kaolin Clays", presented at the AIChE annual meeting, San Francisco, CA, USA, November, 2013.
6. H. Alsyouri, "Hydrogen separation using inorganic membranes", An invited lecture presented at the Clean Technology Workshop organized by Royal Scientific Society, Amman, Jordan, Nov. 2011.
7. H. Alsyouri, "Nanotechnology: Concepts and selected application", An invited lecture at Jordanian Engineers Association, Jordan, April 2010.
8. H. Alsyouri, O.C. Gobin, Andreas Jentys, J.A. Lercher, Diffusion in circularly ordered mesoporous silica fibers, A poster presented at the Membranes: Materials and Processes, Gordon Research Conference, New England, USA, June 2010.
9. H. Alsyouri, "Mesoporous silica membranes with porous structures", 2nd International Chemical Engineering Conference, Jordan, October 2010.
10. H. Alsyouri, "Ordered mesoporous silica materials and membranes", An invited lecture, presented at the 14th Scientific week: Science and Technology for Sustainable Development, organized by the Higher Council for Science and Technology, Amman, Jordan, Nov 2008.
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August 2024