

Curriculum Vitae

Personal Information:

Name : *Mohammad Shawki Ali El - Geundi*
Date of Birth : *05/08/1949*
Present Position: *Professor of Chemical Engineering,
Chemical Engineering Department,
Faculty of Engineering, Minia University, Egypt .*
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Education:

1984-1987: Ph.D., Chemical Engineering Department, the Queen's University of Belfast, N. I., UK and Minia University (Channel System).
1980-1983: M.Sc., Chemical Engineering Department, Faculty of Engineering, Minia University, Egypt.
1969-1974: B.Sc., Chemical Engineering Department, Faculty of Engineering, Alexandria University, Egypt.

Employment History:

*19/02/1975 – 14/01/1980: Research Assistant,
Chemical Engineering Department, Petroleum Research Institute,
Academy of Scientific Research & Technology, Cairo, Egypt .*
*15/01/1980 – 16/04/1983: Demonstrator,
Chemical Engineering Department, Faculty of Engineering, Minia University.*
*17/04/1983 – 24/06/1987: Lecturer Assistant,
Chemical Engineering Department, Faculty of Engineering, Minia University.*
*25/06/1987 – 29/09/1991: Lecturer,
Chemical Engineering Department, Faculty of Engineering, Minia University.*
*30/09/1991 – 23/02/1997: Assistant Professor,
Chemical Engineering Department, Faculty of Engineering, Minia University.*
*24/02/1997 – Present: Professor,
Chemical Engineering Department, Faculty of Engineering, Minia University.*

Teaching Experience:

1980 – 1984: Graduate teaching assistant for the following courses:
1) Chemical Engineering Principles 1 & 2;
2) Specialized Engineering Drawing;
3 Engineering Chemistry;
4) Mass Transfer.
1988 – Present: Developing and teaching the following courses:
(a) Under Graduate Courses:
1) Chemical Engineering Principles 1 & 2;

- 2) *Specialized Engineering Drawing;*
- 3) *Mass Transfer;*
- 4) *Engineering Chemistry;*
- 5) *Polymer Chemistry;*
- 6) *Polymeric Materials;*
- 7) *B.Sc. Project (Senior Project).*

(b) Post Graduate Courses:

- 1) *Adsorption Engineering;*
- 2) *Environmental Engineering.*

Activities:

(a) Referred Journal Publications:

El-Geundi worked as a referee for the following international Journals:

- 1) *Journal of "Separation Science and Technology"(USA)*
- 2) *Journal of "Hazardous Materials"(USA)*
- 3) *Journal of "Water Research"(England)*
- 4) *Journal of "Colloids and Surfaces"(Australia)*
- 5) *Journal of "Science and Technology"(Malaysia)*
- 6) *Journal of "Dirasat"(Jordan)*
- 7) *Journal of "King Saud University"(Saudi Arabia)*
- 8) *Journal of "Alexandria Engineering" (Egypt).*
- 9) *Journal of "Al Mukhtar Science"(Libya).*

(b) Supervision of Thesis:

(i) Ph.D. Thesis:

(1) Participating in the Supervision of Ph.D. Thesis (1988-1992):

***"Kinetics and Design of Bagasse Pith Adsorption Systems"
Channel System between the Queen's University of Belfast, UK and Minia University.***

(2) Participating in the Supervision of Ph.D. Thesis (1990-1995):

***"Modeling and Control of a Plate Heat Exchanger"
Channel System between Technical University of Denmark, Denmark and Minia University.***

(3) Participating in the Supervision of Ph.D. Thesis (2001-2007):

***"Removal of an Insecticide (Methomyl) from Aqueous Solutions Using Low-Cost Adsorbents"
Chem. Eng. Dept., Faculty of Engineering, Minia University.***

(4) Participating in the Supervision of Ph.D. Thesis (2005-2008):

***"Removal of Organics, Lubricating Oils, Cyanides from Industrial Wastewater using a Recent Advanced Technique"
Chem. Eng. Dept., Faculty of Engineering, Minia University.***

(5) Participating in the Supervision of P.D. Thesis (2006-2010):

***"Mass Transfer Studies during the Adsorption of Dyestuffs using Yemen Clay"
Chem. Eng. Dept., Faculty of Engineering, Minia University.***

(ii) M.Sc. Thesis:

(1) Participating in the Supervision of M.Sc. Thesis (1988-1992):

***"Removal of Nickel from Industrial Wastewater using Clay"
Chem. Eng. Dept., Faculty of Engineering, Minia University.***

(2) Participating in the Supervision of M.Sc. Thesis (2000-2003):

***"Adsorption Kinetics of an Herbicide (Pendimethalin) from Aqueous Solutions"
Chem. Eng. Dept., Faculty of Engineering, Minia University.***

(3) **Participating in the Supervision of M.Sc. Thesis (2000-2003):**
“Removal of an Insecticide (Diazinon) from Aqueous Solutions using Adsorption Technique”

Chem. Eng. Dept., Faculty of Engineering, Minia University.

(4) **Participating in the Supervision of M.Sc. Thesis (2003-2007):**

“Studies of the Characterization of Some Agricultural Wastes Utilizing as Low-Cost Adsorbents”

Chem. Eng. Dept., Faculty of Engineering, Minia University.

Extra –Curricular Activities:

- 1) Assistant Professor of Chemical Engineering at College of Technology- Riyadh, Kingdom of Saudi Arabia(1993-1999).
- 2) Professor of Chemical Engineering at Chemical Engineering Department, Faculty of Engineering, Omar Al- Mukhtar University, Libya (2006-2013).
- 3) Member of the American Chemical Society.
- 4) Member of the Egyptian Society of Chemical Engineers (1975-2014).
- 5) Member of the Quality Assurance and Accreditation Project (QAAP), Faculty of Engineering, Minia University, Egypt and Omar Al Mukhtar University, Libya.

Conferences:

- 1) Minia International Conference for Advanced Trends in Engineering (MICATE 2002) (March 2002).
- 2) Minia International Conference for Advanced Trends in Engineering (MICATE 2005) (April 2005).
- 3) Minia International Conference “Towards a Safe and Clean Environment”(TSCE 2005) (April 2005).
- 4) Tripoli-Libya "The 14th Arab Chemistry Conference & Exhibition" (ACC-14) (April 2008).
- 5) Seventeenth International Water Technology Conference, IWTC17 (2013), Istanbul, Turkey.

Research Experience:

My research activity has started in 1980 at Chemical Engineering Dept. Faculty of Engineering, Minia University.

1980 - 1983: M.Sc. Thesis: “Effluent Treatment for Colour Removal”.

Chemical Engineering Dept., Faculty of Engineering, Minia University.

1984-1987: Ph.D. Thesis "Mass Transfer Processes During Colour Removal from Effluent using Adsorption Technique”.

Channel System between the Queen’s University of Belfast, UK and Minia University, Egypt.

1988-Present: My current research work is focused on the mass-transfer processes during the removal of pollutants from aqueous solutions using adsorption technique.

The research program can be summarized into the following:

1) The feasibility of low-cost materials as adsorbents (Sawdust, Bagasse pith, Maize cob, Natural and Activated clays) for the removal of color, heavy metals and pesticides from effluents.

2) A study of the design of batch and fixed bed systems.

Various mathematical models have been used in an attempt to predict the kinetics and mass-transfer processes involved during the adsorption of pollutants onto adsorbents. I have established new models for batch and fixed contacting systems in terms of two-resistance and three- resistance models.

LIST OF PUBLICATIONS:

- (1) Asfour, H. M.; Fadali, O. A.; Nassar, M. M. and **El-Geundi, M. S.**,
"Equilibrium Studies on Adsorption of Basic Dyes on Hardwood",
Journal of Chemical Technology and Biotechnology (1985), Vol.35, No.1, 21-27.
- (2) Asfour, H. M.; Nassar, M. M.; Fadali, O. A. and **El-Geundi, M. S.**,
"Colour Removal from Textile Effluents using Hardwood Sawdust as an Adsorbent",
Journal of Chemical Technology and Biotechnology (1985), Vol. 35, No.1, 28-35.
- (3) McKay, G.; **El-Geundi, M. S.** and Nassar, M. M.,
"Equilibrium Studies during the Removal of Dyestuffs from Aqueous Solutions using Bagasse Pith",
Water Research (1987) Vol.21, No. 12, 1513-1520.
- (4) McKay, G.; **El-Geundi, M. S.** and Nassar, M. M.,
"External Mass Transport Processes during the Adsorption of Dyes onto Bagasse Pith",
Water Research (1988), Vol. 22, No. 12, 1527-1533.
- (5) McKay, G.; **El-Geundi, M. S.** and Abdul Wahab, M. Z.,
"Two-Resistance Mass Transfer Model for the Adsorption of Dyes onto Bagasse Pith",
Water, Air, and Soil Pollution (1988), Vol. 42, No.(1-2),33-46.
- (6) McKay, G., **El Geundi, M. S.** and Mansour, I. S
"Adsorption of Dyes onto Bagasse Pith using a Solid Diffusion Model",
Journal of Applied Polymer Science (1988) Vol. 36, No.1, 43–54.
- (7) McKay, G., **El-Geundi, M. S.**; Abdul Wahab, M. Z., and Nassar, M. M.,
"An Analytical Two-Resistance Mass Transfer Model for Dye Adsorption on Bagasse Pith",
Pertanika (1990) Vol.13, No.3, 395-403.
- (8) Al-Duri, B.; McKay, G.; **El-Geundi, M. S.** and Abdul Wahab, M.Z.,
"Three-Resistance Transport Model for Dye Adsorption onto Bagasse Pith",
Journal of Environmental Engineering (1990), Vol. 116, No. 3, 487-502.
- (9) **El-Geundi, M. S.** and Nassar, M. M.,
"Dimensionless Mass Transfer Correlations during the Adsorption of Dyestuffs onto Bagasse Pith",
Minia Journal of Engineering and Technology (June1990), Vol. 9, No.1, 126-141.
- (10) **El-Geundi, M. S.**,
"Intraparticle Diffusion Processes during the Adsorption of Basic Dyestuffs onto Maize Cob",
Minia Journal of Engineering and Technology (June 1990), Vol. 9, No.1, 186-197.
- (11) **El-Geundi, M. S.** and Mansur, S. A.,
"Natural Clay as an Adsorbent for Basic Dyestuffs",
Minia Journal of Engineering and Technology (June 1990) Vol. 9, No.1, 222-234.
- (12) **El-Geundi, M. S.** and Nassar , M. M.,
"Adsorption Isotherms of Cationic Dyestuffs onto Natural Clay",
Minia Journal of Engineering and Technology (June 1990), Vol. 9, No.1, 252-262.
- (13) **El-Geundi, M. S.**,
"Adsorption Equilibria of Basic Dyestuffs onto Maize Cob",
Adsorption Science & Technology (1990), Vol. 7, No. 3, 114-123.
- (14) **El-Geundi, M. S.**,
"External Mass Transport Processes during the Adsorption of Basic Dyestuffs onto Maize Cob",
Adsorption Science & Technology (1990), Vol. 7, No. 3, 124-132.

- (15) **El-Geundi, M. S. and Akl, M.,**
"Evaluation of Effective Pore Diffusion and External Mass Transfer Coefficients for Maize Cob Adsorption",
TESCE (1991), Vol. 17, No.1, 31-51.
- (16) **El-Geundi, M. S. and Akl, M.,**
"Evaluation of Surface Diffusion and External Mass Transfer Coefficients for Maize Cob Adsorption",
TESCE (1991), Vol. 17, No. 1, 52-66.
- (17) **Nassar, M. M. and El-Geundi, M. S.,**
"Comparative Cost of Colour Removal from Textile Effluents Using Natural Adsorbents",
Journal of Chemical Technology and Biotechnology (1991), Vol.50, No.1, 257-264.
- (18) **El-Geundi, M. S.,**
"Colour Removal from Textile Effluents by Adsorption Techniques",
Water Research (1991), Vol. 25, No.3, 271-273.
- (19) **El-Geundi, M. S.,**
"Homogeneous Surface Diffusion Model for the Adsorption of Basic Dyestuffs onto Natural Clay in Batch Adsorbers",
Adsorption Science & Technology (1991), Vol. 8, No. 4, 217-225.
- (20) **El-Geundi, M. S.,**
"Pore Diffusion Model for the Adsorption of Basic Dyestuffs onto Natural Clay in Batch Adsorbers",
Adsorption Science & Technology (1992), Vol.9, No. 2, 109-122.
- (21) **El-Geundi, M. S. and Ali, A.,**
"Equilibrium Studies during the Adsorption of Acid Dyestuffs onto Maize Cob",
Adsorption Science & Technology (1992), Vol. 9, No. 3, 121-129.
- (22) **El-Geundi, M. S.,**
"Branched-Pore Kinetic Model for Basic Dyestuff Adsorption onto Natural Clay",
Adsorption Science & Technology (1992) Vol. 9, No. 3, 199-211.
- (23) **Hawash, S.; El-Abed, H.; El-Geundi, M. S.; Nassar, M. M. and Farah, J.**
"Useful Adsorption Equilibrium by Means of Natural Clay",
Adsorption Science & Technology (1992), Vol. 9, No. 4, 231-243.
- (24) **Hawash, S.; Farah, J. Y. and El-Geundi, M. S.,**
"Investigation of Nickel Ion Removal by Means of Activated Clay",
Adsorption Science & Technology (1992), Vol. 9, No. 4, 244-257.
- (25) **Khattab, M. A.; Hosny, A. Y.; Nassar, M. M. and El-Geundi, M. S.,**
"Thermal Studies of Some Dye - Adsorbent Materials",
Energy Sources (1993), Vol. 15, No. 3, 505-512.
- (26) **El-Geundi, M. S. and Nassar, M. M.,**
"Studies of the Dimensionless Mass Transfer Coefficient during the Adsorption of Basic and Acid Dyes onto Bagasse Pith",
Adsorption Science & Technology (1994), Vol. 11, No. 3, 73-81.
- (27) **El-Geundi, M. S.; Ismail, H. M. and Attyia, K. M.,**
"Activated Clay as an Adsorbent for Cationic Dyestuffs",
Adsorption Science & Technology (1995) Vol. 12, No. 2, 109-117.
- (28) **El-Geundi, M. S.,**
"Adsorption Kinetics of Cationic Dyestuffs onto Natural Clay",
Adsorption Science & Technology (1996), Vol. 13, No.4, 295-303.
- (29) **McKay, G.; El-Geundi, M. S. and Nassar, M. M.,**
"Pore Diffusion Model during the Adsorption of Dyes onto Bagasse Pith",
Trans IChE (1996), Vol. 74, 277-288.

- (30) McKay, G.; **El-Geundi, M. S.** and Nassar, M. M.,
“Equilibrium Studies for the Adsorption of Dyes on Bagasse Pith”,
Adsorption Science & Technology (1997), Vol.15, No.4, 251-270.
- (31) McKay, G.; **El-Geundi, M. S.** and Nassar, M. M.,
“Adsorption Model for the Removal of Acid Dyes from Effluent by Bagasse Pith Using a Simplified Isotherm”,
Adsorption Science & Technology (1997), Vol. 15, No. 10, 737-752.
- (32) **El-Geundi, M. S.**,
“Adsorbents for Industrial Pollution Control”,
Adsorption Science & Technology (1997), Vol. 15, No.10, 777-787.
- (33) **El-Geundi, M. S.**; Farrag, T. E. and Abd El-Ghany, H. M.,
“Adsorption Equilibrium of a Herbicide (Pendimethalin) onto Natural Clay”,
Adsorption Science & Technology (2005), Vol. 23, No. 6, 437-453.
- (34) **El-Geundi, M. S.**; Hussein, S. M. and Farrag, T. E.,
“Removal of an Insecticide (Diazinon) from Aqueous Solutions Using Natural Clay”,
Minia International Conference for Advanced Trends in Engineering (MICATE) (2005)
- (35) **El-Geundi, M. S.**; Hussein, S. M. and Farrag, T. E.,
“External Mass Transfer Model Applied to the Adsorption of an Insecticide (Diazinon) onto Natural Clay”,
Minia International Conference for Advanced Trends in Engineering (MICATE) (2005)
- (36) **El-Geundi, M. S.**; Hussein, S.M., Farrag, T. E. and Abd El-Ghany, H. M.,
“Adsorption of a Herbicide (Pendimethalin) from Aqueous Solutions onto Natural Clay”,
Minia International Conference for Towards A Save and Clean Environment (TSCE) (2005).
- (37) **El-Geundi, M. S.**; Farrag, T. E. and Abd El-Ghany, H. M.,
“Adsorption Kinetics of a Herbicide (Pendimethalin) onto Natural Clay”,
Minia International Conference for Towards A Save and Clean Environment (TSCE) (2005).
- (38) Khalaf, H.A.; **El-Geundi, M. S.** and Mansour, S.,
“Adsorption Equilibria of Some Heavy Metals onto Metal Hydroxides Coated Sand”,
Tripoli-Libya "The 14th Arab Chemistry Conference & Exhibition"(ACC-14) (2008)
- (39) **El-Geundi, M. S.**; Nassar, M. M., Farrag, T. E. and Ahmed, M.H.
“Removal of an Insecticide (Methomyl) from Aqueous Solutions using Natural Clay”,
Alexandria Engineering Journal (2012), Vol. 51, No.1, 11-18.
- (40) Nassar M. M., **El-Geundi, M.S.**, AL- Wahbi, A. A.,
“Enhancing Adsorption of Dyes onto Clay in Bubble Column Adsorber”,
Adsorption Science & Technology (2012), Vol. 30, No. 7, 567-577.
- (41) Nassar M.M., **El-Geundi, M.S.**, Al - Wahbi, A.A.,
“Equilibrium Modeling and Thermodynamic Parameters for Adsorption of Cationic Dyes onto Yemen Natural Clay”,
Desalination and Water Treatment (2012), Vol.44, Issue 1-3, 340 -349
- (42) **El-Geundi, M. S.**; Nassar, M. M, Farrag, T. E. and Ahmed, M.H.,
“Methomyl Adsorption onto Cotton Stalks Activated Carbon (CSAC): Equilibrium and Process Design”,
Procedia Environmental Sciences (2013), Vol.17, 630-639.
- (43) **El-Geundi, M. S.**; Nassar, M. M, Farrag, T. E. and Ahmed, M.H.,
“Kinetic Models for Uptake of Pesticide (Methomyl) from Aqueous Solutions Using Cotton Stalks Activated Carbon”,
Seventeenth International Water Technology Conference, IWTC17 (2013), Istanbul, Turkey.
International Water Technology Journal (IWTJ) (In Press)

- (44) **Mohammad S. El-Geundi and Assanousi Abufares, A.,**
“Adsorption Equilibria of an Insecticide Diazinon onto Natural Clay”,
Al Mukhtar Journal of Sciences (2013), Vol. 28, No. 01, 1-15.
- (45) **Mohammad S. El-Geundi, and Assanousi Abufares, A.,**
“Adsorption Kinetics of an Insecticide Diazinon onto Natural Clay”,
Al Mukhtar Journal of Sciences (2013), Vol. 28, No.01, 16-28.
- (46) **Mohammad S. El-Geundi, and Assanousi Abufares, A.,**
“Adsorption Isotherm of an Insecticide Methomyl onto Natural Clay”,
Al Mukhtar Journal of Sciences (2013), Vol. 28, No.01, 46-59.
- (47) **Mohammad S. El-Geundi, and Reda A. A.,**
“Modeling of Adsorption Isotherms of Pesticides onto Natural Clay”,
Bulletin of the Faculty of Engineering, Minia University (2014), Vol. 33, No. 1, 133-147.
- (48) **Mohammad S. El-Geundi, Eman A. Ashour, Reda M. A. Abobeah, Nabila Shehata,**
“Determination of Specific Surface Area of Natural Clay by Comparative Methods”
International Journal of Science, Engineering and Technology Research (IJSETR), Vol. 3, Issue 8, August (2014),2099-2102.