

RESUME

AGHAREED M. TAYEB

PERSONAL INFORMATION:

PLACE & DATE OF BIRTH

* Alexandria, Egypt, Feb. 13, 1948

Position

* professor and former dean, faculty of Engineering, Minia University, Minia,

Egypt

MARITAL STATUS

* Married and have four children

ADDRESS & TELEPHONE

* Faculty of Engineering, Minia University, Minia, Egypt

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086 2366624 - Residence
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LANGUAGES:

- * Good command of Arabic (mother tongue) .
- * Fluent English (Reading, writing and speaking)

HIGHER EDUCATION:

a. Academic Qualifications:

- * B.Sc. in Chemical Engineering, University of Alexandria, Egypt, June 1971
- * M.Sc. in Chemical Engineering, University of Alexandria, Egypt, June 1978.
- * Ph. D. in Chemical Engineering, Channel System; University of Miami, USA- El-Minia University, El-Minia, Egypt, June 1981

Minia

b. Thesis:

- * M.Sc. "Diffusion of 2-Naphthol in different organic solvents".
- * Ph. D. " Investigation of a solar drying unit for different agricultural Products

CONTINUING EDUCATION:

- Pollution Treatment & Control * University of Alexandria, Egypt , 1978
- Computer programming * Center of continuing studies, El-Minia University, 1978
- Intensive English course * University of Miami, USA, 1980
- Computer programming * University of Miami, USA, 1980
- Completed a Technical Cooperation Program,

Agency for International
Development of the Govern-
ment of the USA.

* USA, Sep. 1979- Sep. 1981.

PROFESSIONAL EXPERIENCE:

- Engineer in Moharrem Press, Alexandria, Egypt (March 72- June 1978).
- Teaching Assistant in Chemical Engineering Dept., El-Minia University, El-Minia, Egypt (June 1978- May 1981).
- Teacher in Chemical Engineering Dept., El-Minia University, El-Minia, Egypt (May 1981- June 1987).
- Assistant Professor in Chemical Engineering Dept., El-Minia University, El-Minia, Egypt (June 1987- November 1992).
- Full Professor in Chemical Engineering Dept., El-Minia University, Egypt (November 1992 to July, 2002).
- Vice Dean for Community Development and Environmental Affairs, Faculty of Engineering, El- Minia University (July 2002 till 14 October 2005).
- Dean, Faculty of Engineering, Minia University (15 October 2005 till 31 July, 2008).

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

- International Solar Energy Society
ISES & American Solar Energy
Society ASES. * Member
- International Energy Foundation,
IEF, Tripoli * Member
- International Association for
Solar Energy Education, Sweden * Member
- Egyptian Engineers Syndicate * Member
- Egyptian Society of Chemical Engineers * Member
- Society of Egyptian Engineers * Member
- Egyptian Solar Energy Society * Member
- New York Academy of Sciences * Member
- American Biographical Institute * Member
- Research Board of Advisors ,
American Biographical Institute * Member
- Committee of Women Affairs, Minia Governorate * Member
- Maadi Association for Culterists, Egypt * Member

HONOURS AND AWARDS:

- Scholarship from University of Miami, Fla., USA, 1979.
- Awarded from Egyptian Association for Social & Technological Utilization for developing designs for solar energy utilization in different fields, 1987.
- Included in the "National Encyclopedia of Outstanding Persons", Vol. 4, Egypt.
- Got a certificate from the New York Academy of Sciences of being elected an active member of the academy.
- Had a certificate from Marquis Who's Who Publication Board for being considered as subject of biographical record in Who's Who in The World, Fourteenth edition, 1997.
- Have been chosen for distinguished standing and has been conferred to the research board of advisors in the Board Governor of the American Biographical Institute.
- Had a certificate and a nomination for inclusion in the Fifth Edition of Five Thousands Personalities of the World through the American Biographical Institute.
- Have been awarded and got a certificate from Academy of Scientific Research, Egypt, for presenting the best applied research paper in Environmental Science (Paper on Industrial Wastewater Treatment).
- Have registered for and got a patent on. Production of a Biodegradable Plastic from Agricultural Wastes, Patent No. 13112002.
- Have been nominated from Minia Governorate as a member in the United Nations Development Program, UNDP, for the Slum Upgrading Project.
- Have been awarded from the National Women Council, Minia Branch, in the occasion of celebrating the International Day of Women, for being a leader in Minia Governorate.

GRADUATE STUDENT ACTIVITIES:

DISSERTATION SUPERVISION:

1. M.Sc. : Eighteen Thesis on:

- a. Energy Conservation.
- b. Use of Solar Energy in Detergent Drying
- c- Diffusion in Two Phase Systems
- d. Separation Processes
- e. Solar Drying of Fabrics.
- f. Automatic Control of a Shell -and-Tube Heat Exchanger
- g. Separation of Methane Gas from Natural Gases
- h. Concentration of Phosphate Ores.
- i .Treatment of effluents from Industry.
- j. Industrial waste water treatment using solar energy (Detoxification).
- k. Energy recovery from solid wastes
- l. Control of car exhaust emissions
- m. Sun tracking systems.
- n. Starch recovery from waste streams.
- o. Fluid flow characteristics in different porous media
- p. Manufacture of cellulose acetate from agricultural residues.
- q. Solar foam- mat drying of fruits
- r. Adsorptive storage of Natural Gas.

2. Ph. D. : Nine Students, thesis on:

- a. Phase- change energy storage systems
- b. Production of Ethanol from Agricultural Residues.
- c. Treatment of effluents from the petroleum industry
- d. Energy conservation in a reforming process.
- e. Oil recovery from petroleum effluents using a novel flotation device.
- f. Energy recovery from exhaust emissions of cars.
- g. Use of Ultrasonic technique for wastewater treatment.
- h. Use of Photo-Fenton technique for wastewater treatment.
- i. Innovative techniques for treatment of oil-polluted water.

COURSES TAUGHT:

UNDERGRADUATE COURSES:

- Principles of Chemical Engineering, 2nd. year, Chemical Engineering Dept.
- Specialized engineering drawing, 2nd. year, Chemical Engineering Dept.
- Heat transfer & Mass Transfer, 3rd. year, Chemical Engineering Dept.
- Unit Operations, 3rd. year, Chemical Engineering Dept.
- Energy: resources and conservation.
- Economics & Plant Management, 4th. year, Chemical Engineering Dept.

GRADUATE COURSES :

- Selective Course: Renewable Energy sources.
- Selective course: Energy conservation and recovery.
- Unit operations.
- Advanced Engineering of chemical industries.
- Transparent Insulation Technology, selective course
- Advanced oxidation processes (AOPs) for industrial wastewater treatment.

CONFERENCES PARTICIPATED:

- International symposium-workshop on solar energy, Cairo, Egypt, June 16-22, 1978.
- Second Miami International Conference on Alternative Energy Sources, Miami Beach, Fla. Dec. 10-13, 1979.
- The Renewable Challenge, 1982 Annual Meeting of American Solar Energy Society, Houston, Texas, USA (Presented two papers).
- Second Scientific Workshop about the Suitable Technologies in the Fields of Energy and Environment, held by Egyptian Association of Social and Technological Researches, Dec. 1987.
- Manila International Symposium on the Development & Management of Energy Sources, 26-28 Jan. 1989.
- World Renewable Energy Congress, Reading, UK, 23-28 Sep. 1990 (Presented one paper).

- NORTHSUN'90, University of Reading, UK, 19-21 Sep. 1990 (Presented one paper).
- Fourth Minia Conference on Energy and its Uses, Minia, Egypt, 8-9 Sep. 1991 (Presented one paper).
- Third International Conference on Applications of Solar & Renewable Energy (ASRE92), Cairo, Egypt 19-22 April, 1992 (Presented one paper).
- International Multi-conference " Neural Network, Modeling & Simulation, Knowledge Processes, Chicago (USA), Sep. 2-4, 1992 (Presented one paper).
- Third International Conference : Solar Energy Storage and Applied Photo-chemistry, Cairo, Egypt, 8-14 January, 1995
- 7th. IAWQ International Conference on Design and Operation of Large Wastewater Treatment Plants, Vienna, Austria, Aug. 27 to Sep. 1, 1995.
- 5th. Cairo International Conference on Energy and Environment, Cairo, Egypt 3-6 June 1996.
- Workshop on Energy Conservation, Faculty of Engineering, Alexandria University, Alexandria, Egypt, 18 March, 1998.
- Sixth Cairo International Conference on Energy and Environment, Cairo, Egypt, May 18-21, 1998.
- Fourth International Conference on Recovery , Recycling and Reintegration, R'99, 2-5 Feb., 1999, Geneva, Switzerland.
- The First Minia International Conference for Advanced Trends in Engineering, MICATE'99, 14-16 March, 1999, Minia, Egypt.
- Seventh International Conference on Energy and Environment, 11-13 March, 2000, Cairo, Egypt.
- The Second Minia International Conference for Advanced Trends in Engineering, MICATE'2002, 7-9 April, 2002, Minia, Egypt.
- Regional Workshop on industrial wastewater treatment, 24-28 January, 2004.
- The third workshop on Scientific Research and Technological Development, Riyadh, Saudi Arabia, 11-14 April, 2004.
- International Conference on Vehicle Alternative Fuel Systems and Environmental Protection, Dublin, Ireland, July 6-9, 2004.
- Third Minia International Conference for Advanced Trends in Engineering, Faculty of Engineering, El-Minia university, El-Minia, Egypt, 3-5 April, 2005
- Minia International Conference, Towards a Safe and Clean Environment, Minia university, Minia, Egypt, 15-17-April, 2005
- Second Egyptian- Syrian Conference on Food and

Agriculture, Homos, Syria, 25-28 April, 2005

- A glass of clean water, Maadi Association for culturiests, Nov., 2008

SPECIAL RESEARCH INTEREST:

Solar energy storage, Recycling of solid wastes, Wastewater treatment, Reuse of industrial wastes, Solar drying, Solar desalination, Energy storage, Simulation and modeling, Ethanol production from agricultural wastes. Energy conservation and recovery.

SUBJECTS UNDER STUDY AT THE TIME BEING:

- Improving the performance of solar equipment using the concept of Transparent Insulation Technology (TIT)
- Use of flue gases from Cane Sugar Industry for drying yeast.
- Treatment of solid, liquid and gaseous effluent from the Cane Sugar Industry.
- Use of industrial wastes for storing solar energy.
- Solar detoxification as a means for destruction of organic pollutants in water streams.
- Industrial recycling of wastes from the food processing industries.
- Heat recovery from solid wastes.
- Control of car exhaust emissions
- Sun tracking systems.
- Production of plastic from agricultural cellulosic wastes.
- Solar foam- mat drying for producing instant fruit powders.
- Use of solar energy for photocatalytic degradation of industrial wastes.

PUBLICATIONS:

I: Books:

Have published one book entitled:

Renewable Energy; Sources and Conservation.

Author: Aghareed M.Tayeb

Editor: Aghareed M.Tayeb

Published by: Minia University press, 2004

Pages: 212

The book is published on line in the site: <http://cms.nelc.edu.eg>, and it is the only book published electronically in Faculty of engineering, Minia University.

II: Papers:

1. " Renewable Energy: its Time Has Come", jointly with A.A. El-Bassuoni, Published in Magazine of Engineers Syndicate., Egypt, 1980.
2. "Solar Drying of Tomato in the Form of Sheets", published in Proceedings of Third International Drying Symposium & Dryex'' 82, Birmingham, England, Sep. 13-16, 1982.
3. " Solar Fruit Drying in Egypt", Published in Proceedings of the Renewable Challenge 1982 Annual Meeting of American Solar Energy Society, Houston, Texas, 1982, p. 15.
4. " A Computer Program for Calculating Direct and Diffuse Solar Radiation on Inclined Surfaces in Egypt", Ibid, p. 1982.
5. " Solar-Collector Dryer", published in Proceedings of 5th. Miami International Conference on Alternative Energy Sources 13-15 December 1982.

6. " Solar Fluidization Drying", Aghareed M. Tayeb, published in Proceedings of 6th. Miami International Conference on Alternative Energy Sources, 12-14 Dec. 1983.
7. " Modern Solarized Grain Dryer", Aghareed M. Tayeb, published in International Journal of Solar and Wind Technology, vol. 3, No. 3, 1986.
8. " Study on the Effect of Different Colours on Enhancing Solar Distillation", jointly with A.A. El-Bassuoni and H. Farag, proceedings of International Conf. on the Development of Alternative Energy Sources and the Lessons Learned since the Oil Embargo, North Dakota, USA, May 1986.
9. " Non-Conventional Energy Source for Automobile Applications", jointly with A.A. El- Bassuoni, Ibid.
10. " Factors Affecting Diffusion of 1-Naphthylamine in Different Organic Solvents", Jointly with A.A. El-Bassuoni, Proceedings of 4th. Miami International Symposium on Multi-Phase Transport and Particulate Phenomena, Miami, Florida USA, Dec. 1986.
11. " Diffusion in Different Polymer-Solvent Systems Using Rotating Disc", jointly with A.A. El-Bassuoni, published in Proceedings of 4th. Miami International Symposium on Multi-phase Transport and Particulate Phenomena, Miami, Florida , USA, Dec. 1986.
12. " Enhanced and Extended Solar Evaporation", published in Manila International Symposium on the Development and Management of Energy Sources, 26-28 Jan. 1989.
13. " Feasibility and Planning of Renewable Energy Sources in Developing Countries", jointly with A.A. El-Bassuoni, ISES Solar World Congress 1989 , KOBE, Sep. 4-8, 1989, Japan.
14. " Prospects of a Solar Community for Reducing Environmental Damage and Saving Fossil Fuels", NORTHSUN 90 Congress, Reading, UK, 25-28 September 1990.
15. " A New Dynamic Model for a Shell-and-Tube Heat Exchanger", co-authored with M.A. El-Rifai, Y.A. El- Tawil and R.M. Abdel-Monem. Published in Energy Conversion and Management, an International Journal vol. 32, No. 5, Sep. 1991.
16. " Calculation of Optimal Controller Settings and Transient Responses of a Shell-and-Tube Heat Exchanger". Co-authored with M.A. El-Rifai, Y.A. El-Tawil and R.M. Abdel-Monem. Published in Energy Conversion and Management, an International Journal Vol. 32, No. 5, Sep. 1991.
17. " Modeling as a Tool for Process Control Alcoholic Fermentation". Co-authored with I.A. Ashour and N.A. Mostafa. Published in Energy Conversion and Management, an International Journal, Vol. 32, No. 5, Sep. 1991.
18. " Optimizing Energy Production from Agro-Wastes: A Case Study for the Fermentation of Egyptian Beet Molasses". Co-authored with H.M. Asfour, I.H. Aly and N.A. Mostafa. Published in Energy Conversion and Management, an International Journal, Vol. 32, No. 5, Sep. 1991.
19. "Alcohol Production from Acid Hydrolyzate of Akalona". Co-authored

- with H.M. Asfour and N.A. Mostafa. Published in *Energy Conversion and Management*, an International Journal, Vol. 32, No. 5, Sep. 1991.
20. "Industrialization of the Acidulation Process of Egyptian Phosphate Ores". Co-authored with E.A. Mahmoud. Published in *Bulletin of the Faculty of Engineering & Technology*, Minia University, Vol. 9, No. 1, 1990.
 21. "Performance Study of Some Designs of Solar Stills", Published in *Energy Conversion and Management*, an International Journal, Vol. 33, No. 9, pp. 889-898, 1992.
 22. "Solar-Augmented Foam Mat Drying of Fruits". Published in proceedings of International Conference on Applications of Solar and Renewable Energy, Cairo, Egypt, April 1992 and published in *Renewable Energy*, an International Journal , Vol. 4, No.3, pp. 283-289 (1994), Pergamon Press.
 23. "A Simulation Model for a Phase-Change Energy Storage System". Published in *Energy Conversion and Management*, an International Journal, Vol. 34, No. 4, April 1993.
 24. "Use of Solar Energy for Fabric Drying". *SUN WORLD*, an International Journal (received Aug. 1990, accepted July 1992).
 25. "New Applications for Mixed-Mode Drying Concept". Published in Proceedings of the 1993 Annual Conference, ASES, Washington D.C., April 25 -28, 1993.
 26. "Factors Influencing the Performance of Basin-Type Solar Desalination Units", Jointly with A.A. El-Bassuoni. Published in *Energy Conversion and Management*, an International Journal, Vol. 35, No.8, pp. 693-698, Pergamon Press (1994).
 27. "Design of a purification plant for effluents from an oil and fats factory", Jointly with A.A. El-Bassuoni, I.A. Ashour, H.H. Aleem, Proceedings of 7th. IAWQ International Conference on Design and Operation of Large Wastewater Treatment Plants, Technical University of Vienna, Vienna, Austria, August 27 to Sep. 1, 1995.
 28. "Organic-inorganic mixtures for solar energy storage systems", *Energy Conversion and Management*, an International Journal, V. 36 N. 10, October, 1995.
 29. "Use of some industrial wastes as energy storage media", *Energy Conversion and Management*, an International Journal, V.37 N.2, 1996.
 30. "Use of Transparent Insulation Materials for Improving the Performance Of Solar Water Heaters", Proceedings of 5th. Cairo International Conference on Energy and Environment, Cairo, Egypt, June 3-6, 1996.
 31. "Waste Management and Energy from Wastes", Presented in Energy Conversion Workshop, Faculty of Engineering, Alexandria University, Egypt, June 18, 1998. and Published in the book of the workshop.
 32. "Detoxification of Wastewater polluted with Chlorinated Hydrocarbons", Proceedings of "Cairo 6th. International Conference on Energy and Environment, organized by Supreme Council for Research Centers & Institutes, Egypt and Wayne State University, USA, May 18-21, 1998.
 33. "Detoxification: An Environmentally-Friendly Technique for Industrial Wastewater

Treatment”, Proceedings, 4th. International Congress on Recovery, Recycling and Re- Integration, R’99, 2-5 Feb. 1999, Geneva, Switzerland.

34. ‘Investigation of Weather Durability of Solar Water Heaters Improved by Transparent Insulation Materials’, Conf. Proceedings, The First Minia International Conference for Advanced Trends in Engineering, MICATE’99, 14-16 March, 1999, Minia, Egypt.
35. “ Wastewater Treatment Plant for Effluents from an Oil and Fats Company”, Proceedings of the Seventh International Conference on Energy and Environment, 11-13 March, 2000, Cairo, Egypt.
36. Nutrients Recovery from Effluents of Starch Industry”, Jointly with N. A. Mostafa, H.M.Asfour, N.M. El- Zahed, Proceedings of the 10th.International Conference of Environmental Protection is a Must, Alexandria University, 9-11 May, 2000, Alexandria, Egypt.
37. “The Recovery of Oil from Spent Bleaching Earth”, jointly with A.A. El- Bassuoni, H.O. El- Sherief, and K.K. Ahmed, published in Proceedings of Fifth International Congress on Recovery, Recycling and Re-Integration, R’2000, June 2000, Toronto, Canada.
38. “Nutrients and Water Recovery from A Carbohydrate Industrial Effluent, Part I: Steam Evaporation with Interstage Clarification”, Proceedings of The 2nd Minia International Conference for Advanced Trends in Engineering, pp1445-1454, April 7-9, 2002, Minia, Egypt.
39. “Nutrient and Water Recovery from A Carbohydrate Industrial Effluent, Part II:Economy Through Solar Energy Application”, ibid pp1461-1467.
40. “ Modification of Urea- Sodium Acetate Trihydrate Mixture for Solar Energy Storage”, Under publication in Renewable Energy, an International journal, Pergaon Press, 2004.
41. “ Innovative processes for Industrial Wastewater Streams”, A paper presented in Workshop of New technologies for Treatment and recycle of Wastewater and Sludge, Alexandria, Egypt, 24-28 january, 2004.
42. “ Production of Natural Plastic from Agricultural Residues”, An Applied paper presented in SROIII, Riyadh, Saudi Arabia, 11-14 April, 2004.
43. “A New Trend For Natural Gas Storage, I- Adsorptive Storage of Natural Gas”, A Paper presented and published in International Conference on Vehicle Alternative Fuel Systems and Environmental Protection, Dublin, Ireland, July 6-9, 2004.
44. “ A New Trend for Natural Gas Storage, II- Accessibility of Adsorbed Natural Gas for Use in Gas-Fuelled Vehicles”, Ibid.
45. “Local Resources and Engineering as Resorts against Automotive Emissions”, Submitted and published in 2nd. International Conference on Chemical and Environmental Engineering, Military Technical College, Cairo, Egypt , 24- 25 Nov., 2004.
46. “Solar Detoxification of Industrial Wastewater Streams”, Presented and published in the 3rd. Minia International Conference for Advanced Trends in Engineering, Faculty of Engineering, El- Minia University, El- Minia , Egypt, 3-5 April, 2005.

47. "Modeling of Slurry Bubble Columns for Fischer- Tropsch Synthesis, Part I: Software Development, Presented and Published in Proceedings of Minia International Conference, Towards a Safe and Clean Environment (Session A1), Minia University, Minia, Egypt, 15- 17 April, 2005.
48. "Modeling of Slurry Bubble Columns for Fischer Tropsch Synthesis, Part II: Model Application, Ibid (Session A1).
49. "Incineration as a Means for Solid Waste and Energy Management, Part I: Design of the Incinerator and Treatment of the Emissions, Ibid, (Session E2).
50. "Incineration as a Means for Solid Waste and Energy Management, Part II: Lime Treatment and Energy Recovery, Ibid. (Session E2).
51. "Oil Recovery from Oily Effluents by a Honey Combed Air Flotation Device", Ibid (Session E2).
52. "Adsorption of Heavy Metals from Industrial Wastes by Some Agricultural By-Products, Ibid (Session E2).
53. "Sonolysis: A Developed Technique for Wastewater Treatment, Ibid (Session E3).
54. "Solar Drying of Fruits in the Form of Powders", Presented and Published in the 2nd. Egyptian- Syrian Conference on Food and Agriculture, Homos, Syria, 25- 28 April, 2005.
55. "Advanced Processes in Treatment of Oily Wastewater", presented in Role of Engineering Towards Better Environment Conference, Alexandria University, Dec., 2006.
56. "Photocatalytic Degradation of Methylene Blue Dye by Photo- Fenton Technique: Effect of Operational Parameters and Catalyst Reuse", Bulletin of Faculty of Engineering, Minia University, Minia, Egypt, 2006.
57. "Comparison of Different Advanced Oxidation Processes for Methylene Blue Degradation", Bulletin of Faculty of Engineering, Minia University, Minia, Egypt, 2006.
58. "Production of biodegradable plastic from agricultural wastes" , First Minia International Conference on " Investment in Technology", Faculty of Engineering, Minia University, Minia, Egypt , 4-8 May, 2007.
59. "A local Indoor Design for an Automotive converter to prevent pollution by vehicles- Exhaust Gases, M. Zakaria Abdel Wahhab, Aghareed M. Tayeb and Eman A. M. Ashour , Ibid.
60. "A proposed Design for Removing and Recovery of petroleum Oil from oily pollutants using Solar Irradiation , Aghareed M. Tayeb, M. Zakaria Abdel Wahhab and Zienab Abd El-Wahhab Ahmed, Ibid.
61. "Exploitation of Fenton reagent as an alternative conditioner for Alum sludge conditioning, 2nd. International congress- Wastewater treatment in small communities, SmallWat07, Seville, Spain, 2007.
62. "Conditioning of Alum sludge with Fenton reagent and organic polymer: comparative study", 18th. Irish environmental researcher, Environ 2008, Dudalt, Ireland, 2008.

63. "Application of advanced oxidation processes for the treatment of wastewater effluent, Ibid.
- 64- "Exploitation of Fenton and Fenton- like reagents as alternative conditioner for alum sludge conditioning, J. of Environmental Sciences, DOI: 2008.01.047, Vol. 20, No. 11, 2008.
- 65- "Conditioning of alum- based water treatment sludge with Fenton reagent: Effectiveness and optimization study to improve dewaterability", Chemosphere, DOI: 10.1016/J. Chemosphere, 2008.03.
- 66- "Adsorptive Storage of Natural Gas in Vehicle Operation, Actual Test Run", 3rd. International Conference for Engineering Researches, National Research Center, Egypt, 24- 26 March, 2008.
67. Photo-catalytic degradation of an oil-water emulsion using the photo-Fenton treatment process: Effects and statistical optimization, **Journal of Environmental Science and Health**, Part. Publication details, including instructions for authors and subscription information:<http://www.informaworld.com/smpp/title~content=t713597268>