
Personal Information

Zayed Al-Hamamre

Place of Birth Bait Ras-Irbid-Jordan
Nationality Jordanian
Material Status Married



Current Address

University of Jordan,
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Education

1984 - 1994	Bait Ras Primary School (Biat Ras-Jordan)
1994 - 1995	Zaid Ben Al-Kattab Secondary School (Irbid-Jordan)
1995	Tawjehei: The general secondary education certificate examination (scientific stream), percentage Average of 94.0 Rating excellent
1995 - 2000	Studying at The Jordan University of Science and Technology at the Chemical Engineering Department, Irbid-Jordan,
June 2000	B.Sc. in Chemical engineering, cumulative average of 83.4/100, rating very good.
April 2001 – May 2003	Studying at Friedrich-Alexander-University Erlangen-Nuremberg, Chemical Engineering Department
May 2003	M.Sc. in Chemical Engineering, cumulative average of 1.4/1, rating excellent (the master thesis was awarded in 2005 by the first DVGW prize)
May 2003 – June 2006	Doctoral student at Friedrich-Alexander-University Erlangen-Nuremberg University, The Fluid Mechanics Institute, Chemical and Bio Engineering department

July 2006 - Dec. 2008 Continue the doctoral study and research assistant at TU- Bergakademie Freiberg (Institute of heat technology and Thermodynamic/Chair of Gas and Heat Technology)

March 2008 PhD in Chemical Engineering/specialization in thermodynamic and reaction engineering.

Practical Experience

Sept. 2013 The head of the chemical Engineering Department/ The university of Jordan

April 2013 Associate prof. at the chemical Engineering department/ the University of Jordan

Sept. 2009- Sept. 2011 The head of the chemical Engineering Department/ The university of Jordan

Sept. 2008-April 2013 Assistant prof. at the chemical Engineering department/ the University of Jordan

June 2008- Aug. 2008 Part time lecturers at the German Jordanian University, Amman-Jordan

Courses that I teach:

Process Modeling by Statistical Methods, Fluid Mechanics. Chemical Engineering Thermodynamics, Chemical Reaction Engineering (1 and 2), Advance chemical Reaction Engineering, Chemical Engineering Principles (1 and 2), Fuel and Energy, Fuel Cells: fundamental and Applications, Mathematical Methods for Chemical Engineering, General Safety Principles, Occupational Safety

Awards

DFG research scholarship for the year 2009, Germany

The DVGW (Deutsch Vereinigung des Gas und Wasserfaches, Leipzig-Germany) award, 2005

Performed Projects

- Development of a burner for sterling engine (Friedrich-Alexander-University Erlangen-Nuremberg, Chemical Engineering Department)
 - Development of a burner for the combustion of low caloric gas for fuel cell applications (Friedrich-Alexander-University Erlangen-Nuremberg, Chemical Engineering Department).
 - Development of a multi-fuel reformer for solid oxide fuel cell (FlameSOFC: <http://www.flamesofc.org/public/>) (Friedrich-Alexander-University Erlangen-Nuremberg, Chemical Engineering Department and TU- Bergakademie Freiberg), *Project supported through the 6th framework programme of the EU.*
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Current Research Projects

- Biodiesel: An Alternative Fuel for Household Appliances
- Studying the possibility of Enhancing heat transfer in gaseous fuel household heating devices utilizing volumetric combustion in porous materials
- Deployment and Investigation of Solar Cooling System in Jordan
- Investigation of the Cool Flame behavior of Jojoba oil
- Biodiesel production from waste cooking oil, olive cake oil and jojoba oil

Refereeing**Journals**

- *IChemE's journals*,
- *Chemical Engineering Research*
- *Design Process Safety and Environmental Protection*
- *Food and Bioproducts Processing*

Industrial Training

June 1999 – September 1999 Training at Jordan Petroleum refining company, Jordan-Zarca, Operational Chemical Engineer

May, 2002 – August, 2002 Training at Framatome-Siemens, Erlangen Germany.

Computer Experiences

- MS Office
- CHEMKIN
- CAD Solid Work

Language Ability

- Arabic: Mother Language
- English: Excellent in writing and speaking
- German: good

Publication List**Conferences**

1. Z. Al-Hamamre, D. Trimis, K. Wawrzinek (2003), Thermal partial oxidation of methane in porous burners for hydrogen production, 7th International Conference on Technologies and Combustion for a Clean Environment (Clean Air VII), Lisbon, Portugal, July 2003.
2. Z. Al-Hamamre, K. Wawrzinek D. Trimis, S. Diezinger (2003), Wasserstoffproduktion durch thermische partielle Oxidation von Methan im Porenbrenner, VDI-GET Verbrennung und Feuerungen - 21. Deutscher Flammentag, Cottbus, September 2003.
3. Z. Al-Hamamre, D. Trimis, K. Wawrzinek (2003), Hydrogen production by thermal partial oxidation of methane in a porous burner, 3rd European Conference on Small Burner and Heating Technology ECSBT3, Aachen, September 2003.
4. S. Diezinger, Z. Al-Hamamre, F. von Issendorff, D. Trimis (2004), Reforming of diesel by thermal partial oxidation in a reactor based on porous burner technology, Fuel Cells Science & Technology, München, Oktober 2004.
5. Z. Al-Hamamre, S. Diezinger, P. Talukdar, F. von Issendorff, D. Trimis (2005), Combustion of Low Calorific Gases from Landfills and Waste Pyrolysis Using Porous Medium Burner Technology, WasteEng 05, Albi (France), Mai 2005.
6. Z. AL-Hamamre, S. Diezinger, A. Mach, F. von Issendorff, D. Trimis (2005), Thermal partial oxidation of diesel in porous reactors for synthesis gas

production, 8th International Conference on Technologies and Combustion for a Clean Environment (Clean Air VIII), Lisbon, Portugal, Juni 2005.

7. S. Diezinger, Z. Al-Hamamre, M. Steven, J. Schäfer, B. Vogel, D. zur Megede, F. von Issendorff, D. Trimis (2005), Theoretical and experimental investigations of the combustion of hydrogen and hydrogen rich mixtures in inert porous burners, 8th International Conference on Technologies and Combustion for a Clean Environment (Clean Air VIII), Lisbon, Portugal, Juni 2005.
8. Z. AL-Hamamre, A. Mach, S. Diezinger, F. von Issendorff, D. Trimis (2005), Thermal Partial Oxidation of Diesel in A porous Burner Based Refromer, 6th HiTACG Symposium, Essen, Germany, October 2005.
9. Z. Al-Hamamre, S. Voß, D. Trimis, Detailed Experimental and Numerical Investigation of the Partial Oxidation of Methane in a Porous Reactor, Proceedings of the European Combustion Meeting 2007, Chania, Crete, Greece, 2007
10. Z. Al-Hamamre, S. Voß, A. Al-Zoubi, D. Trimis, Experimental and Numerical Investigation of the Partial Oxidation of Methane in a Porous Reactor, 9th Conference on Energy for a Clean Environment, Lisbon, Portugal, July 2007.
11. O. van Rheinberg, J. vom Schloss, K. Lucka, H. Köhne, Z. Al-Hamamre, D. Trimis, Development of a Cool Flame Evaporator and TPOX Reformer for the use in a SOFC- System, 9th Conference on Energy for a Clean Environment, Lisbon, Portugal, July 2007.
12. Z. Al-Hamamre, S. Voß, A. Al-Zoubi, D. Trimis, Detailed Investigation of the Partial Oxidation of Methane in a Porous Reactor for Synthesis Gas Production: Experimental and Numerical Study, 23rd Deutscher Flammentag, Berlin, September 2007.
13. Z. Al-Hamamre, Thermodynamic and Kinetic Analysis of Syngas Production from Ethanol Thermal Partial Oxidation, 2009 AIChE Spring National Meeting, Tampa, FL. USA, April 2009
14. Fawaz K. Sweis, Ali Matar, Yousef Mubarak and Zayed Al Hamamre, Regulating the safety issue at the University of Jordan, 2nd International Chemical Engineering Conference, 12-13 October 2010, University of Jordan, Amman, Jordan

Journals

1. Z. Al-Hamamre, S. Diezinger, P. Talukdar, F. von Issendorff, D. Trimis (2005), Combustion of Low Calorific Gases from Landfills and Waste Pyrolysis Using Porous Medium Burner Technology, Process Safety and Environmental Protection, 84(B4): 1–12, Trans IChemE, Part B, July 2006.

2. Z. Al-Hamamre, S. Diezinger, A. Mach, F. v. Issendorff, D. Trimis, Thermal partial oxidation of diesel in porous reactors for synthesis gas production, *Clean Air* 7 (4), pp. 391 – 407, 2006
3. Z. Al-Hamamre, S. Voß, D. Trimis, Characterisation of the emissions behaviour and combustion stability in porous media burner by using low and medium calorific value gases [Charakterisierung des Emissionsverhaltens und der Verbrennungsstabilität von Schwach-und Mittelgasen in Porenbrennern], *Gaswaerme International* 56 (3), pp. 200-204, 2007
4. G. Vourliotakis, G. Skevis, M.A. Founti, Z. Al-Hamamre, D. Trimis, Detailed kinetic modelling of the T-POX reforming process using a reactor network approach, *International Journal of Hydrogen Energy*, Volume 33, Issue 11, Pages 2816-2825, June 2008.
5. Z. Al-Hamamre, S. Voß, D. Trimis, Hydrogen Production by Thermal Partial Oxidation of Hydrocarbon Fuels in Porous Media Based Reformer, *International Journal of Hydrogen Energy*, 2009, 34: 827-823.
6. Z. Al-Hamamre, D. Trimis, Investigation of the intermediate oxidation regime of Diesel fuel, combustion and flame, Volume 156, Issue 9, September 2009, Pages 1791-1798.
7. Z. Al-Hamamre; A. Al-Zoubi; D. Trimis, Numerical investigation of the partial oxidation process in porous media based reformer, *Combustion Theory and Modelling*, Vol. 14, No. 1, 2010, 91–103
8. Z. Al-Hamamre, A. Al-Zoubi, The Use of Inert Porous Media Based Reactors for Hydrogen Production, *International Journal of Hydrogen Energy* 35: 2010; 1971–1986
9. M. R. Abdelkader, A. Al-Salaymeh, Z. Al-Hamamre, Firas Sharaf, A comparative Analysis of the Performance of Monocrystalline and Multicrystalline PV Cells in Semi Arid Climate Conditions: the Case of Jordan, 4(5),2010: 543- 552
10. A. Al-Salaymeh a, Z. Al-Hamamre, F. Sharaf, M.R. Abdelkader, Technical and economical assessment of the utilization of photovoltaic systems in residential buildings: The case of Jordan, *Energy Conversion and Management*, 51 (2010) 1719–1726
11. Z. Al-Hamamre, M. A. Hararah, Hydrogen Production by Thermal Partial Oxidation of Ethanol: Thermodynamics and Kinetics Study, *International Journal of Hydrogen Energy*, 35(2010) 5367-5377.
12. Zayed Al-Hamamre, Sascha Foerster, Franziska Hartmann, Michael Kröger Martin Kaltschmit, Oil extracted from spent coffee grounds as a renewable source for fatty acid methyl ester manufacturing, *Fuel* 96 (2012) 70–76
13. Menwer Attarakih, Tamadur Albaraghi, Mazen Abu-Khader, Zayed Al-Hamamre and Hans-Jorg Bart, Mathematical Modeling of High- Pressure Oil-Splitting Reactor using a Reduced Population Balance Model, *Chemical Engineering Science*, 84 (2012) 276–291

14. A. Fasfous, J. Asfar, A. Al-Salaymeh, A. Sakhrieh, Z. Al_hamamre c, A. Al-bawwab, M. Hamdan, Potential of utilizing solar cooling in The University of Jordan, *Energy Convers Manage* 65 (2013): 729-735
 15. Z. Al-Hamamre, Jojoba is a Possible Alternative Green Fuel for Jordan, *Energy Sources, Part B: Economics, Planning, and Policy*, 8(3), (2013): 217-226
 16. Zayed Al-Hamamre, Jehad Yamin, The Effect of Hydrogen Addition on Premixed Laminar Acetylene-Hydrogen-Air and Ethanol-Hydrogen-Air Flames, *International Journal of Hydrogen Energy*, (2013), 38: 7499 -7509.
 17. Zayed Al-Hamamre, Thermodynamic and Kinetic Analysis of the Thermal Partial Oxidation of n-Heptane for the Production of Hydrogen Rich Gas Mixtures, *International Journal of Hydrogen Energy*, 2013, 38 (26): 11458–11469
 18. Zayed Al-Hamamre, Potential of Utilizing Olive Cake Oil for Biodiesel Manufacturing, *Energy Sources Part A: Recovery Utilization and Environmental Effects*, accepted
 19. Zayed Al-Hamamre, Ali Al-Matar, fawaz sweis, khalid Rawajfeh, Assessment of the Status and Outlook of Biomass Energy in Jordan, *Energy Conversion and Management*, accepted
 20. Zayed Al-Hamamre, Khalid Rawajfeh Investigating the Energy Value of Jojoba as an Alternative Renewable Energy Source, *International Journal of Green Energy*, accepted
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Hobbies

- Reading, Travelling, Playing Chess