Curriculum Vitae

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| s1 | Marwan M. Batiha, Ph.D.  ***Professor of Chemical Engineering***  Department of Chemical Engineering  Al-Hussein Bin Talal University  Ma'an 20, 71111, JORDAN  Phone: +962 3 2179000 Ext: 8511  Mobile: +962 777 333666  +962 798 224499  Email: [mmbatiha@yahoo.com](mailto:mmbatiha@yahoo.com)  [mmbatiha@ahu.edu.jo](mailto:mmbatiha@ahu.edu.jo) |

**BIOGRAPHY:**

Marwan Batiha was born in Assarieh, Jordan, on April 1, 1969. After graduation from Assarieh Secondary school in 1987 he was admitted to Ivanovo State University of Chemistry & Technology (ISUCT), Ivanovo-Russia, where he obtained his Diploma degree with honours in Automation of Chemical Engineering in 1993. He completed his Ph.D. in Chemical Engineering (Reaction Engineering and Process Control) from the above mentioned University in 1997. While being a graduate student he was an instructor at ISUCT where he taught Processes and Apparatuses of Chemical Technology & Automatic Control Theory. In 1998, he joined the Department of Science at Jerash Private University. During his work at Jerash Private University (1998-2007) Dr. Batiha had held different managerial positions (chairman of Science Department, deputy dean of Scientific Research) in addition to teaching different Chemistry courses (e.g. General Chemistry, Inorganic Chemistry, Industrial Chemistry, Environmental Chemistry etc.). In 2006 he was promoted to an associate professor at Jerash University. In September 2007 he joined the Department of Chemical Engineering at Al-Hussein Bin Talal University (AHU) where he was appointed as an associate professor. At AHU he had held the positions of dean of Faculty of Mining and Environmental engineering (from Nov. 2008 to Sep. 2009), Dean Faculty of Engineering (from Sep. 2009 till Sep. 2013). In 2011 he was promoted to a full professor of chemical engineering. In Sep. 2013 he joined the Catalysis and Nanomaterials Laboratory at the Department of Chemical and Biomolecular Engineering at Rice University, Houston, USA as a Fulbright postdoctoral scholar.

Professor Batiha is actively involved in scientific research and development of novel methodologies and techniques in modeling, simulation and optimization of chemical reactions and reactors. He has authored/co-authored over twenty journal articles in the area of absorption and adsorption of sulphur dioxide in aqueous solutions and natural and modified minerals, modeling the fate of organic chemicals in the environment, removal of heavy metals from aqueous solutions & computational kinetics. Prof. Batiha had four funded projects with a total amount of 275,000 USD. The projects were successfully completed as scheduled. Professor Batiha was awarded the Distinguished Scholar Award, the Arab Fund Fellowship program for distinguished researchers, along with Fulbright postdoctoral fellowship. Prof. Batiha was awarded the Prestigious Award for Distinguished Research, Awarded by Scientific Support Fund at the Ministry of Higher Education in Jordan for the publication of the article (Co-Author) titled: "Precipitation treatment of effluent acidic wastewater from phosphate-containing fertilizer industry: characterization of solid and liquid Products" published in Separation and Purification Technology, 08/2014.

Professor Batiha was a team leader who established the Engineering Workshop Directorate at AHU. He is the main responsible of strategic planning and implementation of all engineering faculty activities such as: accreditation activities, annual budget plan, annual development plan, Evaluation of faculty staff performance, Evaluation of new applicants, etc.

**EDUCATIONAL QUALIFICATIONS:**

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| **Diploma** (Bachelor + Master) in Chemical Engineering (Automation of Technological Processing and Industries), Diploma with Honours, Ivanovo Institute of Chemistry and Technology. From Sep. 1988 to June 1993.  *Thesis title*: Dynamic Modelling of Gas-Liquid Reactors in the Chlorination Process of Polyvinylchloride (PVC). |
| **Ph.D.** in Chemical Engineering. Ivanovo State Academy of Chemistry and Technology. From Nov. 1, 1993 to May 30, 1997.  *Thesis title*: Mathematical Modelling and Optimization of Gas-Liquid Reactors (Synthesis Process of Hydroxylaminedisulfate in the Production of Caprolactam)  **Postdoctoral Fellow**, Catalysis and Nanomaterials Laboratory, Department of Chemical and Biomolecular Engineering, George R. Brown School of Engineering, Rice University, Houston, Texas, USA. From Sep. 2013 till Aug. 2014. |
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**PROFESSIONAL EXPERIENCE:**

Academic Rank

Full Professor since 16/09/2011

**Academic Positions**

Sep. 2013- Aug. 2014 Visiting Professor, Department of Chemical and Biomolecular Engineering, George R. Brown School of Engineering, Rice University, Houston, Texas, USA (Sabbatical Leave).

Sep. 2011- present Professor, Department of Chemical Engineering, Faculty of Engineering, Al-Hussein Bin Talal University, Maan, Jordan

Sep. 2007- Sep. 2011 Associate Professor, Department of Chemical Engineering, Faculty of Engineering, Al-Hussein Bin Talal University, Maan, Jordan

May 2006 – Sep. 2007 Associate Professor, Department of Sciences, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan

Oct. 1998 – May 2006 Assistant Professor, Department of Sciences, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan

Feb. 1998– Aug. 1998 Full Time Lecturer, Department of Sciences, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan

Oct. 1995 – April 1997 Teaching and Research Assistant, Department of Technical Cybernetics and Automation, Ivanovo State Academy of Chemistry and Technology, Ivanovo, Russia.

**Administration**

Jan. 2016 till now Chairman of Renewable Energy Research & development Council, Al-Hussein Bin Talal University

Sep. 2009- Sep. 2013 Dean of Faculty of Engineering, Al-Hussein Bin Talal University, Maan, Jordan

Nov. 2008- Sep. 2009 Dean of Faculty of Mining and Environmental Engineering, Al-Hussein Bin Talal University, Maan, Jordan

Sep. 2008- Nov. 2008 Vice Dean of Faculty of Mining and Environmental Engineering, Al-Hussein Bin Talal University, Maan, Jordan

Sep. 2003 – Sep. 2006 Head **of Science Department,** Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan

SCHOLARSHIPS, HONOURS & AWARDS

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| 8 | **Prestigious Award for Distinguished Research, Awarded by Scientific Support Fund at the Ministry of Higher Education** in Jordan for the publication of the article (Co-Author) titled: "Precipitation treatment of effluent acidic wastewater from phosphate-containing fertilizer industry: characterization of solid and liquid Products" published in Separation and Purification Technology, 08/2014. |
| 7 | **Arab Fund Fellowship Award for Distinguished Researchers**, Arab Fund for Economic and Social Development, Kuwait. One year fellowship to conduct research at Catalysis and Nanomaterials Laboratory, Department of Chemical and Biomolecular Engineering at Rice University, Houston, Texas, USA. Sep. 2013- August 2014. |
| 6 | **Fulbright Research Fellowship Award**. Catalysis and Nanomaterials Laboratory, Department of Chemical and Biomolecular Engineering at Rice University, Houston, Texas, USA. Sep. 2013- July 2014. |
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| 5 | **German Research Foundation** (Deutsche Forschungsgemeinschaft, DFG). Muenster University of Applied Sciences, June-Sep. 2010, Muenster, Germany. |
| 4 | **An award for supervising the best graduation project** in the engineering colleges among the Jordanian Universities for the year 2008. This Award was given by the Jordanian Engineering Association. The project was titled: "Effect of Reaction conditions on the production of sodium hexafluorosilicates" by Mohammad Shwaiter, Bassam Makahlah, Ahmad Al-Mahameed and Omar Al-Kasasbah, ***Winner of first place of Jordan Engineering Association competition/Chemical Engineering Section*** |
| 3 | **Diploma with Honours** (Red Diploma), Ivanovo Institute of Chemistry and Technology. |
| 2 | **Ph.D. Scholarship**, Russian Ministry of Higher Education based on the Diploma with Honours. |
| 1 | **B.Sc. Scholarship**, Jordanian Ministry of Higher Education & Scientific Research based on the General Secondary Examination / Scientific Stream. |

CERTEFICATES

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| 2 | International Computer Driving License (ICDL), 2011. |
| 1 | Certificate of methods of teaching Russian language as a foreign language, Ivanovo Institute of Chemistry and Technology. |

**RESEARCH INTERESTS:**

* Modelling, Simulation, Optimization and Control of Chemical Reactions and Reactors
* Absorption and Adsorption of Sulphur Dioxide in Aqueous Solutions and Natural and Modified Minerals.
* Industrial Wastewater Treatment.
* Modelling the Fate of Organic Chemicals in the Environment.
* Removal of Heavy Metals from Aqueous Solutions.
* Computational Kinetics.

**FUNDED PROJECTS:**

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| **Project Title** | **Funding Institution** | **Amount of Fund, JD\*** |
| *An investigation into the removal of SO2 from effluent streams: Novel approach to minimize SO2 emission from Jordanian oil shale processing plants in the future*: **Principal Investigator** | Deanship of scientific research, Al-Hussein Bin Talal University | 24962 |
| SRTD (an EU Funded Programme)/ Higher Council for Science and Technology and EU | 15000 |
| *Treatment of effluent water from phosphate-containing fertilizer industry for reuse and production of useful compounds*-*Phase I:* **Co-investigator** | Scientific Research Support Fund/ Ministry of Higher Education and Scientific Research | 43330 |
| *Treatment of effluent water from phosphate-containing fertilizer industry for reuse and production of useful compounds-Phase II***: Co-investigator** | Scientific Research Support Fund/ Ministry of Higher Education and Scientific Research | 112000 |
| **Total** | | **195292** |

\*(Currency rate: 1 Jordanian Dinar (JD) = 1.384 USD)

**RESEARCH VISITS:**

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| 1 | Faculty of Chemical Engineering, Muenster University of Applied Sciences, Germany.  (June 2010-September 2010) Title “Characterization of Jordanian oil shale, kaolin,  zeolite, and oil shale ash for the removal of SO2 from effluent streams”. |
| 2 | George R. Brown School of Engineering, Rice University, Houston, Texas, USA.  (Sep. 2013- August 2014) Title "Removal of SO2 from effluent streams: Novel approach  to minimize SO2 emission from potential Jordanian oil shale processing plant in the future" |

**PROFESSIONAL ASSOCIATIONS**

Jordan Engineers Association, Chem. Eng. Division, Member, from June 1993 to present.

**TEACHING EXPERIENCE:**

**a)** **Al-Hussein Bin Talal University, Jordan (Sep. 2007- present):**

Teaching courses:Modelling and Simulation of Chemical Processes (8 semesters)

Chemical Reaction Engineering I (6 semesters)

Chemical Reaction Engineering II (5 semesters)

Instrumental Analysis (8 semesters)

Research Methodology (2 semesters)

Process Dynamics & Control (9 semesters)

Heat Transfer (2 semesters)

Thermodynamics I (1semester)

Graduation Projects (I + II)

Chemical Engineering Principles (3 semesters)

Special Topics in Chemical Engineering

Physical Chemistry for Engineers (3 semesters)

Probability and Statistics for Engineers (3 semesters)

**b) Jerash Private University, Jordan (Feb. 1998 – Aug. 2007):**

Teaching courses:General Chemistry 1 & 2 (9 semesters)

Inorganic Chemistry 1 (8 semesters)

Inorganic Chemistry 2 (9 semesters)

Analytical Chemistry (1 semester)

Industrial Inorganic Chemistry (7 semesters)

Introduction to Industrial Chemistry (8 semesters)

General Chemistry Lab 1 & 2 (more than 10 semesters)

Separation Methods of Chemical Compounds (4 semesters)

Environmental Chemistry (4 semesters)

Chemistry and Society (6 semesters)

**c) Ivanovo State University of Chemistry and Technology, Russia (Feb. 1995 – April 1997:**

Teaching courses:Processes and Apparatuses of Chemical Technology (2 semesters)

Automatic Control Theory (4 semesters)

Automatic Control Instrumentations Lab (4 semesters)

**OTHER EXPERIENCE :**

1. Establishment of the Faculty of Engineering at Al Hussein Bin Talal University, Ma'an, Jordan.
2. Establishment of the Engineering Workshop Directorate at Al-Hussein Bin Talal University, Ma'an, Jordan.
3. Succeeding in getting the accreditation of all engineering departments at Al-Hussein Bin Talal University form Higher Education Accreditation Council / Jordan.
4. Establishment of a master program in Renewable Energy and Environmental Engineering.
5. Reviewer for many International Journals such as: Separation and Purification Technology; Journal of Hazardous Materials; Polish Journal of Chemical Technology; Applied Surface Science.

**SKILLS:**

**Experimental Skills**: FT-IR Spectroscopy, UV-Vis Spectrophotometer, Scanning Electron Microscope (SEM), X-ray Fluorescence (XRF), X-ray Diffraction (XRD), Thermogravimetric Analysis (TGA), Atomic Absorption Spectroscopy (AAS), Sulfur Coulometer.

**Computer Skills**: DOS, Windows, Microsoft office (Word, Excel, PowerPoint …etc); Matlab software*;* Berkeley Madonna software, Polymath software.

**LANGUAGES:**

Arabic: Mother Tongue.

English: Reading (excellent), Writing (excellent) and Conversation (v. good).

Russian: Reading (excellent), Writing (excellent) and Conversation (excellent).

**PUBLICATIONS:**

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| --- | --- |
| 33 | Mohammad Al-Harahsheh, Yazan A. Hussain, Habis Al-Zoubi, Marwan Batiha, Esraa Hammouri. Hybrid precipitation-nanofiltration treatment of effluent pond water from phosphoric acid industry. *Desalination*, Volume 406, Pages 86-97, 2017. [DOI: 10.1016/j.desal.2016.06.014](http://dx.doi.org/10.1016/j.desal.2016.06.014) |
| 32 | M. A. Batiha, E. A. Chizhova, M. M. Batiha, L. A. Al-Makhadmeh, S. Rawadieh, M. Alqasaimeh and A. Marashli, Effect of Pyridine and Tribenzylamine on the Hydrolysis Kinetics of Benzoyl Chloride in Water-Dioxane System, Asian Journal of Chemistry, Volume 29 (9), Pages 1888-1890, 2017. [DOI:10.14233/ajchem.2017.20556](https://doi.org/10.14233/ajchem.2017.20556) |
| 31 | M. Al-Harahsheh, M. Batiha, S. Kraishan, H. Al-Zoubi, Precipitation Treatment of Effluent Acidic Wastewater from Phosphate-containing Fertilizer Industry: Characterization of Solid and Liquid Products. *Separation and Purification Technology*, Volume 123, Pages 190-199, 2014. DOI: 10.1016/j.seppur.2013.12.027 |
| 30 | M. Al-Harahsheh, R. Shawabkeh, M. Batiha, A. Al-Harahsheh, K. Al-Zboon, Sulphur Dioxide Removal by Natural Zeolitic Tuff: An Experimental Study. Fuel Processing Technology, Volume 126, Pages 249-258, 2014. DOI: 10.1016/j.fuproc.2014.04.025 |
| 29 | M. A. Batiha, L. A. Al-Makhadmeh, M. M. Batiha, A. Ramadan, A. A. H. Kadhum, Generalization of the MAFRAM Methodology for Semi-Volatile Organic Agro-Chemicals. *Water, Air, & Soil Pollution*, 225:1789, 2013. DOI 10.1007/s11270-013-1789-5 |
| 28 | Awni Al-Otoom, Mohammad Al-Harahsheh, Marwan Batiha, Sintering Behaviour of Jordanian oil shale under the conditions of Fluidized Bed Combustion Systems. *Oil Shale*, Volume 31, No 1, pp. 54-65, 2014. DOI 10.3176/oil.2014.1.06 |
| 27 | M.A. Batiha, Elena Chizhova, M.M. Batiha, Effect of Tertiary Amines on the Hydrolysis Kinetics of Benzoyl Chloride in Water-Dioxane Solutions. Asian Journal of Chemistry, Volume 25, Issue 7, 4087-4090, 2013. DOI:10.14233/j chem. 2013.14238 |
| 26 | M. Al-Harahsheh, Marwan Batiha, Kamil Al-Zboun, Reyad Sawabkeh, Adnan Al-Harahsheh, Khalid Al-Tarawneh, SO2 adsorption onto zeolitic tuff and its thermal regeneration. 32nd Oil Shale Symposium, Colorado School of Mines, Golden, Colorado, USA. October 15-17, 2012. <http://mines.conference-services.net/resources/328/3190/pdf/OSS2012_0065.pdf> |
| 25 | Marwan Batiha, Mohammednoor Altarawneh, Abdullah Alsofi, Mohammed Al-Harahsheh, Ibrahem Altarawneh, Saleh Alrawadieh, Theoretical Study on the Reaction of Hydrogen atoms with Aniline. *Theoretical Chemistry Accounts: Theory, Computation, and Modeling (Theoretica Chimica Acta)*, Volume **129**, Number 6, Pages 823-832, 2011. DOI: 10.1007/s00214-011-0940-x |
| 24 | Marwan Batiha, Mohammednoor Altarawneh, Mohammed Al-Harahsheh, Ibrahem Altarawneh, Saleh Alrawadieh. Theoretical Derivation for Reaction Rate Constants of H abstraction from thiophenol by the H/O Radical Pool. *Computational and Theoretical Chemistry*, Volume **970**, Issues 1-3, Pages 1-5, 2011. DOI: 10.1016/j.comptc.2011.05.015. |
| 23 | M. Batiha, M. Al-Harahsheh A.A. Harahsheh, R. Shawabkeh, K. Tarawneh, Absorption of Sulfur Dioxide by Dead Sea Water. *1st International Conference on Desalination and Environment: A Water Summit*. Abu Dhabi, 29 October - 1 November, 2011. |
| 22 | M. Al-Harahsheh, M. Batiha, S. Kraishan, A. Alrouad, Treatment of Effluent Pond Water from Phosphoric Acid Plant at IJC. *1st International Conference on Desalination and Environment: A Water Summit*. Abu Dhabi, 29 October - 1 November, 2011. |
| 21 | Marwan Batiha, Mohammad Al-Harahsheh, Muhannad Hararah, Khalid Tarawneh, Adnan Al-Harahsheh, Reyad Shawabkeh. Removal of Sulfur Dioxide by Jordanian Zeolitic Ttuff. *31st Oil Shale Symposium.* Colorado, USA, 17-21 October, 2011 |
| **20** | Mohammad Al-Harahsheh, Marwan Batiha, Khalid Al-Tarawneh, Adnan Al-Harahsheh, Reyad Al-Shawabkah, Muhannad Hararah. Options of Sulfur Dioxide Removal Using Oil Shale Waste and Natural Materials: An Experimental Study. *31st Oil Shale Symposium.* Colorado, USA, 17-21 October, 2011 |
| 19 | Marwan M. Batiha, Mohammad Al-Harahsheh, Effect of Reaction Conditions on the Precipitation of Sodium Hexafluorosilicate Produced from Waste Hexafluorosilicic Acid, *Polish Journal of Chemical Technology.* Volume **13**, Issue 2, Pages 23 — 28, (2011). DOI: 10.2478/v10026-011-0019-4 |
| 18 | Marwan M. Batiha, Ala’a H. Al-Muhtaseb, Mohammednoor Altarawneh, Theoretical Study on the Reaction of the Phenoxy Radical with O2, OH and NO2. *International Journal of Quantum Chemistry*, Volume **111**, Issue 10, (2011). DOI: 10.1002/qua.23074 |
| 17 | M. A. Batiha, Abdul Amir H. Kadhum, M. M. Batiha, Mohd S. Takriff, Abu Bakar Mohamad, MAFRAM—A new fate and risk assessment methodology for non-volatile organic chemicals. *Journal of Hazardous Materials*, Volume **181**, Issues 1-3, 15, Pages 1080-1087, (2010). DOI: 10.1016/j.jhazmat.2010.05.125 |
| 16 | Al-Harahsheh, A, Shawabkeh, R., Al-Harahsheh, M., Batiha, M., Removal of sulfur dioxide by a Slurry of Jordanian Oil Shale Ash. *Energy Sources*, *Part A: Recovery, Utilization, and Environmental Effects*, Volume **34**, Issue 1, Pages 90-98, (2011). DOI: 10.1080/15567030903567675 |
| 15 | Al-Harahsheh, M, Shawabkah, R., Al-Harahsheh, A Al-Tarawneh, K. and Batiha, M., Surface Modification and Characterization of Jordanian Kaolinite: Application for Lead Removal from Aqueous Solutions. *Applied Surface Science*, **255**, 8098-8103, (2009). DOI: 10.1016/j.apsusc.2009.05.024 |
| 14 | M. A. Batiha; A.A. H Kadhum; A.B. Mohamad; M. S Takriff; Z. Fisal; W.R. W Daud; M. M. Batiha, Modeling the Fate and Transport of Non-volatile Organic Chemicals in the Agro-ecosystem: A case Study of Cameron Highlands, Malaysia, *Process Safety and Environmental Protection*, **87**, 121-134, (2009). DOI: 10.1016/j.psep.2008.09.001 |
| 13 | M. A. Batiha, Abdul Amir H. Kadhum, Abu Bakar Mohamad, Mohd S. Takriff, Zahedi Fisal, Wan Ramli W. Daud and M. M. Batiha, MAM – An Aquivalence-based Dynamic Mass Balance Model for the Fate of Non-Volatile Organic Chemicals in the Agricultural Environment, *American Journal of Engineering and Applied Sciences*, **1**(4): 252-259, (2008). DOI: 10.3844/ajeassp.2008.252.259 |
| 12 | M.A. Batiha, A.A.H. Kadhum, Z. Fisal, A.B. Mohamad, W.R. Wan Daud, M.S. Takriff, M. M. Batiha, The Fate of Non-Volatile Organic Chemicals in The Agriculture Environment, *American Journal of Applied Sciences*, **2** (7) 456-467, (2007). DOI: 10.3844/ajassp.2007.456.464 |
| 11 | Daradka H. M., Marwan M. Batiha , Antiandrogenic Activity of *Ruta graveolens* L in Female Albino Rats, *Asian Journal of Chemistry*, **18** (3) 2280-2284 (2006). |
| 10 | Marwan M. Batiha, El-Khateeb F.H., Temperature Dependence of Henry’s Law Constant of Chlorine and Hydrogen Chloride in Polychlorinated Ethane Solvents, *J. Saudi Chem. Soc.,****10*** *(2) 415-420* (2006). |
| 9 | Marwan M. Batiha, Dynamic Modelling of the Non-Catalytic Process of Ethylene Oxide Hydrolysis*, Journal of Science & Technology ISSN 1607-2073*, **9** (1&2) (2004). |
| 8 | Marwan M. Batiha, Mathematical Modelling and Optimization of a Radical Chlorination Process of 1,2-Dichloroethane, International Conference on Chemistry and Industry, Riyadh, Saudi Arabia, Dec. 11-15/2004. |
| 7 | Marwan M. Batiha, Kinetic Investigation of Consecutive-Parallel Reactions in the Non-Catalytic Process of Ethylene Oxide Hydrolysis, *Journal of King Abdulaziz University: Engineering Sciences,* **15** (1) 19-31 (2004). |
| 6 | Marwan M. Batiha, Optimization of the Radical Chlorination Process of 1,2-Dichloroethane, *Jerash for Research & Studies,* ***7*** *(2) 15-23 (2003)* |
| 5 | Marwan M. Batiha, Modelling and Simulation of a Radical Chlorination Process of 1, 2-Dichloroethane, *Damascus University Journal for Basic Sciences*, **19** (2) 36 – 47 (2003). |
| 4 | E.A. Chizhova, N.S. Ivanova, Andaki Lengungi, Marwan M. Batiha. Catalytic Effect of Coordinating Solvents on the Acylation Reaction Kinetics of Aniline with μ Carbonic Acid Monochloroanhydride in toluene. *Chemistry and Chemical Technology Research-Engineering Journal*, ISSN 0579-2991, **41** (3) 34-36 (1998). |
| 3 | Labutin A.N., Marwan M. Batiha, Groshev G.I. & Korateevskiy K.N., Kinetics of the Dissolution Process of Sulfur Dioxide in Water*, Chemistry and Chemical Technology Research-Engineering Journal*, ISSN 0579-2991, **40** (1) 55-58 (1997) |
| 2 | Marwan M. Batiha, Labutin A.N., Pozdniakov A.B. Mathematical Modelling and Control of Gas-Liquid Reactors, *The International Conference "Mathematical Methods in Chemistry &Chemical Technology".* Tver, Russia, May 12-14, 1996 |
| 1 | Marwan M. Batiha, Labutin A.N., Reactor Unit Study of Hydroxylaminedisulfonate synthesis. *IV International Conference "Cybernetical Methods in Chemical Technology".* Moscow, Russia, October, 21-23, 1994. |

CONFERENCES

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| 12 | The 32th Oil Shale Symposium, Colorado School of Mines, Golden, Colorado USA. October 15-17, 2012. |
| 11 | 1st International Conference on Desalination and Environment: A Water Summit, Abu Dhabi, UAE, 29 October 2011 - 01 November 2011. |
| 10 | The 30th Oil Shale Symposium, Colorado School of Mines, Golden, Colorado USA. October 18-22, 2010. |
| 9 | The XIII International Scientific Conference "High Tech in Chemical Technology", Suzdal, Russia, 29 June – 2 July 2010. |
| 8 | The Second International Chemical Engineering Conference (CHEC 2010); University of Jordan, Amman, Jordan, October 11-13, 2010. |
| 7 | The Euro-Jordanian Renewable Energy Conference (EJREC), Amman, Jordan, April, 1-2, 2009. |
| 6 | The International Conference on Modeling & Simulation, Petra, Jordan, 18-20, November 2008. |
| 5 | The Second Regional Conference on Environmental Modeling, Malaysia, August, 28-30, 2007 |
| 4 | The Second International Conference on Environment, Qena, Egypt, March, 28-30, 2006. |
| 3 | The International Conference on Chemistry and Industry, Riyadh, Saudi Arabia, Dec. 11-15/2004. |
| 2 | The International Conference "Mathematical Methods in Chemistry &Chemical Technology". Tver, Russia, May 12-14, 1996 |
| 1 | IV International Conference "Cybernetical Methods in Chemical Technology". Moscow, Russia, October, 21-23, 1994. |

MEMBERSHIP OF COMMITTEES

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| 30 | Chairman of Renewable Energy Research & development Council, Al-Hussein Bin Talal University (Since January 2016 till now) |
| 29 | Committee member of Engineering, Nanotechnology and Supercomputer sector, Scientific Research Support Fund, Ministry of Higher Education and Scientific Research, Jordan (Since May, 2012 – till May 2013) |
| 28 | Member of Teaching Staff Appeal Disciplinary Council / Al-Hussein Bin Talal University. (Since September, 2011 – till Sep 2013). |
| 27 | Quality assurance and accreditation Committee Chairman at the Faculty of Engineering / Al-Hussein Bin Talal University (Since Sep. 2008 till Sep. 2013) |
| 26 | Member of Assignment & Promotion Committee, Al-Hussein Bin Talal University (Since September 2010 till Sep. 2013) |
| 25 | Member of Dean Council / Al-Hussein Bin Talal University ( Since 16/11/2008 till Sep. 2013) |
| 24 | Member of University Council / Al-Hussein Bin Talal University ( Since 16/11/2008 till Sep. 2013) |
| 23 | Renewable Energy Research & development Council Member Al-Hussein Bin Talal University (Since September 2010 till Sep. 2013) |
| 22 | Teaching Staff Developing Council Member, Al-Hussein Bin Talal University (Since September 2010 Sep. 2013) |
| 21 | Member of Student Final Appeal Committee, Al-Hussein Bin Talal University (Since September 2009 Sep. 2013) |
| 20 | Equipment Specification Committee Chairman, Faculty of Engineering, Al-Hussein Bin Talal University. |
| 19 | Faculty Accreditation Preparation Committee Chairman, Faculty of Engineering, Al-Hussein Bin Talal University. |
| 18 | Member, Scholarship Committee, Al-Hussein Bin Talal University ( Since 16/11/2008 till September 2010) |
| 17 | Member of Organizing Committee of the 2nd International Chemical Engineering Conference (CHEC 2010); University of Jordan, Amman, Jordan, October 11-13 , 2010. |
| 16 | Member of Faculty Council / Faculty of Mining and Environmental Engineering/ Al-Hussein Bin Talal University ( Since 15/09/2008 till Sep. 2013) |
| 15 | Member of Organizing Committee of International Conference on Modeling & Simulation, (MS’08 Jordan), Petra, Jordan, 18-20 November 2008. |
| 14 | Head of the Publications Committee of the International Conference on Modeling & Simulation, (MS’08 Jordan), Petra, Jordan, 18-20 November, 2008. |
| 13 | External Examiner of Master Thesis (student: Reem Sulaiman Marji) at Jordan University of Science and Technology (2004). |
| 12 | Member of Scientific Committee of Seventh Jordanian Chemistry Conference – Chemistry Department – AL al-Bayt University – 1/3/2007. |
| 11 | Member of Scientific Committee of Second Jordanian Chemistry Conference for Master and Bachelor Students– Chemistry Department – Jordan University of Science and Technology – 9/5/2007. |
| 10 | Member of Teacher’s Promotion Committee of Jerash Educational Directorate (Since 14/08/2003 till 18/09/2007) |
| 9 | Member of the Organizing Committee of the Pesticides and Contemporary Life Workshop held at Jerash University, 26/4/2004. |
| 8 | Member of committee of studying plan / Jerash Private University. (Since September 18, 2003 – till Sept.17.2006). |
| 7 | Member of Teaching Staff Appeal Disciplinary Council / Jerash Private University. (Since October 18, 2003 – till Sept.17.2006). |
| 6 | Member of disciplinary council of students/ Jerash Private University. (Since October 19, 2004 – till 13/09/2007). |
| 5 | Member, Academic Research Committee, Al-Hussein Bin Talal University ( Since 16/11/2008 till now) |
| 4 | Coordinator between Higher Council of Science & Technology and Jerash Private University (Since 28/3/2007 To 30/09/2007) |
| 3 | Member of Faculty Council / Faculty of Agriculture & Science/ Jerash Private University ( Since 01/10/2002 till 13/09/2007) |
| 2 | Chief of Committee for Studying Plan / Faculty of Agriculture & Science / Jerash Private University (Since October 01, 2000 to September 30, 2001) |
| 1 | Member of University Council / Jerash Private University (Since 01/10/1998 To 30/09/1999) |

**REFEREES:**

1. Prof. Dr. Taha Al-Khamis, Department of Chemical Engineering, Faculty of Engineering, Mutah University, Al-Karak, Jordan. E-mail: [talkhamis2000@hotmail.com](mailto:talkhamis2000@hotmail.com)
2. Prof. Dr. George Hirasaki, Department of Chemical and Biomolecular Engineering, Rice University, Houston, Texas, USA. E-mail: [gjh@rice.edu](mailto:gjh@rice.edu)
3. Prof. Dr. Konstantinos Kostarelos, Petroleum Engineering Department, University of Houston, Houston, Texas, USA. E-mail: [kkostarelos@uh.edu](mailto:kkostarelos%40uh.edu)
4. Prof. Dr. Norbert Ebeling, Vice Dean of Faculty of Chemical Engineering, Muenster University of Applied Sciences, Steifurt, Germany. E-mail: [ebeling@fh-muenster.de](mailto:ebeling@fh-muenster.de)
5. Prof. Dr. Abdulrahman Tamimi, Department of Chemical Engineering, Jordan University of Science and Technology, Irbid, Jordan. E-mail: [tamimi@just.edu.jo](mailto:tamimi@just.edu.jo)