

**Doctor Amal Mahmoud Youssef Moustafa  
Chemistry Department, Faculty of Science  
Suez Canal University**

**Curriculum Vitae**

**Personal Data**

**Family Name:** Mahmoud Youssef Moustafa

**First Name:** Amal

**Birth date and Place:** 24/11/1966- Ismailia- Egypt

**Nationality:** Egyptian

**Martial Status:** Single

**Title:** Doctor

**Present Position:** Lecturer in Organic Chemistry (Phytochemistry- Chemistry of Natural Products).

**Organization:** Chemistry Department-Faculty of Science- Suez Canal University, Ismailia- Egypt.

**Address:** Chemistry Department-Faculty of Science- Suez Canal University.

**Tel. Home:** 202-064-3214678, 202-066-3727487

**Mobile Phone:** 010-7488306

**E-Mail:** [moustafaamm@yahoo.com](mailto:moustafaamm@yahoo.com)

**Scientific graduation and certificate**

**1. The Bachelor degree in Science (B. Sc.):**

(Chemistry, from 1984 to 1988-May), faculty of science- Suez canal university, Ismailia- Egypt.

**2. The Master degree in chemistry (M.Sc.):**

(Phytochemistry- chemistry of natural products- organic chemistry, from 1992 to 11-9-1995), faculty of science- Suez canal university, Ismailia- Egypt. Title of M.Sc. thesis: "Studies on the chemical constituents of some medicinal and toxic plants".

### **3. The Degree of Philosophy of Science (Ph.D.):**

(Phytochemistry- chemistry of natural products- organic chemistry, from 1996 to 10-28-2001), faculty of Science- Suez canal university, Ismailia- Egypt. Title of Ph.D. thesis: "Isolation and Structure Determination of Active Ingredients of Certain Plant from Asclepiadaceae family".

### **Professional Graduation**

**Researcher Student:** Chemistry department, faculty of Science- Suez canal university, Ismailia- Egypt, 6-5-1989.

**Demonstrator:** Chemistry Department, Faculty of Science- Suez Canal University, Ismailia- Egypt, 5-14-1994.

**Assistant Lecturer:** Chemistry Department, Faculty of Science- Suez Canal University, Chemistry Department, Faculty of Science- Suez Canal University, Ismailia- Egypt, Ismailia- Egypt, 1-25-1996.

**Lecturer:** Chemistry Department, Faculty of Science- Suez Canal University, Ismailia- Egypt, 1-21-2002.

### **Education**

#### **Undergraduate Courses:**

Natural Products, Phytochemistry, Chromatography, Biochemistry, General Organic Chemistry, General Inorganic Chemistry, Physical chemistry, Heterocyclic Compounds, Stereo-chemistry, Reaction Mechanism, Spectroscopy, Analytical Chemistry, Nuclear Chemistry, Cement, Corrosion, Unit Operation, Physical Organic Chemistry, Polymer, Botany, Zoology, Geology, Mathematics, English Language, Islamic Philosophy.

#### **Postgraduate Courses:**

Natural Products, Phytochemistry, Chromatography, Biochemistry, Pharmacology, Toxicology, Physiology, General Organic Chemistry, General Inorganic Chemistry, Physical Chemistry, Heterocyclic Compounds, Stereo-chemistry, Reaction Mechanism, Spectroscopy, Physical Organic Chemistry, English Language.

### **Teaching Experience**

- Good command in Arabic and English language.

- Good user of IBM personal computer (word, power point, excel, Photoshop, Chemoffice, ACD lab, and other chemical programs, SPSS,...).

## Teaching Courses

### Theoretical Courses:

- **Biochemistry**, (lipids-carbohydrates-proteins), in English language, for third year students` (biology sections and chemistry students), faculty of science-Suez canal university, Ismailia- Egypt, 2002, 2003, 2004.
- **Biochemistry**, (lipids-carbohydrates-proteins), in Arabic language, for second year students (house economy section), faculty of education- Suez canal university, Ismailia- Egypt, 2004.
- **Natural Products**, (in Arabic language), for third year students (chemistry and physics section), faculty of education, 2003, and for fourth year students, faculty of science, king Faisal university, 2007-2009.
- **Chromatography**, (in Arabic language), for third year students (chemistry and physics section), faculty of education, 2003.
- **Enzymology**, (in English language), for third year students (Microbiology Section), faculty of science- suez canal university, 2003.
- **Aliphatic Organic Chemistry**, (in Arabic language), for first year students (chemistry and physics section), faculty of education, 2003, 2004, and for fourth year students, faculty of science, king Faisal university, 2007-2009.
- **Petroleum**, (in English and Arabic languages), for diplomatic and third year of chemistry students, faculty of science, 2006 and for fourth year students, faculty of science, king Faisal university, 2007-2009.
- **Polymer**, (in Arabic languages), for fourth year students, faculty of science, king Faisal university, 2007-2009.

**Practical Courses:**

- **Biochemistry**, (lipids-carbohydrates-proteins), in English language, for third year students (biology sections and chemistry students), faculty of Science- Suez canal university, Ismailia- Egypt, 1994, 2002, 2003, 2004.
- **Biochemistry**, (lipids-carbohydrates-proteins), in Arabic language, for second year students (House Economy section), faculty of Education- Suez canal university, Ismailia- Egypt, 2004.
- **Natural Products**, (in English language), for fourth year students (chemistry section), faculty of Science, 1992-1995, 2001-2004.
- **Natural Products**, (in Arabic language), for third year students (chemistry and physics section), faculty of Education, 2003.
- **Chromatography**, (in English language), for third year students (chemistry section), faculty of Science, 1992-1995, 2001-2004.
- **Chromatography**, (in Arabic language), for third year students (chemistry and physics section), faculty of Education, 2002, 2003.
- **Enzymology**, (in English language), for third year Students (microbiology section), faculty of Science- Suez canal university, 2003.
- **Preparation of Organic Chemistry**, (in English language), for fourth year students (chemistry section), faculty of Science, 2003 and for fourth year students, faculty of science, king Faisal university, 2007-2009.
- **Preparation of Organic Chemistry**, (in Arabic language), for fourth year students (chemistry and physics section), faculty of Education, 2004.

- **Mixture of Organic Chemistry**, (in English language), for second year students (chemistry section), faculty of Science, 1992-1995, 2003.
- **Mixture of Organic Chemistry**, (in Arabic language), for second year students (biology section), faculty of Science, 2005.
- **Simple Salts of Organic Chemistry**, (in English language), for Preliminary students`, faculty of Pharmacy and faculty of Dentistry, 2002-2005, and for first year students, faculty of Science (chemistry, biology and geology sections) 1992-1995 and for fourth year students, faculty of science, king Faisal university, 2007-2009.
- **Simple Salts of Organic Chemistry**, (in Arabic language), for first year students (chemistry and physics section), faculty of Education, 2003, 2004 and for first year students (mathematics section), faculty of Education, 2005.
- **Simple Salts of Organic Chemistry**, (in Arabic language), for first year students, faculty of Agriculture, 1992-1994.
- **Analytical Chemistry**, (in English language), for Preliminary students, faculty of Veterinary, 1993-1995.

## Research Experience

- Investigation of Flavonoids from Plants (isolation and structural elucidation).
- Investigation of Alkaloids and Amines from Plants (isolation and structural elucidation).
- Investigation of Cardiac Glycosides from Plants (isolation and structural elucidation).
- Investigation of Lipids (Steroids- Triterpenes-Fatty acids) from Plants (isolation and structural elucidation).
- Determination of LD<sub>50</sub> (Lethal Dose) using:

1. **a.** Method of Behrens and Karper (1953). **b.** Calculated by Lichfield and Wilcoxon procedure (1949). **c.** Brine Shrimp Method.
2. Determination of anti-tumor using Potato- disc method.

## Research and Technical Experiences

- Investigation of Flavonoids from Plants (isolation and structural elucidation).
  - Investigation of Alkaloids and Amines from Plants (isolation and structural elucidation).
  - Investigation of Cardiac Glycosides from Plants (isolation and structural elucidation).
  - Investigation of Lipids (Steroids- Triterpenes-Fatty acids) from Plants (isolation and structural elucidation).
  - Determination of LD<sub>50</sub> (Lethal Dose) using:
3. **a.** Method of Behrens and Karper (1953). **b.** Calculated by Lichfield and Wilcoxon procedure (1949). **c.** Brine Shrimp Method.
  4. Determination of anti-tumor using Potato- disc method.
  5. The operation Process of GC/MSD-FTIR, Gas Liquid Chromatography/ Flame Ionization Detector (FID) and Electron Capture Detector (ECD), High Pressure Liquid Chromatography-Diode Array (HPLC- Diode Array), Ultra-violet Spectroscopy (UV) and Infra-Red spectroscopy (IR), Nuclear Magnetic Resonance (<sup>1</sup>H NMR, <sup>13</sup>C NMR (DEPT), Two-dimensional NMR (COSY, NOESY, HETCOR).

## Awards

- **Governmental Scholarship for Ph.D.**, in Environmental Chemistry and Toxicology Laboratory, Texas, Texas Southern University, Houston, Texas, USA, for two years 1997-1999.

- **Personal Post-Doctorate Scholarship**, in HEJ-Research Institute of Chemistry, Karachi University, Karachi, Pakistan, for Seven months from 8-13-2004 to 3-17-2005.
- Faculty of science, king Faisal university, 2007-2009.

## **Project Participation**

•Project between Suez Canal University (Chemistry Department, faculty of Science) and National Research Center (Chemistry of Medicinal Plants section).

Title: Exploitation and Evaluation of Medicinal and Wild Plants Growing in Sinai, 1992-1995.

## **University and Department Services**

- Head of Checking Committee of Chemical Store, July 2001.
- Head of Checking Committee of Chemicals, 2001, 2002, 2003, 2004, 2005.
- Member in the Technical and Purchasing Committee, 2004.
- Member in the Students` Caravan to Sharm El-sheikh, Sinai, July 2003.
- I will be a member in the Students` Caravan to El-Arish, Sinai, July 2005.

## **Training Periods**

- Discovery of existence of Drugs in Biological Fluids form, National Research center, Giza, Egypt, January 17-28, 1993.
- The Instrumental Analysis Workshop, [The operation Process of GC/MSD-FTIR, Gas Liquid Chromatography/ Flame Ionization Detector (FID) and Electron Capture Detector (ECD), High Pressure Liquid Chromatography (HPLC), Ultra-violet Spectroscopy (UV) and Infra-Red spectroscopy (IR)], Toxicology and Microanalytical Research Division, Suez Canal University, Ismailia, Egypt, under the supervision of the university of Medicine & Dentistry of New Jersey, New Jersey Medical School (UMD), USA, May 16-30, 1993.
- Pre-Toefl 1, English language, Course of 30 hours, Ismailia language & Computer Center, August 27 to October 24, 1996.

- Introduction to Electronic Tables (Excel), Computer Center & Knowledge Technology, Ismailia government, Ismailia, Egypt, January 20 to February 1, 1996.
- Institutional Toefl Exam, Amideast, Cairo, Egypt, August 4, 1997.
- The operation Process of GC/MSD-FTIR, Gas Liquid Chromatography/ Flame Ionization Detector (FID) and Electron Capture Detector (ECD), High Pressure Liquid Chromatography-Diode Array (HPLC- Diode Array), Ultra-violet Spectroscopy (UV) and Infra-Red spectroscopy (IR), in Environmental Chemistry and Toxicology Laboratory, Texas, Texas Southern University, Houston, Texas, USA.
- The operation Process of Nuclear Magnetic Resonance ( $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR (DEPT), Two-dimensional NMR (COSY), Houston University, Houston, Texas, USA, 1998.
- The operation Process of Nuclear Magnetic Resonance ( $^1\text{H}$  NMR), HEJ-institute of chemistry, Karachi university, Karachi, Pakistan, 2005.

### **Service to the Academic committee**

- Member of the Egyptian Society of Toxicology.
- Member of the Egyptian Society of Natural Toxins.
- Member of the International Congress of the Medical Division.
- Member of the Staff-members of Egyptian Universities.
- Member of the Staff-members of Suez Canal University.

### **Thesis Supervision**

- Ph.D. thesis (2002-2008) at Zoology Department, Faculty of Science, Ismailia.



## Conferences Participation

- The 101<sup>st</sup> Annual Meeting of the Texas Academy of Science, The University of Texas at Tyler, Tyler, Texas, March 5-7, 1998.
- The 102<sup>nd</sup> Annual Meeting of the Texas Academy of Science, Texas Lutheran university, Seguin, Texas, March 4-6, 1999.
- The 18<sup>th</sup> annual Scientific Conference of the Egyptian Society of Toxicology, Cairo Egypt, September 25-26, 2002.
- Marine Natural Products, Studies on their Discovery, Biosynthesis, Pharmacology and Utility, A workshop sponsored by the Joint Science and Technology Fund of USA-Egypt Partnership for Economic Growth and Development, Ismailia, Egypt, December 10-11, 2002.
- The 1<sup>st</sup> Annual International Congress of the Medical Division, National Research Center, Cairo, Egypt, December 18-20<sup>th</sup>, 2002.
- Egyptian Society of Natural Toxins, Suez Canal University, Ismailia, October 19, 2003.
- The 19<sup>th</sup> Annual Scientific Conference of the Egyptian Society of Toxicology, Alexandria, February 18-19, 2004.
- Bio Vision Alexandria 2004-Egypt, April 3-6, 2004.
- The 5<sup>th</sup> International & 15<sup>th</sup> National Chemistry Conference, organized by The Chemical Society of Pakistan and Department of Chemistry, Quaid-I-Azam University, Islamabad, Pakistan, November 24-27, 2004.

## Papers, which are introduced in a scientific conferences

- Mahmoud Saleh, Ahmed I. Khodair, Faiza M. Hammouda, Fakher-El-Shahed, Alaa Kamel and **Amal M. Moustafa\***, Environmental Chemistry and Toxicology Laboratory, Texas Southern University, Houston, Texas, USA, Cardiac Glycosides from *Leptadenia*

- pyrotechnica*, The 101<sup>st</sup> Annual Meeting of the Texas Academy of Science, The University of Texas at Tyler, Tyler, Texas, March 5-7, 1998.
- **Amal M. Moustafa\***, Ahmed I. Khodair, Faiza M. Hammouda, Fakher-El-Shahed, Alaa Kamel and Mahmoud Saleh, department of chemistry, Texas Southern University, Houston, Texas, USA, Investigation of the Flavonoids of *Leptadenia pyrotechnica*, The 102<sup>nd</sup> Annual Meeting of the Texas Academy of Science, Texas Lutheran university, Seguin, Texas, March 4-6, 1999.
  - **Amal M. Moustafa\***, Ahmed I. Khodair, Faiza M. Hammouda, Fakher-El-Shahed, Hussein A. Hussein, Alaa Kamel and Mahmoud Saleh, department of chemistry, Texas Southern University, Houston, Texas, USA, Investigation of the Lipids of *Leptadenia pyrotechnica*, The 102<sup>nd</sup> Annual Meeting of the Texas Academy of Science, Texas Lutheran university, Seguin, Texas, March 4-6, 1999.
  - **Amal M. Moustafa\***, Ahmed I. Khodair, Faiza M. Hammouda, Hussein A. Hussein, Phytochemical and Toxicological Studies of *Zygophyllum album* L. F., The 19<sup>th</sup> Annual Scientific Conference of the Egyptian Society of Toxicology, Alexandria, February 18-19, 2004.
  - **Amal M. Moustafa\***, M. Iqbal Choudhary, Volatile Oil Composition and Bioassay Activity of *Schinus terebinthifolius*, The 5<sup>th</sup> International & 15<sup>th</sup> National Chemistry Conference, organized by The Chemical Society of Pakistan and Department of Chemistry, Quaid-I-Azam University, Islamabad, Pakistan, November 24-27, 2004.

## Publications

1. Sherifa H. Ahmed, **Amal M. Youssef Moustafa**, Zohour I Nabil, Aida A. Hussein and Mohamed Alaa A. Omran (2004): Effect of aerial parts extracts of *Calotropis procera* on different muscles activity (in vitro Study), the 19<sup>th</sup> Annual Meeting of the Egyptian Society of Toxicology, Alexandria, February 18-19, page 71-90.

2. Simon F. Kouam, Shamsun Nahar Khan, Karsten Kron, Bonaventure T. Nagadjui, Deccaux G. W. F. Kapche, Diane B.Yapna, Seema Zareem, **Amal M. Y. Moustafa**, and M. Iqbal Choudhary (2006):  $\alpha$ -Glucosidase inhibitory anthranols, kenganthranols A-C, from the stem bark of *Harungana madagascariensis*. *Journal of Natural products* 69 (2): 229 -233.
3. Zohour I Nabil, Aida A. Hussein, **Amal M. Youssef Moustafa**, Sherifa H. Ahmed and Mohamed Alaa A. Omran (2006): Assessment of the therapeutic effect of *Calotropis procera* extract and Digoxin on myocardial pathophysiology, an experimental study. *Egyptian Journal of Natural Toxins* 3: 51-76.
4. **Amal M. Youssef Moustafa**, Simeon F Kouam, Aisha Kulsoom, Asma Ejaz and Shamsheer Ali, Shazia Anjum and M. Iqbal Choudhary (2007): Phytochemical investigation and biological evaluation of *Schinus terebinthifolius*. *Research Journal of Phytochemistry* 1 (1): 1-11.
5. **Amal M. Youssef Moustafa**, Ahmed I. Khodair, Faiza M. Hammouda, and Hussein A. Hussein (2007): Phytochemical investigation and  $\alpha$ -cellulose content of *Gazania splendens* MOORE. *Research Journal of Phytochemistry* 1 (1): 21-32.
6. **Amal M. Youssef Moustafa**, Ahmed I. Khodair, Faiza M. Hammouda, Hussein A. Hussein (2007): Phytochemical and toxicological studies of *Zygophyllum album* L. F. *Journal of Pharmacology and Toxicology* 2 (3): 220-237.
7. **Amal M. Youssef Moustafa**, (2007): Chemical composition and antifungal activity of essential oil from *Schinus terebinthifolius* of Egyptian origin. *Journal of Essential Oil Therapeutic* 1: 91-95.
8. **Amal M. Youssef Moustafa**, Ahmed Ismail Khodair and Mahmoud A. Saleh (2007): Phytochemical investigation and toxicological studies of lipid constituents isolated from *Leptadenia pyrotechnica*. *Journal of Toxicology and Pharmacology* 2(8): 681-697.

9. **Amal M. Youssef Moustafa**, Jehan A. El-Shoubaky, Essam Abd E. Salem (2008): Comparative phytochemical investigation of hydrocarbons content on some marine seaweeds algae. *Research Journal of Phytochemistry* 2 (1): 10-17.
10. Jehan A. El-Shoubaky, **Amal M. Youssef Moustafa**, and Essam Abd E. Salem (2008): Comparative phytochemical investigation of beneficial essential fatty acids on a variety of marine seaweeds algae. *Research Journal of Phytochemistry* 2 (1): 18-26.
11. **Amal M. Youssef Moustafa**, Ahmed I. Khodair, and Mahmoud A. Saleh (2009): Isolation, structural elucidation of flavonoid constituents from *Leptadenia pyrotechnica* and evaluation of their toxicity and antitumor activity. *Pharmaceutical Biology* 47(6): 539-552.
12. **Amal M. Youssef Moustafa**, Ahmed Ismail Khodair and Mahmoud Ahmed I. Khodair, and Mahmoud A. Saleh (2009): Structural elucidation and evaluation of toxicity and antitumor activity of cardiac glycosides isolated from *Leptadenia pyrotechnica*. *Pharmaceutical Biology* 47(9): 826-834.
13. **Amal M. Youssef Moustafa**, Ahmed I. Khodair, and Mahmoud A. Saleh (2009): GC-MS investigation and toxicological evaluation of alkaloids from *Leptadenia pyrotechnica*. *Pharmaceutical Biology* 47(10): 994-1003.
14. **A.M.Y. Moustafa**, S.H. Ahmed, Z.I. Nabil, A.A. Hussein, M.A. Omran (2010): Extraction and phytochemical investigation of *Calotropis procera*: Effect of plant extracts on the activity of diverse muscles (*in vitro* study). *Pharmaceutical Biology* 48(10): 1080-1090.
15. **Amal M. Youssef Moustafa**, Ahmed I. Khodair, and Mahmoud A. Saleh (2011): Potato Disc Bioassay and Cytotoxic Effect of *Leptadenia pyrotechnica*: Comparative study of diverse extracts *Pakistan Journal of Biological Sciences* 14(18): 882-886.