

# Curriculum Vitae

## Personal Information:

**Full Name:** Ahmad Mohamed Abdelmottaleb Mazen  
**Last:** Mazen  
**First Name:** Ahmad  
**Date of Birth:** First day of June, 1954 (01-06-1954)  
**Nationality:** Egyptian



## Contact:

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## Education and Degrees:

- **Bachelor of Sciences (B. Sc):**  
in Botany, from Assiut University, Assiut, Egypt in May, 1976 with the general estimate "Very Good"
- **Masters Of Sciences (M. Sc.):**  
in Botany (Plant Physiology), from Assiut University, Assiut, Egypt with the general estimate "Distinction"
- **Doctor of Philosophy (PhD):**  
in Botany (Plant Physiology), from Washington State University, USA with the general GPA 3.9/4.

## Master of Sciences degree (M. Sc.)

**University conferring the degree:** Assiut University, Assiut, EGYPT  
**Date Earned:** September 16 th, 1981  
**Discipline:** M. Sc. (Botany)  
**Subject area:** Plant Physiology  
**Title:** Water Relations of Some Plants Under Saline Conditions

## Doctoral degree (Ph. D)

**University conferring the degree:** Washington State University, Pullman, USA  
**Date Earned:** May 6 th, 1989  
**Discipline:** Ph.D (Botany)  
**Subject area:** Plant Physiology  
**Title:** Ultrastructural and Biochemical Studies on Formation of Calcium Oxalate in Plants

## Postdoctoral work:

- (15/6/1989 - 31/8/1989) Research postdoctoral associate in Agronomy Department of Iowa State University, working in a project studying the molecular bases of the resistance toward the herbicide Triazine expressed by some weeds.
- (1/9/1989 – 31/3/1990) Visiting Scientist to USDA (Department of Agriculture of USA) Research Station in Beltsville, Maryland, USA. to continue work on the same project

started in Iowa State University Agronomy Department (Then I had to return to EGYPT to have a University staff member position.

### **Administrative positions,**

During the period from 28/8/2007 to 31/10/2009, I have been the Vice dean for the Community Service Affairs of the Faculty of Sciences at Sohag University. This position did not prevent me from following my research work and other academic activities. In this position, I was responsible for connecting research funding agencies and different community areas in Sohag (With certain Problem) to the different research laboratories in my Faculty.

### **Positions held and periods of appointment**

- Research and Teaching Assistant in Botany Department, Faculty of Sciences at Sohag, University of Assiut.
- Assistant Lecturer in Botany Department, Faculty of Sciences at Sohag, University of Assiut.
- Lecturer (Assistant Professor From 08/04/1990 -- Till 24/10/1998)
- Assistant Professor (Associate Professor) (25/10/1998 -- 30/5/2004)
- Professor (Full Professor) Since 31/5/2004 – 30/5/2014)
- Emeritus professor (1/6/2014 – Until the end of life)

### **Membership in Professional Societies:**

- *American Society of Plant Physiologists*
- *Scandinavian Society for Plant Physiology*
- *Union of Arab Biologists*
- *Egyptian association of Botanists*
- *American Association for the Advancement of Sciences*

### **Conferences, Meetings and workshops Attended:**

- The Annual meeting of the American and Canadian Society of Plant Physiologists (Providence, RI, USA), Summer 1985.
- The Annual meeting of the American Society of Plant Physiologists (Reno, NV, USA) Summer, 1988.
- The Annual meeting of the American Society of Weed Scientists (Monterial, Canada) Winter, 1988.
- The first international Anglo-Egyptian conference on Biotechnology, Alexandria University, Alexandria, Egypt, November, 1991.
- Invited speaker to lecture on "the physiological and biological significance of Ca oxalate formation in plants" in the workshop held by Botany Department of Assiut Faculty of Sciences, Assiut University, March 1991.
- The Egyptian National Conference on the problems of the Nile River plant "the water hyacinth *Eichornia crassipes*" held in Assiut University, Assiut Egypt, 25-26 February, 1992.
- Trainer and lecturer in the training workshop on "The Training Workshop on Sample Preparation for and Use of Electron Microscopy" held in Qatar University, Doha, Qatar, December 1993.
- Member of the organization committee of the first international conference on the "Arabian Gulf Environment", held in Qatar University, Doha, Qatar, during 7-9 May 1994, I shared also with a research paper.
- The workshop on "The Food Safety and Man Health" held by the Qatari Ministry of Health, Doha, Qatar during the period 10-12 December 1994.

- Trainer and lecturer in the training workshop on "The Training Workshop on Sample Preparation for and Use of Electron Microscopy" held in Qatar University, Doha, Qatar, March, 1995.
- Trainer and lecturer in the training workshop on "Plant cell, tissue and organ culture and its applications" held in Qatar University, Doha, Qatar, 18-20 of March, 1997.
- Trainer and lecturer in the training workshop on "Tissue culture of Date Palm trees" held in cooperation between the Qatari Ministry of Agriculture and the Arabian Agency for Agricultural Development, Doha, Qatar, 3-8 of May, 1997.
- Trainer and lecturer in the training workshop on "Using Internet in teaching science" held for the Qatari Ministry of Education Teachers of Sciences, held by University of Qatar, Doha, Qatar, October, 1998.
- Lecturing in the Workshop held in University of Qatar on the "Benefits and Risks of Using Sewage Sludge in Agriculture" Doha, Qatar, December, 1998.
- Lecturing on the role of the water hyacinth plant *Eichornia crassipes* as biomonitor and bioremediator of water pollutants in the Workshop on "Pollution of Water Resources and the strategies of pollution monitoring" held by the Center of Research and Studies for the development of the South of the Valley, held in Assiut University during the period 24-25 February 2001.
- The first international conference on "Safe Alternatives of Pesticides for Pest Management", Assiut University, Assiut, Egypt, during the period 28-29 October, 2001.
- The Second international conference on "The Advances in the Biological Sciences", Tanta University, Tanta, Egypt, during the period 27-28 April, 2002.
- The Tenth international conference of "Arabian Biologists", Merqeb University, Khoms, Libya, during the period 4-9 October 2003.
- The first international conference on "Safe Environment", South Valley University, Qena, Egypt, during the period 6-9 April, 2005.
- Trainee in the training programs held by Sohag University, to train Faculty Members on "Administrative and Official Affairs for the University Academic leaders" during 2006.
- Trainee in the training program held by the Egyptian Ministry of Higher Education to become a Trainer, held in Cairo University, Cairo, Egypt during the period 21-24 April 2007.
- Trainer and Lecturer in the Training Workshops on "Writing and Publishing Research Papers" Being held by Sohag University (within a project to Develop the abilities of Faculty Members. Since 2005. (6 times a year)
- Trainer and Lecturer in the Training courses on "Using Computer in Research and Teaching" Being held by Sohag University to train University Faculty Members. Since 2005.
- Lecturer and session administrator in the fifth International Conference of Egyptian Society of Biotechnology and Environmental Sciences, held in Sedi Mohamed Bin AbdAllah, Fas, Morocco, during the period 18-24 November, 2007,
- Head of the organizing committee of the first international conference held in Sohag University during the period 18-19/11/2008, on "Bioremediation of environment in the Arabic and developing countries".
- Lecturer and session administrator in the 6<sup>th</sup> international conference on "The Advances in the Biological Sciences", Tanta University, Tanta, Egypt, during the period 10-11 November, 2010. My lecture was on "physiological and ultrastructural studies on calcium oxalate crystal formation in some plants".
- The international workshop held in Istanbul, Turkey (11-17 July, 2012) on "Health and Environmental Problems confronting the Mediterranean countries".
- The 12<sup>th</sup> international conference of Egyptian soil science society held with Faculty of Agriculture of University of Ismailia during period 7-9 March 2016.

- 3<sup>rd</sup> International Conference on Biotechnology Applications in Agriculture (ICBAA), Moshtohor and Sharn El-Shiekh, 5-9 April 2016, Faculty of Agriculture, Benha University, Egypt.
- The first annual scientific conference of Faculty of sciences of Sohag University, April 2016.

### **Courses I taught or developed:**

Prepared and developed Plant Physiology (all levels), Plant Cell Biology, Plant Biochemistry and General Botany courses as electronic interactive lecturers using Computer.

### **Supervision of Masters and PhD Students:**

#### **Currently:**

As the principal advisor, I am supervising the doctorate program of two students and the Master degree program of one student .

#### **Previously:**

Finished five Master (M.Sc.) and four Doctorate (Ph.D) theses as the principal advisor.

### **Theses Examiner:**

Around 12 theses as both internal (supervisor) and external (invited from other universities

### **Postdoctoral researchers who are currently or have been collaborating with the applicant in the research group (names, years).**

I have been in research collaboration with the following colleagues in corresponding dates

- El-Farash, E.M., and El-Enany (1993)
- El-Enani, A.E. (1994 and 1996)
- El Maghraby, O.M.O. (1998)
- Hassanien, A.M. (2001)
- Hassanein, A.M. and Galal, A.A. (2003)
- El-Enany, A.E. (2003)
- Fayza, A.F. and Gamalat A. (2005)

#### **Currently:**

Fayza, A.F and Deia, S. (collaborating wit me in a research project to study Calcium oxalate formation and function in plants)

### **Extracurricular activities:**

Head or member of the following committees:

- Several Higher Education Development committees in Qatar and Egyptian Universities
- Laboratories.
- Electron Microscopy.
- Library.
- Graduate studies and Research.
- Community Serving.
- Continuous Learning.
- Preparation of the agricultural sciences program to be administered in the biology department in Qatar University

### **Academic Leaves to other international Academic Organizations:**

- I left for a sabbatical leave to **Botany department, Faculty of Sciences, Qatar University, State of Qatar** (Assistant Professor) for teaching, research and all other extracurricular activities during the period 20/9/1993 – 30/6/2000 (as Visiting professor and then as full academic staff member in Qatar University).
- **Institu fur Allgemeine Botanik und Pflanzenphysiologie Friedrich-Schiller-Universität, Jena, Germany** - in a research project (From the German DFG) to study of effects of infection of two Egyptian Plants by the endophytic fungus *Piriformospora indica* on the improvement of their physiological and biochemical processes, growth and stress tolerance.
- **Department of Botany, Stockholm University, Sweden** (From The Swedish MENA) in planning and outlining a research project on the “ROLE OF CALCIUM OXALATE CRYSTAL FORMATION FOR METAL ACCUMULATION IN PLANTS”
- I was invited as a visiting professor for an academic year by **Botany department, Faculty of Sciences, Zawya University, Libya** - for teaching, research and all other extracurricular activities during the period 20/9/2009 – 30/7/2010.
- **Institute of Pharmacy. Graz University, Austria** (within an Erasmus Mundus Eumetalic2 fellowship) for two months (October and November, 2014) to conduct a collaborative research project with professor Bauer Rudolf, in a research project to study " the elicitation potential of the fungus *Piriformospora indica* on the enhancement of antimicrobial and antioxidant capacities of extracts from tissues or established hairy root cultures of the tooth brush plant *Salvadora persica L*".
- **Institute of Pharmacy. Graz University, Austria** (within an Erasmus Mundus Eumetalic2 fellowship) for two more months (September and October, 2016) to conduct a collaborative research project with professor Bauer Rudolf, in a research project to extract and phytochemically Identify the bioactive natural compounds that impart the tooth brush SWAK plant (*Salvadora persica*) its known medicinal value.
- **Institute of Biology and Ecology, Faculty of Science, Pavol Jozef Šafárik University in Košice, Slovakia** (within a scholarship provided by the Slovak Academic Information Agency (SAIA) within for three months (August 1, 2017 and ending on October 31, 2017) to conduct a collaborative research project with professor Eva Čellárová, DSc., in a research project to study the bioelicitation potential of the Fungus *Periformospora indica* on the production of the anticancer compound *hypericin* in the *in vitro* cultures of genetically transformed *Hypericum perforatum*. Trials on production of the hairy roots of other medicinally important plants was also conducted. Anticarcinogenicity of extracts from *Salvadora persica*, *Diploaxis harra* and *Eruca sativa* was also started during this trip.

## REFERENCES. (persons whom might be contacted as references about me)

1. PROFESSOR DR. OSMAN MOHAMAD OSMAN ELMAGHRABY (THE EXDEAN OF THE FACULTY OF SCIENCE, SOHAG UNIVERSITY, SOHAG, EGYPT) , HIS EMAIL IS: [osmanelmaghraby@yahoo.com](mailto:osmanelmaghraby@yahoo.com)
2. PROFESSOR DR. AHMED YAHYA ABDUL MALIEK (EX DEAN OF FACULTY OF SCIENCES, ASSIUT UNIVERSITY, ASSIUT, EGYPT AND CURRENTLY IS THE PROFESSOR IN BOTANY DEPART MENT, IN UM AL QURA UNIV, MEKKAH, SAUDIA ARABIA) , HIS EMAIL IS: [yehyamalek2@yahoo.com](mailto:yehyamalek2@yahoo.com)

3. PROFESSOR Dr. EED DARWISH (HEAD OF PHYSICS DEPARTMENT, FACULTY OF APPLIED SCIENCES, Taiba University, Madinah Munawwarah, KINGDOM OF SAUDIA ARABIA. HIS EMAIL IS: [eeddarwish@yahoo.com](mailto:eeddarwish@yahoo.com))
4. PROFESSOR Dr. AHMAD MOHAMAD ABDEL RAHEEM ( THE HEAD OF THE BOTANY DEPARTMENT, FACULTY OF SCIENCES, SOHAG UNIVERSITY, SOHAG, EGYPT) , HIS EMAIL IS: [a.abdel-raheem@lycos.com](mailto:a.abdel-raheem@lycos.com)
5. PROFESSOR Dr. ABDEL WAHAB ALENANY (PROFESSOR OF PLANT PHYSIOLOGY, FACULTY OF SCIENCES, ASSYOUT UNIVERSITY, ASSYIOUT, EGYPT). , HIS EMAIL IS: [enany2003@yahoo.com](mailto:enany2003@yahoo.com)

## Publications:

### Books:

- **Published:** "*Physiology of Auxines in Plants*"  
Registered in The Egyptian House of Book under the Registration Number 10692/1998, ISBN : " 977-19-6674-X".
- **In Preparation:** "Calcium oxalate crystal formation in plants"
- **In Preparation:** Electronic book "Plant Physiology"

### Published Research Papers

**El-Sharkawi, H.M, Salama, F.M. and Mazen, A.A (1986)** *Chlorophyll Response to Salinity, Sodidity and Heat stresses in Cotton, Rama and Millet*. Photosynthetica 20(2):204-211.

**El-Sharkawi, H.M, Salama, F.M. and Mazen, A.A (1986)** *Ionic and Hydrative Adjustment to Salinity and Sodidity Stresses in Some Crop Plants*. Egypt. J. Bot. 29/30 # 1-3: 107-115.

**Mazen, A.M.A. and Franceschi, V.R. (1988)** *Ultrastructural and Cytochemical Studies On Calcium Oxalate Formation in Lemna minor L*. Plant Physiology.Vol 86 (4) : 97\3. "Annual meeting of American Plant Physiologists" In 1988 at Reno, Nevada, USA.

**El-Farash, E.M., El-Enany, A.E. and Mazen, A.M.A. (1993)** *Influence Of Genotype and NaCl On The Levels Of Growth, Proteins, Proline, Free Amino Acids, Viability And Protein Regulation In Tomato Callus Cultures*. Assiut J. Agric. Sci. Vol. 24:3. . (1993)

**El-Enani, A.E. and Mazen, A.M.A. (1994)** *Isolation of Cd-Binding Protein Of water Hyacinth (Eichornia crassipes) In Nile River*. Bull. Fac. Sci., Assiut Univ. 33 (1-D) :85-94.

**Mazen, A.M.A. (1995)** *Assessment Of Heavy Metal Accumulation And Performance Of Some Physiological Parameters In Zea mays L.And Vicia faba L. Grown On Soil Amended By Sewage Sludge Resulting From Sewage Water Treatment In State Of Qatar*. Qatar Univ. Sci. J. 15 (2) : 353 359.

**El-Enani, A.E. and Mazen, A.M.A. (1996)** *Isolation Of Cd-Binding Protein Of water Hyacinth (Eichornia crassipes) Grown In Nile River water*. Water, Air and Soil Pollution 87: 357-362.

**Mazen, A.M.A. (1996)** *Crassulacean-Acid-Metabolism Criteria Shown By Three Species From Flora Of Qatar*. Photosynthetica 32 (1): 37 44.

**Mazen, A.M.A. (1996)** *Changes in levels of Phosphoenolpyruvate carboxylase with induction of Crassulacean Acid Metabolism (CAM)-Like behavior in the C4 plant Portulaca oleracea L*. Physiologia Plantarum 98: 111- 116.

- Mazen, A.M.A. and El Maghraby, O.M.O. (1998)** Accumulation of Cadmium , Lead, and Strontium, and a role of calcium oxalate in water hyacinth tolerance. *Biologia plantarum* 40/3: 411-417.
- Mazen, A.M.A. (2000)** Changes in properties of phosphate pyruvate carboxylase with induction of Crassulacean Acid Metabolism (CAM) in the C4 plant *Portulaca oleracea*. *PHOTOSYNTHETICA* 38 (3): 385-391.
- Mazen, A.M.A. (2000)** Formation of Ca Oxalate crystals in leaves and calli of *Hibiscus Subdariffa* in relation to Ca availability in growth medium. *BULL. FAC.SCI.,ASSIUT UNIV.* 29(2-D). 313- 323
- Hassanien, A.M. and Mazen, A.M.A. (2001)** Adventitious bud formation in *Alhagi graecorum*. *Plant cell Tissue and Organ Culture*. 65 31-35.
- El-Enany, A.E. and Mazen, A.M.A (2003)** Protective effect of organic and inorganic sulfur compounds on the cytotoxicity of cadmium in soybean callus culture. *Bull. Fac. Sci, Assiut Univ.*, 32(1D). 31-39.
- Mazen, A.M.A (2003)** Heavy metal accumulation and physiological consequences in selected food plants grown on sewage sludge amended-soil. *Arab Gulf J. sci. Res.*, 21(3):140-147.
- Mazen, A.M.A., Hassanein, A.M. and Galal, A.A. (2003)** Somatic embryogenesis and plant regeneration from callus cultures of karkade (*Hibiscus sabdariffa* L.). *J. Union Arab Biol. Cairo. (Cytoigenetics, Ecology, Taxonomy)* 13b: 13-26.
- Mazen AMA, Zhang D, and Franceschi VR. (2003)** Calcium oxalate formation in *Lemna minor* L.: physiological and ultrastructural aspects of high capacity calcium sequestration. *New Phytologist* 161: 435–448.
- Mazen, A.M.A (2004)** Accumulation of four metals in tissues of *Corchorus olitorius* and possible mechanisms of their tolerance. *Biol. Plant.*, 48(2): 267-272.
- Mazen, A.M.A (2004)** Calcium Oxalate Deposits in Leaves of *Corchorus olitorius* as Related to Accumulation of Toxic Metals' *Russ. J. Pl. Physiol*, 51(2): 281-285.
- Fayza, A.F.; Gamalat, A.A. and Mazen, A.M.A. (2005)** Alleviation of disease effect on tomato plants by heat shock and salicylic acid infected with *Alternaria solani*. *Int. J. Agri. Biol.* 7(5) 783-789.
- Mazen, A.M.A.; Fayza, A. F. and Atef F. A. (2010)** Study of Potential Impacts of Using Sewage Sludge in the Amendment of Desert Reclaimed Soil on Wheat and Jews Mallow Plants. *Int. J. Brazilian Archives of Biol. and Tech.* 53 (4) 917-930.
- Mazen, A.M., Radwan, D.M. and Abo-Derb, A.F.A. (2011):** Assessment the effects of some hydrogels on the physico-chemical properties of sandy soil under reclamation. *Egypt. J. of Appl. Sci.*, 26 (6): 189- 208.
- Mazen A. M., El Sayed M. Soltan, Marwa M. Farghali and Aly E. Abo Amer (2011):** Lannate biodegradation ability of some bacteria isolated from Sohag Governorate, (Egypt). *Sohag Bulletin of Pure and Applied Science (SBPAS)*. (14).
- Mazen, A.M., Radwan, D.M. and Abo-Derb, A.F.A. (2012):** Growth response of maize plants cultivated in sandy soil amended by different superabsorbant hydrogels. *Egypt. J. of Appl. Sci.*, 26 (6): 209- 225.

- Mazen A. M., El Sayed M. S., Farghali M. M. and Abo Amer A. E. (2012):** Isolation and characterization of organophosphorus lannate-degrading bacteria isolated from lannate-polluted soils at Sohag Governorate (Egypt). *Sohag Bulletin of Pure and Applied Science (SBPAS)*. (14).
- Faheed, F. A., Mazen A. M., and Abd El Mohsen S. (2013)** Physiological and ultrastructural studies on calcium oxalate crystal formation in some plants. *Turk. J. Bot.*, **37**: 139-152.
- Mazen, A.M., Radwan, D.M. and Abo-Derb, A.F.A. (2013):** Conditioning Effect of Different Absorbant Polymers on Physical and Chemical Properties of Sandy Soil. *Journal of Functional and Environmental Botany*. Volume 3, Number 2, November, 2013, 82-93
- Mazen A.M.A., El Maghraby O.M.O. and Ebaid S.A. (2014):** The Physiological effects of *Piriformospora indica* on some crop plants. A- Effects on growth and physiological performance. *J. Env. Studies [JES]*. 13: 95-106
- Mazen A.M.A., El Maghraby O.M.O. and Ebaid S.A. (2014):** The Physiological effects of *Piriformospora indica* on some crop plants. B- Alleviation effects on stress by Salinity. *J. Env. Studies [JES]*. 13: 79-93.
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