

CURRICULUM VITAE

Prof. A.A. Al-Haddad

A. PERSONAL DATA:

Full Name : AMEER ALI AL-HADDAD

Nationality : Kuwaiti

Address : Department of Chemical Engineering
College of Engineering & Petroleum
Kuwait University, P.O. Box 5969,
13060 Safat, Kuwait.

B. ACADEMIC QUALIFICATIONS:

Degrees Held:

Bachelor of Science	1977	Stevens Inst. of Technology
Master of Science	1980	Georgia Inst. of Technology
Doctorate of Engg.	1983	Cleveland State University

C. LANGUAGES : Arabic & English

D.I PROFESSIONAL EXPERIENCE:

<u>Date</u>	<u>Position</u>	<u>Employer</u>
2012	Editor in Chief	Journal of Engineering Research, Kuwait
1997-to date	Professor	Chemical Engineering Dept., Kuwait University, Kuwait.
1999	Member	Chemical Mask Evaluation Committee, Civil Defence, Ministry of Defence, Kuwait.
1995-1996	Consultant	Chemical Warfare Administration, Ministry of Defence, Kuwait.
1989-1997 1983-1989 1978-1983	Assoc. Professor Assist. Professor Lecturer	College of Engineering & Petroleum Kuwait University
Sept. 1984- Sept. 1986	Vice Dean for Administrative Affairs	College of Engineering Kuwait University
1992-1993	Researcher (part time)	KISR
1984-1985	Researcher (part time)	KISR
1977-1979	Engineer	Ministry of Elect. & Water, Kuwait.
1978-1979	Research Engineer (part time)	KISR

D. II COURSES TAUGHT.:

Master's Level :

- Advanced Mass Transfer
- Advanced Heat Transfer
- Advanced Transport Phenomena

Undergraduate Level:

- Basic Principles in Chemical Engineering I
- Basic Principles in chemical Engineering II
- Heat Transfer
- Mass Transfer
- Transport Phenomena
- Chemical Thermodynamics
- Chemical Reactor Design
- Chemical Engineering Plant Design
- Fortran For Engineers

E. PUBLICATIONS

Journal Papers

1. M.S.E. Abdo, G. Al-Enezi and **A.A. Al-Haddad**,
"An Investigation of the Anodic Oxidation of Ethyl Alcohol",
J. of Environmental Science and Health, LA, U.S.A., Vol. 21, No. 6, pp 487-498 (1986).
2. A.S. Said and **A.A. Al-Haddad**,
"Curve Fitting in Science and Technology II - Application to relative volatility, bubble point and dew point of ideal binary mixtures",
J. of Separation Science and Technology, Vol. 22, No. 4, pp 1199-1218 (1987).
3. M.F. Hamoda and **A.A. Al-Haddad**,
"Treatment of Phenolic Wastes in an Aerated Submerged Fixed-Film (ASFF) Bioreactor",
J. of Biotechnology 5, pp 279-292 (1987).
4. M.F. Hamoda and **A.A. Al-Haddad**,
"Investigation of Petroleum Refinery Effluent Treatment in an Aerobic Fixed-Film Biological System",
J. of IWEM (Institute of Water and Environmental Management), Vol. 1, No. 2, pp 239-246 (1987).
5. G. Aly, **A.A. Al-Haddad** and M. Abdel-Jawad,
"Parametric Study on Falling-Film Seawater Desalination",
Desalination, Vol. 65, 43-55 (1987).
6. **A.A. Al-Haddad** and N.I. Albinally,
"Prediction of Heat Transfer Coefficient in Pulsating Flows",
J. of Fluid Flow Heat Transfer, Vol. 10, No. 2, pp 131-133 (1989).
7. **Al-Haddad**, A.A., Zeidan, M.O., Hamoda, M.F.,
"Nitrification in the Aerated Submerged Fixed-Film (ASFF) Bioreactor",
J. of Biotechnology, V. 18 : 115-128 (1991).
8. **A.A. Al-Haddad**,
"Treatment of Mixed Inhibitory/Non-Inhibitory Substrates in Aerated Submerged Fixed Film Reactors",
J. of Biotechnology, V. 20 (1), p. 65-72 (Aug. 1991).

9. **A.A. Al-Haddad**,
"Modeling of Mixed Inhibitory/Non-Inhibitory Substrates in Aerated Submerged Fixed Film Reactor (ASFF)",
J. of Environmental Science and Health, Vol. 27, No. 8, pp 2075-2094 (1992).
10. Sabah A. Abdul-Wahab*, **A.A. Al-Haddad** and M.S.E. Abdo,
"Direct Determination of Molecular Hydrogen Sulfide in Sewage Effluents"
J. of Air Waste Management Association, V. 40, No. 10, p. 1410-1411 (1994).
11. **A. A. Al-Haddad** , E. Enaya and M.A. Fahim,
"Performance of a Thermodynamic Water Pump",
J. of Applied Thermal Engineering, Vol. 16, No. 1 (1995).
12. **A.A. Al-Haddad**, M. Salman and F. Al-Yahya,
"Factors Affecting the Rate of Evaporation of the Oil Spilled on Land During the Gulf War"
J. of Environmental Technology , Vol. 16, pp 559-568 (1995).
13. Ettouney, H.M., **Al-Haddad, A.A.** and Abu-Irhayem, T.M.
"Mass Transfer Resistance in ASFF Reactors",
J. of Environmental Pollution, Vol. 91, No. 2, pp. 187-197 (1996).
14. **A.A. Al-Haddad**, H.M. Ettouney and T.M. Abu-Irhayem,
"Modeling of Degradation of Solutions Containing Nitrogen and Carbon Compounds in Aerated Submerged Fixed-Film (ASFF) Bioreactors",
J. of Environmental Technology, Vol. 17, pp 113-124 (1996).
15. Hisham El-Dessouky, **Amir Al-Haddad** and Faisal Al-Juwayhel,
"Thermal and Hydraulic Performance of a Modified Two Stage Evaporative Cooler",
Renewable Energy, Vol. 7, No. 2, pp. 165-176 (1996).
16. A.R. Khan, I.R. Al-Waheab and **A. Al-Haddad**,
"A Generalized Equation for Adsorption Isotherms for Multi-Component Organic Pollutants in Dilute Aqueous Solution"
J. of Environmental Technology , 17, 13-23 (1996).
17. **Amir A. Al-Haddad**,
"H₂S Pollution : A Gulf War Problem. Prediction of Henry's Constant for H₂S under Simple Experimental Condition",
Intern. Journal of Environmental Studies , Vol. 50, pp. 213-222 (1996).
18. M.F. Hamoda, M .O. Zeidan and **A.A. Al-Haddad**
"Biological Nitrification Kinetics in a Fixed-Film Reactor"
Bioresource Technology, 58, 41-48 (1996).
19. Al-Juwayhel, **Al-Haddad**, H.I. Shaban and El-Dessouky
"Experimental Investigation of the Performance of Two Stage Evaporative Coolers",
J. of Heat Transfer Engineering, 18, 21-33 (1996).
20. A.R. Khan, R. Ataullah and **A. Al-Haddad**
"Equilibrium Adsorption Studies for Some Aromatic Pollutants from Dilute Aqueous Solutions on Activated Carbon at Different Temperatures"
J. of Colloid and Interface Science , 194, 154-165 (1997).
21. **Amir Al-Haddad**, Johnson Mathew
"Chemical Kinetics of a Two Component Phase Segregated System. A Simple Rate Model"
Reactive and Functional Polymers , 32 83-91 (1997).
22. A.R. Khan, Al-Bahri and **Al-Haddad**,

- "Adsorption of Phenol based Organic Pollutants on Activated Carbon from Multi-component Dilute Aqueous Solutions"
Journal of Water Research, 31, 2102-2112 (1997).
23. Hisham El-Dessouky, **Amir Al-Haddad** and Faisal Al-Juwayhel,
"A Modified Analysis of Counter Flow Wet Cooling Towers",
Trans. of ASME, J. of Heat Transfer , 119, 617-626 (1997)..
 24. **Amir Al- Al-Haddad**, A., Mathew, J., Elkamel, A., El-Nagdi, M.
"Homopolymerization of 4-propyloxybenzoic Acid : A Kinetic Study"
J. of Applied Polymer Science, 72, 467-476 (1999).
 25. A.R. Khan, R. Attaullah and **A. Al-Haddad**,
"Equilibrium Gaseous Adsorption at Different Temperatures"
J. of Environmental Engg. ASCE, 125 (6), 548 – 555 (1999).
 26. **Amir Al-Haddad** and Johnson Mathew,
"Estimation of Inorganic and Organic Pollutants in Kuwait Ground Waters Used in Irrigation :
A Study after the Gulf War",
J. of Environmental Studies, 57, 149-156 (2000).
 27. **Amir Al-Haddad**, Johnson Mathew and Hessa Al-Kendari,
"Copolyesterification between poly (butylenes terephthalate), terephthalic acid and hydro-
quinone diacetate : a kinetic analysis" ,
European Polymer Journal 38, 265-272 (2002).
 28. **Amir Al-Haddad**
" Chemical Warfare is the Least Dangerous War ! "
Kuwait Medical Journal, 35 (1) : 36-37 (2003).
 29. Johnson Mathew, Nader Al-Otaibi and A.R. Khan, **Amir Al-Haddad**
"Study of Chemical Kinetics of Poly (butylene terephthalate) Based Copolyesters",
Kuwait Journal of Science and Engineering, 30(2) (2003).
 30. Ebrahim Behbehani, Lars Andersson, **Amir Al-haddad**
"A Survey Of Dental Local Anesthesia Routines And Experience Of Fractured Needles"
Dental News ,Operative Dentistry, Volume XIII, Number I, 2006, pp13-22
 31. **Amir A Alhadad**
"Simulating the spread of Chemical Warfare Agents "
Research Journal of Chemistry and Environment ,vol.10(3) Sept.2006, PP 27-31
 32. Ebrahim Behbehani, **Amir A l-haddad**
"Effect Of Length And Gauge on Performance Of Dental Anesthesia Needles: A Strain Study
J of Dental ,vol XIII,numberIII, PP14-20, November 2006
 33. S.M. Al-Salem, **A.A. Al-Haddad** and A.R. Khan
"Primary Pollutants Monitoring and Modeling Using Chemical Mass Balance (CMB) around
Fahaheel Residential Area", *American Journal of Environmental Sciences*, Special issue on air
modeling, prevention and control, ISSN: 1553345X, 2007.
 34. Amira Mohamed Wahaba Abdelrasoul, **Amir Al-Hadad**, and Abdul Rehman Khan
"Oil Refineries Emissions Impact on Urban Localities Using AERMOD"
American Journal of Environmental Sciences 6(6): 505-515, 2010.
 35. **Amir Al-Haddad**, Hisham Ettouney and Samiya Saqer
"Analysis of Air Pollution Emission Patterns in the vicinity of Oil Refineries in Kuwait" *journal
of engineering research* vol.3 no.1 pp1-24

Books & Journal Editing

1. "Chemical Warfare (A-Z), class notes for ChE 484
2. Guest editor of special issue j. Petroleum Science & Engineering, vol.55, Jan.2007
3. Co-editor Research J. of Chemistry and Environment
4. "Series of Arabic Book (9) in Non-Engineering Subject"
Published by AL DHABI Press, (96-2011).

Conference Papers

1. **A.A. Al-Haddad** and G.A. Coulman,
"Experimental and Theoretical Study of Heat Transfer in Pulse-Combustion Heaters",
Proceedings of Symposium on Pulse-Combustion Applications, Vol. 1, pp 5-15, Atlanta, Georgia, March 2-3 (1982).
2. G.A. Coulman, P. Vishwanath, **A. Al-Haddad** and P.N. Bartram,
"Experimental Evaluation of a Pulse-Combustion Computer Simulation",
Proceedings of Symposium on Pulse-Combustion Applications, Vol. 1, pp 6.1, 6-15, Atlanta, Georgia, March 2-3, 1982.
3. M.S.E. Abdo and **A.A. Al-Haddad**,
"A Preliminary Study on a Rechargeable New Battery System",
Proceedings of Seventh International Miami Conf. for Alternative Energy Sources, Miami, Florida, pp 604-609, Dec. 1985.
4. **A.A. Al-Haddad** and M.S.E. Abdo,
"A New Technique for the Removal of Ammonia from Wastewaters by Anodic Oxidation",
World Congress of Chemical Engg., Tokyo, Japan, Vol. III, 13b-155, 604-607, Sept. 1986.
5. **A.A. Al-Haddad** and M.S.E. Abdo,
"Coagulation and Ozonation of Sewage Effluent in Kuwait",
9th European Conference on Environmental Pollution, May 1988, Hilton, Corfu, Greece.
6. **A.A. Al-Haddad**,
"Evaluation of Aerated Submerged Fixed Film (ASFF) Reactor with Non-Toxic/Toxic Organic Substrate",
VIIth IWRA World Congress on Water Resources, May 13-18, 1991, Morocco.
7. **A.A. Al-Haddad**, Hessa Al-Kandiri
"Performance of 'Home-Made' Filters for Chemical Warfare Agents",
The Fifth International Symposium on Protection Against Chemical & Biological Warfare Agents, Stockholm, Sweden, June 11-16, 1995.
8. **A.A. Al-Haddad**
"Chemical kinetics of a two component phase segregated system. A simple rate model",
International Symposium *DYNAMICS OF SURFACES AND REACTION KINETICS IN HETEROGENOUS CATALYSIS* , Antwerpen (Belgium), September 15-17, 1997.
9. **Amir Al-Haddad** and Johnson Mathew
"Kinetics of copolyesters of poly (butylene terephthalate), hydroquinone diacetate and terephthalic acid : A simple rate model for catalysed synthesis in melt",
3rd International Symposium *REACTION KINETICS AND THE DEVELOPMENT AND OPERATION OF CATALYTIC PROCESSES* , Oostende (Belgium), April 22-25, 2001.
10. **A. Al-Haddad**, J. Mathew, A. Khan & N. Otaibi
"Homopolyesterification between Isophthalic acid and hydroquinone diacetate: A Kinetic Analysis",
IASTED (MS 2003), 24 Feb., 2003, Palm Springs, CA, USA.

11. E. Behbehani, L. Anderson, **A. Al-Haddad**
 "Needle Fracture during Local Anasthesia"
 International Conference on Oral Health in Eastern Mediterranean and African Region,
 Kuwait, 2-4 Dec. **2003**.
12. **A. Al-Haddad**, Y.I. Ali and F.H. Al-Refae
 "Optimization of Tri-Ethylene Glycol Consumption in KOC Dehydration Tower",
 ISAHOF Conference, Oaxaca, Mexico, April 18-22, **2004**.
13. **A. AL-Haddad**
 "Simulating the Spread of Chemical Warfare Agents", 16th IASTED conference modeling and
 Simulation, proceedings pp257-261
 Cancun, Mexico, **May 2005**.
14. **Amir A Alhadad**
 "Fate of Chemical Warfare agents in The Environment "
 Proceedings of the 2nd International Congress of Chemistry and Environment..
 ICCE2005 24-26 Dec **2005** pp 257-264, Indore , India.
15. Sultan M. Al-Salem and **Amir A Al-Haddad**
 "Pollutants Monitoring And Source Determining: Effect of Oil Refineries on a Residential Area"
 proceedings 2nd IC-SCCE second international conference "from scientific computing to
 computational engineering" Athens ,Greece 5-8 July,**2006**
17. **Amir A Alhadad**, Yusuf I Ali and Sultan M Al-Salem
 Simulating the Spread of Chemical Warfare Agents Using ArcView Software
 Proceedings **2006** Esri International User Conference, San Diego August 5-8,USA
18. Sultan M. AL-Salem, **Amir A. AL-Haddad** and A. Khan
 Methane dispersion modeling and source determining around urban areas in Kuwait
 Proceedings" Green Industries international conference and exhibition", 20-22 Nov **2006**
 Bahrain.
19. **Amir A. Alhadad**, Hisham M. Ettouney
 Parametric Study on a dehydration process of natural gas in Kuwait
 proceedings, 5th international conference on Fluid and thermal energy conversion FTEC **2006**,
 Jakarta Dec 10- 14,2006, Indonesia.
20. Sultan M.Al-Salem,**Amir A.Al-Haddad** and Abdul Rehman Khan
 Chemical Processes Affect on Ambient Air Quality:Modeling and Primary/Secondary
 Air Pollution Conference 2007-proceedings PP281-290
 Algrave, Portugal, 23-25 April 2007.
21. A. Khan, A. **Al-Haddad** and S. Al-Salem
 Seasonal Variation Effect on Airborne Pollutants Studied in an Urban Area in the State of
 Kuwait, In the Proceedings of the 3rd Congress of Chemistry and Environment, 18th-20th
 November 2007, Kuwait City, The State of Kuwait, 2007.
22. **A. Al-Haddad** and S. Al-Salem,
 Application of Zeolite in Oil Refineries Wastewater Treatment, Proceedings of the 7th
International Conference on the Occurrence, Properties and Utilization of Natural Zeolite (Zeolite06),
 Edited by: S. Bowman and Susan E. Delap, Pp: 45; New Mexico, US, 16th – 21st July, 2006.
23. **Amir Al-Haddad**, Hisham Ettouney and Samiya Saqer
 Daily and Seasonal Changes in Air Pollution in Kuwait. (ICSEEE 2012): International
 Conference on Sustainable Energy and Environmental Engineering. Abudhabi, U.A.E., Jan. 29-
 31, 2012.

24. **Amir Al-Haddad**, Hisham Ettouney and Samiya Saqer
Oil Refineries Emissions: Source and Impact. A study using AERMOD. (ICEWE 2012): International Conference on Energy, Water and Environment Penang, Malaysia, Feb. 19-21, 2012.

F. FUNDED PROJECTS:

1. Heat Transfer in Pulsatile Flows, (P.I.)
EC017 Funded by Research Management Unit of Kuwait University, (KD 18,000) for 3 years (Jan. 85 - Jan. 88).
2. Application of Fixed Film Bioreactors for Aerobic and Anaerobic Treatment of Hazardous Organic Wastes.
Co-Investigator with Dr. M.F. Hamoda.
EPC 002 Funded by Environmental Protection Council (KD 40,000) for 36 months (Jan. 84 - Dec. 86).
3. Lifting of Water by a Thermodynamic Pump.
Co-Investigator with Dr. M.A. Fahim.
EC 032 Funded by Research Management Unit of Kuwait University, (KD 8,000) for 18 months.
4. Oil lake evaporation.
EDC 100. Funded by Research Management Unit of Kuwait University, (KD 2000).
5. High Temperature Mesomorphic Polyester, Synthesis and Kinetic Analysis (I),
EC-068, Duration: 24 months, Starting date: 01/01/1996, Total Budget : KD. 6,000.
6. Thermochemical Behavior of Different Modified Asphalts,
EC-065, Duration 24 months, Starting date: 01/12/1995, Total Budget : KD 5,300.
7. Main Chain Thermotropic Copolyesters : Synthesis and Kinetic Analysis,
EC-082, Duration 24 months, Starting date: 01/06/1997, Budget: KD 6000.
8. Computer Simulation to Predict the Spread of Chemical Warfare Agents in Kuwait,
Kuwait University Research Administration EC01/03, Budget 9850, duration 24 months starting 2/1/2004.
9. Optimization of Tri-Ethylene Glycol Consumption in Gas Dehydration Towers in Kuwait. EC-03/03, Duration 24 months, Starting date: 01/003/2005, Budget: KD 20,250.
10. Consultation Service for KOC number IFP-04/05, duration 100 days.
11. Study Of Oil Refineries Emission and Impacts Using AERMOD, submitted to RA, 2009-04-04.
12. "Oil Refineries Emissions: Source and Impact: A Study using AERMOD"
Kuwait University Research Administration EC 05/09, Duration: 24 months, Budget: 19,150 KD. Starting date 02-05-2010.
13. "Measurements and Analysis of PM10 and PM2.5 in Residential and Industrial Areas in Kuwait".
Kuwait University Research Administration EC 03/11, Duration 24 months, Budget: 30,223 KD Starting date 1-3-2012.

G. COMMITTEES:

University : -Scientific Publications Council
 - Chairman University Grievances committee.
 - Chairman of the organizing committee of the 3rd conference
 Of the International Congress of Chemistry an environment
 ICCE07 (18-20 nov.2007).
 - Member of Strategic Planning Committee.

Department : - Graduate Studies
 - Student Affairs
 - Equipment
 - Library
 - Scholarship

H. SECONDMEND:

1. Kuwait Institute for Scientific Research (Single Cell Protein) (1988 - 1989)
2. Ministry of Defense (Chemical Protection Against Warfare) (1991 - 1992)
3. Kuwait Institute for Scientific Research (Sand Pollution -
 Post War Analysis) (1991 - 1993)

I. MASTERS THESIS SUPERVISION

- 1) "Modelling of a Thermodynamic Water Pump"
 Enaya, Enayat As'ad, 1982.
- 2) "Evaluation of Henry's Constant for H₂S in Water and Sewage Effluents"
 Abdel-Wahab, Sabah Ahmed, 1987.
- 3) "Heat Transfer Correlation for Pulsating Flows"
 Al-Binali, Nourah Ebrahim, 1988.
- 4) "Evaluation of Aerated Submerged Fixed Film (ASFF) Reactor with Nontoxic/Toxic
 Organic Substrates"
 Atallah, Violet Nagi, 1989.
- 5) "Mass Transfer Effects in Treatment of Wastewater in Aerated Submerged Fixed Film
 Reactors".
 Abu-Rehym, T.,1990.
- 6) "Adsorption Mechanism for Multicomponents Organic Pollutants in Kuwait"
 Iqbal Al-Whiab, 1993.
- 7) "Single and Bisolute Adsorption of Phenol and Phenol Base Organic Pollutants in
 Dilute Aqueous Solution on Activated Carbon" Tariq Al-Bahari, 1994.
- 8) "Modeling of Chemical Warfare Agents Dispersion"
 Hessa Al-Kandari, 2000.

- 9) "Polymerization Kinetics of Novel Copolyesters"
Nader Al-Otaibi, October 2002.
- 10) "Chemical Warfare Danger and Modelling in Kuwait"
B. Al-gallaf, September 2003.
- 11) "Management of Production Line From Oil Refineries"
Ammar H. Hussien, Dec 2003.
- 12) "Methane Dispersion Modeling and Source determining Around Certain Areas in The State of Kuwait". Sultan S. AlSalem, May 2007.
- 13) "Emissions VOC Impact on Urban Localities in Vicinity of Oil Refineries"
Amira M. Wahaba, Dec.2007.
- 14) "Daily and Seasonal Changes in Air Pollution Patterns in Kuwait"
Samiya Saeed Sagqer, April, 2011.
- 15) "Indoor Air Quality in Fiberglass Industry"
Badriya Salah Al-Abdulmohsen, December, 2011.

J. SHORT COURSES:

Developed and participated in many short courses offered by the department of Chemical Engineering; Some of these are:

- 1) "Shell and Tube Heat Exchangers: Design and Selection" (12-16 Nov. 1994).
- 2) "Fluid Flow and Heat Transfer in Process and Power Generation Equipments" (4-8 June, 1995).
- 3) "Heat Exchangers Networking in Chemical Plants" (2-6 Dec. 1995).
- 4) "Steam Ejectors, Design and Trouble Shooting" (3-7 Jan. 1996).
- 5) "Fouling in Heat Exchangers" (1-3 June 1996).

K. OTHER ACTIVITIES:

- * Participated in the committee to prepare for a TV program about the University.
- * Developed the computer course (FORTRAN) for students of the College of Engineering.
- * Participated in a committee to coordinate activities with the Ministry of Defense.
- * Developed Chemical Protection Warfare Laboratory.
- * Developed Polymer - Chemical - Reaction Engineering Laboratory.