

Curriculum Vitae

Prof. Dr. Nagat Abd-Alla Mostafa El-Sordy

Chemical Engineering Department, Faculty of Engineering, Minia University, El-Minia, Egypt
Phone: +2 086-234-5173 Cell: +2 010-96114456 Email: dr_eng_hanem@yahoo.com

Education:

Ph.D., Chemical Engineering, Faculty of Engineering, Minia University, Egypt, 1990

Specialization: Chemical and Biochemical Engineering

Thesis Title: Studies on Kinetics of Biochemical Reactions

M.Sc., Chemical Engineering, Faculty of Engineering, Minia University, Egypt, 1984

Specialization : Chemical and Biochemical Engineering

Thesis Title: A Study on some New Energy Sources

B.Sc., Chemical Engineering, Faculty of Engineering, Alexandria University, Egypt, 1979

Experience:

- Professor of Chemical Engineering, 2001 – Present
Chemical Engineering Department, Faculty of Engineering, Minia University
- Professor of Chemistry, 2014 – 2015
Chemistry Department, Faculty of Science, Taif University, Saudi Arabia
- Professor of Chemistry, 2012 – 2014
Chemistry Department, Faculty of Applied Medical Science, Taif University, Saudi Arabia
- Head of Chemical Engineering Department, December 2005 – 2008
Faculty of Engineering, Minia University
- Founder and Supervisor of Biomedical Engineering Department March – December 2005
Faculty of Engineering, Minia University
- Associate Professor of Chemical Engineering, 1995 – 2001
Chemical Engineering Department, Faculty of Engineering, Minia University
- Lecturer of Chemical Engineering, 1990 – 1995
Chemical Engineering Department, Faculty of Engineering, Minia University
- Associate Lecturer of Chemical Engineering, 1985 – 1990
Faculty of Engineering, Minia University
- Demonstrator of Chemical Engineering, 1979 – 1985
Chemical Engineering Department, Faculty of Engineering, Minia University

Delivered Courses:

Undergraduate:

- Engineering of Biochemical Industries - Faculty of Engineering - Minia University
- Fundamentals of Biochemical Engineering - Faculty of Engineering - Minia University
- Engineering Chemistry - Faculty of Engineering - Minia University
- Elective course (Sugar industry) - Faculty of Engineering - Minia University
- Elective course (Semiconductors) - Faculty of Engineering - Minia University
- Foundations of chemical industries (Organic chemistry) - Faculty of Engineering - Minia University
- Solid State Chemistry and Materials - Faculty of Applied Medical Sciences - Taif University
- Chemical Thermodynamics - Faculty of Applied Medical Sciences - Taif University
- Chemistry of Instrumental Analysis - Faculty of Applied Medical Sciences - Taif University
- Chemistry of corrosion - Faculty of Applied Medical Sciences - Taif University
- Writing scientific reports - Faculty of Applied Medical Sciences - Taif University
- Methods of chromatographic separation - Faculty of Applied Medical Sciences - Taif University
- Chemistry of Spectral Analysis - Faculty of Applied Medical Sciences - Taif University
- Industrial Chemistry - Faculty of Science - Al-Hawiyah - Taif University

Postgraduate:

- Bio-based Chemicals Production - Faculty of Engineering - Minia University
- Different Methods for Wastewater Treatment - Faculty of Engineering - Minia University
- Advanced Biochemical Engineering - Faculty of Engineering - Minia University
- Food Microbiology - Faculty of Engineering - Minia University
- Biological Operations for Pollution Control - Faculty of Engineering - Minia University
- Design of Biological Pollution Control Equipment - Faculty of Engineering - Minia University
- Chemistry of New Materials - Faculty of Science - Al-Hawiyah - Taif University

Academic Supervision:

- PhD Thesis - Recycling edible oils from waste using sub-critical water technology - Faculty of Engineering - Minia University - June 2014
- PhD thesis - Biodegradation of oils and production of biologically surface-active substances from wastewater - Faculty of Engineering - Minia University - June 2012
- PhD thesis - A new technique for sterilization of water in swimming pools and storage tanks - Faculty of Engineering - Minia University - July 2012

- Master Thesis – Esterification of free fatty acids to produce oils using different ways - Faculty of Engineering - Minia University - March 2013
- Master Thesis – Lipid hydrolysis through biological methods - Faculty of Engineering - Minia University - March 2013
- Master Thesis - Comparative studies on the acid hydrolysis of cellulosic wastes - Faculty of Engineering - Minia University – 2007
- Master Thesis - Production of biologically surface-active substances from renewable resources - Faculty of Engineering - Minia University – 2005
- Master Thesis - Design of a unit for the treatment of liquid wastes from the carbohydrate industries - Faculty of Engineering - Minia University - 2001

Academic Reviewing:

PhD and Master Thesis:

- PhD Thesis - Development of an Integrated and Sustainable Process for Production of Oleochemicals - Faculty of Engineering - Minia University - September 2018
- PhD Thesis - Application of Cleaner Production Techniques in Dairy Industry - Institute of Environmental Studies and Research - Ain Shams University - May 2018
- PhD Thesis – Application of Biotechnology in Edible Oil Field - Faculty of Engineering - Minia University - October 2016
- PhD Thesis - Removal of Oils in Advanced Ways and Study Optimization - Faculty of Engineering - Minia University - June 2012
- PhD Thesis - Production of Bio-Protein using Engineered *E. Coli* in a Stirrer Bioreactor - Faculty of Engineering - Minia University - September 2001
- Master Thesis - Production and Characterization of Silicate Ceramics for Medical Applications - Faculty of Engineering - Minia University - July 2009
- Master Thesis – Biological removal of Sulfur from Petroleum Oil - Faculty of Engineering - Alexandria University - December 2007

Reviewer at International Academic Journals:

- International Journal of Materials Science and Applications
- BMC Microbiology
- International Biodeterioration & Biodegradation
- Journal of Basic and Applied Research International

Membership at the Supreme Council of Egyptian Universities to promote Associate Professors and Professors in the field of Chemical Engineering

Reviewer at the Supreme Council of Egyptian Universities to promote Associate Professors and Professors in the field of Chemical Engineering

Reviewer at Regional and National Academic Journals:

- Yanbu Journal of Engineering and Science, KSA
- Alexandria Engineering Journal, Egypt
- EL- Mansora Journal for Engineering Science, Egypt

Reviewer and Evaluator of Research Projects:

- Research Project, No. PD-127-35, entitled "*Effective Method for Producing Liquid and Gaseous Fuels from Agricultural Waste using Microfiber Catalysts*" submitted to the General Directorate for Research Grants, King Abdul-Aziz City for Science and Technology, KSA
- Research Project No. 34-362 entitled "*Environmentally Friendly Technology for Polluted Wastewater using the modified surface of date seeds*" submitted to the General Directorate for Research Grants, King Abdul-Aziz City for Science and Technology, KSA
- Research Project entitled "*Renewable energy production and environmental cleaning through recycling of agriculture wastes and production of furanics*" submitted to the Science and Technology Development Funds Authority, Academy of Scientific Research and Technology, Cairo, Egypt
- Research Project entitled "*A novel renewable energy-based system for wastewater reclamation*" submitted to the Science and Technology Development Funds Authority, Academy of Scientific Research and Technology, Cairo, Egypt

Professional Membership:

Member of Saudi Arabian International Chemical Sciences Chapter of American Chemical Society, KSA, 2011 – Present

Member of American Chemical Society, USA, 2010 – Present

Grants and Fellowships:

- Post- Doctor Fellowship in Chemical Engineering Department, Texas A&M University, USA, 1998
- Research work Grant from the Deanship of Scientific Research, Taif University, Kingdom of Saudi Arabia, 2013- 2015

Awards and Honors:

- 2019 Award for "Excellence in international scientific publishing" from Minia University, Egypt.
- 2015 Award for "Excellence in scientific publishing" from Taif University, Saudi Arabia

- 2014 Award for "Excellence in participation in university and community service activities" from Taif University, Saudi Arabia
- 2007 Award for "One of the Top 100 Scientists" from Universal Biography Center, Cambridge, UK
- 2007 Award for "One of the International Educators" from Universal Biography Center, Cambridge, UK
- 2001 Award for "Excellence in the development of innovation and invention in the field of environmental research" from Scientific Research and Technology Academy, Cairo, Egypt

Publications:

- A. M. Tayeb, I. A. Ashour and N. A. Mostafa, "Modeling as a Tool for Process Control: Alcoholic Fermentation", *J. Energy Conversion and Management*, 32(5), 491-497, 1991.
- H. M. Asfour, A. M. Tayeb and N. A. Mostafa, "Alcohol Production from Acid Hydrolysate of Akalona", *J. Energy Conversion and Management*, 32 (5), 499-504, 1991.
- A. M. Tayeb, H. M. Asfour, I. H. Aly and N. A. Mostafa, "Optimizing Energy Production from Agrowastes: A Case Study for Fermentation of Egyptian Beet Molasses", *J. Energy Conversion and Management*, 32 (5), 505-513, 1991.
- G. Zayed and N. A. Mostafa, "Studies on the Production and Kinetic Aspects of Single Cell Protein from Sugar Cane Bagasse Saccharified by *Aspergillus niger*", *J. Biomass and Bioenergy*, Pergamon Press Ltd, 3 (5), 363-367, 1992.
- N. A. Mostafa and H. M. Asfour, "Use of Local Vegetable Coal as an Activated Carbon", *Bulletin of the Faculty of Engineering and Technology, Minia University*, 13 (2), 168-185, 1994.
- N. A. Mostafa, "Utilization of Molasses and Akalona Hydrolysate for Glycerol Production Using A Local yeast (*Saccharomyces cerevisiae*)", *J Biomass and Bioenergy*, Elsevier Science Ltd, 8 (6), 427-431,1995.
- N. A. Mostafa, "Production of Lactic Acid from Whey with Agar Immobilized Cells in a Continuous Packed Tubular Reactor", *J. Energy Conversion and Management*, Elsevier Science Ltd, 37 (3), 253-260, 1996.
- N. A. Mostafa, "Kinetic Studies on Glycerol Production from Molasses and Akalona Hydrolysate", *J. Energy Conversion and Management*, Elsevier Science Ltd, 38 (14), 1445-1449, 1997.
- N. A. Mostafa and Yehia H. Magdy, "Utilization of Molasses and Akalona Hydrolysate for Continuous Glycerol Production in a Packed Bed Bio-Reactor", *J. Energy Conversion and Management*, Elsevier Science Ltd, 39 (7), 671-677, 1998.
- N. A. Mostafa, "Production and Recovery of Volatile Fatty Acids from Fermentation Broth ", *J. Energy Conversion and Management*, Elsevier Science Ltd, 40, 1543-1553, 1999.
- N. A. Mostafa, Hassanin M. Asfour, Aghareed M. Tayeb and N. M. El-Zahed, "Nutrients Recovery from Effluents of Starch Industry", *Proceeding of the 10th International Conference (Environmental Protection is A Must)*, pp. 6-15, Alexandria, 9-11 May, 2000.
- N. A. Mostafa, Rada M. Abdelmnm and M. T. Holtzapple "Production of Acetic Acid and Volatile Fatty Acids from Lime-Pretreated Bagasse /Chicken Manure", *Alexandria Engineering Journal*, 39 (5), 815-826, 2000.

- N. A. Mostafa, "Biosorption of Heavy Metals Using a Local Strain of *Saccharomyces cerevisiae* Immobilized in Ca-alginate", Proceeding of the 3rd International Conference (Environmental Integration for a New Millennium), pp. 339-350, Alexandria, 18-20 November, 2000.
- N. A. Mostafa, "Glycerol Production from Cellulosic Biomass: 1. High Efficient Production from Acid Hydrolyzate", Proceeding of the 3rd International Conference (Environmental Integration for a New Millennium), pp. 249-258, Alexandria, 18-20 November, 2000.
- H. M. Asfour and N. A. Mostafa, "Water Reclamation of a Color Polluted Effluent", Proceeding of the 3rd International Conference (Environmental Integration for a New Millennium), pp. 511-544, Alexandria, 18-20 November, 2000.
- N. A. Mostafa, "Production of Acetic Acid and Glycerol from Salted and Dried Whey in a Membrane Cell Recycle Bioreactor", Energy Conversion and Management, Elsevier Science Ltd, 42, 1133-1142, 2001.
- N. A. Mostafa and F. S. Ali, "Comparative Study of Separated Fermentations and Co-fermentation Processes to Produce Glycerol and Acetic Acid from Bagasse and Sawdust Derived Hydrolysate", Proceeding of the 4th International Conference on Role of Engineering Towards a Better Environment, pp. 135-145, Alexandria, 21-23 December, 2002.
- Piyarat Thanakoses, Nagat Abd Alla Mostafa, and Mark T. Holtzapple, "Conversion of Sugarcane Bagasse to Carboxylic Acids Using a Mixed Culture of Mesophilic Microorganisms", Applied Biochemistry and Biotechnology, 106 – 108, 523 – 546, 2003.
- N. A. Mostafa, U. A. Gabra, S. Malter, and K. G. Enan, "Production of Rhamnolipid Biosurfactant from Effluents of Petroleum Industry", Proceeding of the 3rd Minia International Conference for Advanced Trends in Engineering, Minia, 3-5 April, 2005.
- N. A. Mostafa, and K.G. Enan, "Production of Rhamnolipid Biosurfactant from Waste Vegetable Oil", Proceeding of the 6th International Conference (Nature Inspired Innovations towards a Sustainable Environment), Alexandria, 16-18 December, 2006.
- N. A. Mostafa , R. M. Abdelmonem, Asma A. El-Sattar and A. M. Monazie, "Optimization Studies on Acid Hydrolysis of Cellulosic Wastes", Proceeding of the 1st International Conference on Material Science & Nanotechnology, NRC-Cairo, Egypt, December 2-4, 2007.
- Aghareed M. Tayeb, N. A. Mostafa and I. A. Ashour, "Modeling as a Tool for Controlling the Production of Biofuels: Ethanol from Biomass", The 2011 International Conference on Bioinformatics and computational Biology, BIOCAMP'11, USA, July 18-21, 2011
- N. A. Mostafa , R. M. Abdelmonem and A. M. Monazie, " Kinetic and Optimization Studies on Acid Hydrolysis of Cellulosic Wastes ", Proceeding of the 2nd International Laboratory Technology Conference & Exhibition, Doha, Qatar, October 8-12, 2011.
- N.A. Mostafa and A. M. Monazie, "Novel Biomaterial: Preparation of Antimicrobial Composite Material by Immobilization of Living Yeast Cells with Copper Ions in Natural Polymer", International Conference in Material Science and its Application, Taif University, Saudi Arabia, 12-15 Feb 2012.
- N. A. Mostafa, Aghareed M. Tayeb and O. A. Mohamed, "Biodegradation of Oily Effluents of Petroleum Industry and Production of Biosurfactant I- Effect of Initial Oil

Concentration”, 6th International Conference on Chemical & Environmental Engineering, Military Technical College, 29-31 May, 2012.

- N. A. Mostafa, Wael Abdelmoez and Ahmed Mustafa, "Utilization of Agro-industrial Residues in the Production of Lipase", 1st International Water-Biotech Conference, National Research Center, Cairo, Egypt, 9-11 October, 2012.
- N. A. Mostafa, Wael Abdelmoez and Ashraf Maher, "Esterification of Waste Fatty Acids from Vegetable Oil and Tallow Industry with Glycerol and Production of Mono-glyceride, Di-glyceride and Triglycerides", 1st International Water-Biotech Conference, National Research Center, Cairo, Egypt, 9-11 October, 2012.
- Wael Abdelmoez, N. A. Mostafa and Ahmed Mustafa, "Utilization of Oleo chemical Industry Residues as Substrate for Lipase Production for Enzymatic Sunflower Oil Hydrolysis", *J. Cleaner Production*, 59, 290-297, 2013.
- N. A. Mostafa, Ashraf Maher and Wael Abdelmoez, "Production of mono-, di-, and triglycerides from Waste Fatty Acids through Esterification of with Glycerol", *Advances in Bioscience and Biotechnology*, 4, 900 -907, 2013.
- Rehab Abdel Fattah, N. A. Mostafa, Mohamed S. Mahmoud, Wael Abdelmoez, "Recovery of Oil and Free Fatty Acids from Spent Bleaching Earth using Sub-critical Water Technology Supported with Kinetic and Thermodynamic Study", *Advances in Bioscience and Biotechnology*, 5, 261-272, 2014.
- Rehab Abdel Fattah, N. A. Mostafa, Mohamed S. Mahmoud, Wael Abdelmoez, "Spent Bleaching Earth Treatment in a Pilot Scale Tubular Reactor using Subcritical Water Technology", 7th International Conference on Chemical & Environmental Engineering, Military Technical College, 27 - 29 May, 2014.
- N. A. Mostafa, "Production of Volatile Fatty Acids (VFA) by Anaerobic Digestion of Rice Straw/Cow Dung Mix in Batch and Fed-Batch Process", *Yanbu Journal of Engineering and Science*, 8, 28-34, 2014.
- Hala M. Abo-Dief, N.A. Mostafa, Eman Alzahrani, and Ashraf T. Mohamed, "An Innovated Method of H₂S Elimination from KSA Crude Oil Using Chitosan/Nano Activated Carbon/Iron Oxide Composite", *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 7 (4), 2999-3007, 2016.
- N. A. Mostafa, Aghareed T., Sabah M., Aml A., Amany F., Fatma I., "Utilization of Biomass for the Production of Cellulose Acetate", 10th International Conference "Role of Engineering Towards A Better Environment RETBE'17, Alexandria, Egypt, 18 – 20 December, 2017.
- N.A. Mostafa, Awatef A. Farag, Hala M. Abo-dief, Aghareed M. Tayeb, "Production of Biodegradable Plastic from Agricultural Wastes", *Arabian Journal of Chemistry*, open access ([http:// dx.doi.org/ 10.1016/j.arabjc.2015.04.008](http://dx.doi.org/10.1016/j.arabjc.2015.04.008)), 11, 546–553, 2018.
- N. A. Mostafa, Aghareed M. Tayeb, O. A. Mohamed, Rania Farouq, "Biodegradation of Petroleum Oily Effluents and Production of Biosurfactant: Effect of Initial Oil Concentration", *Journal of Surfactants and Detergents*, DOI 10.1002/jsde.12240 in press, 2019.