Diyala University

Chemical Engineering Department, Baqubah, Iraq

CURRICULUM VITE (CV)

1. Personal Particulars:

Name	Asst. Prof. Dr. Ahmed Daham Wiheeb
Date of birth	24. March. 1976
Marital Status:	Married
Spoken Languages	Arabic and English
Address	Chemical Engineering Department, Diyala University, Baqubah, Iraq
E-mail	ahmed_chem76@yahoo.com ahmed_daham@tu.edu.iq drahmedch@tj-es.com
Telephone	+9647721993645

2. A. Academic and Professional Qualifications:

Year	Degree	Discipline	University
1999	BSc.	Chemical Engineering	Baghdad University, Iraq.
2002	MSc.	Chemical Engineering	Baghdad University, Iraq.
2013	PhD.	Chemical Engineering	Universiti Sains Malaysia (USM), Malaysia.

B. Titles of Postgraduate Theses:

MSc Thesis: Study the Factors Affecting Cells of Sodium Perchlorate Production.

PhD Thesis: Development and Analysis of Hydrotalcite-Modified Porous Membranes for Carbon Dioxide Separation.

3. Work Experience:

Year	Position	Place of Work
2002-2005	Assistant Lecturer	Chemical Engineering Department, Tikrit University
2005-2009	Lecturer	Chemical Engineering Department, Tikrit University
2009- 2010	Assistant Professor	Chemical Engineering Department, Tikrit University
2011-2012	Grant Assistant	School of Chemical Engineering, Universiti Sains Malaysia (USM)
2013- 2014	Assistant Professor	Chemical Engineering Department, Tikrit University
2014- 2015	Assistant Professor	Chemical Engineering Department, Diyala University

4. Teaching Experience:

Subject Title	Stage	Year
Mass Transfer	Third	2002-2009 2013-2014
Numerical Methods	Fourth	2003-2009
Engineering Drawing	First	2002-2003
Mathematics	First	2002-2003
Mass Transfer Laboratory	Third	2003-2006
Numerical Methods Laboratory	Fourth	2003-2009
Basic Principles and Calculations in Chemical Engineering	First	2013-2014
Engineering Analysis	Third	2014-2015

5. Main Current Research Areas:

i. Membrane Technology For gas Separation/Enrichment

ii. Ceramic/Inorganic Material Engineering / Characterization / Sol-Gel Processing Renewable energy / Sustainability / Separation processes.

iii. Electrochemical Engineering / Electrodepositing.

6. Publications:

A. Published Papers in International Journals:

1. A. D. Wiheeb, J. Kim, M. R. Othman. **(2015)**. Highly perm-selective micro-porous hydrotalcite-silica membrane for improved carbon dioxide-methane separation. ***Separation Science and Technology***. DOI: 10.1080/01496395.2014.987300.

2. Z. Helwani, A. D. Wiheeb, I.K. Shamsudin, J. Kim, M. R. Othman. **(2014)**. The Effects of Fractality on Hydrogen Permeability Across Meso-Porous Membrane. ***Heat and Mass Transfer.*** DOI 10.1007/s00231-014-1445-7.

3. A. D. Wiheeb, M. A. Ahmad, M. N. Murat, J. Kim, M. R. Othman. **(2014)**. Identification of Molecular Transport Mechanisms in Micro-Porous Hydrotalcite–Silica Membrane. ***Transp Porous Med.*** 104(1), 133-144.

4. A. D. Wiheeb, M. A. Ahmad, M. N. Murat, J. Kim, M. R. Othman. **(2014).** Predominant Gas Transport in Microporous Hydrotalcite–Silica Membrane. ***Transp Porous Med***. 102(1), 59-70.

5. A. D. Wiheeb, M. A. Ahmad, M. N. Murat, J. Kim, M. R. Othman. **(2014)**. The effect of hydrotalcite content in microporous composite membrane on gas permeability and permselectivity. ***Separation Science and Technology***. 49(9), 1309-1316.

6. A. D. Wiheeb, M. A. Ahmad, M. N. Murat, J. Kim, M. R. Othman. **(2014)**.The Declining Affinity of Microporous Hydrotalcite-Silica Membrane for Carbon Dioxide. Journal of Porous Media. 17(2), 159-167.

7. Ahmed Daham Wiheeb, Ili Khairunnisa Shamsudin, Mohd Azmier Ahmad, Muhamad Nazri Murat, Jinsoo Kim and Mohd Roslee Othman. **(2013)**. Present technologies for hydrogen sulfide removal from gaseous mixtures. ***Reviews in Chemical Engineering***, 29(6), 449 – 470-

8. A.D. Wiheeb, Martunus, Z. Helwani, I.K. Shamsudin, J. Kim, M.R. Othman. **(2013).** Pore morphological identification of hydrotalcite from nitrogen adsorption. ***Chaos, Solitons & Fractals***, 49, 7-15.

9. Shamsudin I.K, Helwani Z, Abdullah A.Z, Wiheeb A.D, Othman M.R. **(2013)**. Glycine as Alternative Fuel in Making Hydrotalcite Compound by Means of Combustion Method. ***The Malaysian Journal of Analytical Sciences.*** 17(1), 171-175.

10. Martunus, Helwani, Z., Wiheeb, A.D., Kim, J., Othman, M.R. **(2012)**. A flow through behavior of gas across meso-porous membranes. ***Microporous and Mesoporous Materials***, 163, 115-121.

11. Martunus, Helwani, Z., Wiheeb, A.D., Kim, J., Othman, M.R. **(2012)**. Improved carbon dioxide capture using metal reinforced hydrotalcite under wet conditions. ***International Journal of Greenhouse Gas Control***, 7, 127-136.

12. Martunus, Helwani, Z., Wiheeb, A.D., Kim, J., Othman, M.R. **(2012)**. In situ carbon dioxide capture and fixation from a hot flue gas. ***International Journal of Greenhouse Gas Control***, 6, 179-188.

13. Z. Helwani, A.D. Wiheeb, J. Kim, M.R. Othman. **(in Press)**. In-situ mineralization of carbon dioxide in a coal-fired power plant. ***Energy Sources, Part A: Recovery, Utilization, and Environmental Effects***. DOI:10.1080/15567036.2013.813991.

14. Hui Teng Tan , Zuchra Helwani , Ahmed Daham Wiheeb , Jinsoo Kim , Mohd Roslee Othman. **(in Press)**. Conversion of Saga seeds into adsorbent and liquid fuel from pyrolysis and solvent extraction. ***Energy Sources, Part A: Recovery, Utilization, and Environmental Effects***. DOI:10.1080/15567036.2012.667505.

B. Published Papers in National Journals:

1. Ahmed D. Wiheeb, Thaer A. Abdulla, Omar S. Lateef. **(2011)**. Process Simulation Study of Ethyl Acetate Reactive Distillation Column by Hysys® 3.2 Simulator. ***Diyala Journal of Engineering Sciences***, 4(2), 39-56.

2. Ahmed D. Wiheeb, Muzher M. Ibrahim, Maha, I. Salih. **(2010)**. Estimating of Etchant Copper Concentration in The Electrolytic Cell Using Artificial Neural Networks. ***Tikrit Journal of Eng. Sciences***. 17(2), 9-21.

3. Ahmed D. Wiheeb. **(2009)**. The Manufacture of Perchlorate by Direct Method Using Graphite Substrate Lead Dioxide (GSLD) Anode. ***Diyala Journal of Engineering Sciences***, 2(1), 66-79.

4. Ahmed D. Wiheeb, Muayad A. Shehab and Maha I. Salih. **(2008)**. Estimating of CO_2 Conversion in Falling Film Reactor Using Artificial Neural Network. ***Diyala Journal of Engineering Sciences***, 1(1), 86-100.

5. Saba A. Ghani, Ahmed Daham Wiheeb, Mahera R. Qasem. **(2008)**. Mathematical Modeling of The Instantaneous Reaction of H_2S Mea in a Falling Film Reactor. ***Tikrit Journal of Eng. Sciences***. 15(1), 64-79.

6. Saba A.Ghani and Ahmed Daham Wiheeb. **(2006)**. Wastewater Treatment Using Modified Alumina. ***Tikrit Journal of Eng. Sciences***. 15(1), 63-81.

7. Ahmed Daham Wiheeb. **(2005)**. Electrolytic Production of Potassium Bromate Using Graphite Substrate Lead Dioxide (GSLD) Anode. ***Tikrit Journal of Eng. Sciences***. 12(4), 124-142.

8. Ahmed Daham Wiheeb and Majid I. Abdulwahab. **(2003)**. Study of the Factors Affecting Cells of Sodium Perchlorate Production. ***Iraqi Journal of Chemical and Petroleum Engineering.***

C. Conference Proceedings:

1. A.D. Wiheeb, Z. Helwani, M.A. Ahmad, M.N. Murat, M.R. Othman, Recent absorption technologies for hydrogen sulfide removal: A review. *Nanomaterials Technology Specialized Conference,Universiti Teknologi Malaysia*, **2012**.

2. A.D. Wiheeb, Z. Helwania, , M.A. Ahmad, M.N. Murat, M.R. Othman, Sol-gel synthesized hydrotalcite membrane supported on alpha alumina. *Nanomaterials Technology Specialized Conference,Universiti Teknologi Malaysia*, **2012**.

3. A.D. Wiheeb1, Z. Helwani, M.A. Ahmad,, M.N. Murat, I.K. Shamsudin, M.R. Othman. Mesoporous alumina-iron dioxide membrane from sol-gel method. *International Conference on Nanotechnology* **2012** *(ICONT 2012), Kuantan, Malaysia*.

4. A.D. Wiheeb, I.K. Shamsudin, Z. Helwani, M.R. Othman, Methanol and ammonia production: an overview. International *Conference on Environment* **2012** *(ICENV 2012).*

5. I.K. Shamsudin, A.Z Abdullah, A.D. Wiheeb, M.R. Othman, Improved thermal stability of glycine fueled hydrotalcite prepared from combustion method. *AKEPT 2nd global annual young researchers conference and exhibition* **2012**.

6. I.K. Shamsudin, Z. Helwani, A.Z. Abdullah, A.D. Wiheeb, M.R. Othman, Glycine as alternative fuel in making hydrotalcite compound by means of combustion method. *Seminar Lemak dan Minyak, Langkawi, Malaysia*, 7-8 Jun **2012**,

7. Martunus, Z. Helwani, A.D. Wiheeb and M.R. Othman, Carbon dioxide fixation into soda ash utilizing continuous stirred tank reaction model. *International conference of chemical engineering and industrial biotechnology in conjunction with 25th symposium of malaysian chemical engineer (icceib-somche)* **2011**.

8. Martunus, A., Helwani, Z., Wiheeb, A.D., Othman, M.R., Carbon dioxide sequestration at elevated temperature by pressure swing adsorption. 3rd ISESEE **2011** - *International Symposium and Exhibition in Sustainable Energy and Environment*, art. no. 5977082 , pp. 125-129.

D. Unpublished Papers in International Journals:

1. A. D. Wiheeb, M. A. Ahmad, M. N. Murat, J. Kim, M. R. Othman. Affinitive diffusivity of carbon dioxide on pore surface of micro-porous hydrotalcite-silica membrane. ***Submitted to the Microporous & Mesoporous Materials***.