

Curriculum Vitae

1. Personal Data:

- 1.1 Name: Elmubarak Elsiddig Elamin
- 1.2 Nationality: Sudanese
- 1.3 Date of birth: 20/9/1948
- 1.4 Place of birth: Alkadaru, Khartoum North, Sudan
- 1.5 Marital Status: Married
- 1.6 Phone: + 249-122118095 – E-mail : mubelamin76@gmail.com

2. Education:

- 2.1 BSc. Chemical Engineering (specialty: Pharmaceutical Preparations) , Higher Institute of chemical Technology, Sofia, Bulgaria, 1976 , corresponding to the MSc. (Chemistry) of the English Universities (see attached certificate).
- 2.2 MSc. (Applied Chemistry and Chemical Technology), University of Gezira. Wad Madani, Sudan, 1994
- 2.3 PhD. (Chemistry of Natural Products), Al-Neelain University, Khartoum, Sudan, 2006.

3. Languages:

- 3.1 Arabic (Mother tongue).
- 3.2 English (Toefl 1980) (score 550).
- 3.3 Bulgarian (University Education Language).
- 3.4 German
(Gründstufe Certificate, Goethe Institute, Khartoum 1979. Mittelstufe 1B, Grafing Ebersberg , München, Germany , 1980).

4. Career Status and Post:

- 4.1 Associate Professor
- 4.2 Researcher , Chemical Industries Department , Industrial Research & Consultancy Centre, IRCC, Khartoum (1977 – 1995).
- 4.3 Head Section, Pharmaceutical Industries, Industrial Research & Consultancy Centre, IRCC, Khartoum (1996-2007).
- 4.4 Head Chemical Industries Research Department, IRCC (2000-2004, 2006-2008).

4.5 Associate Professor, Faculty of Pharmacy, University of Science and Technology , Omdurman , Sudan (2009 - to date) (Certificate Attached).

4.6. Associate Professor , Pharmacy Program , Nile College , Khartoum , Sudan (on partial contract basis 2014 – to date) (Certificate Attached) .

5. Major Areas of Interest:

5.1 Chemistry of Natural Products (Phytochemistry)

5.2 Complementary and Alternative Medicine.

6. Experience:

6.1 I joined the Food Industries Department of IRCC in March 1977. The first research work I undertook was an applied project on the industrial utilization of *Balanites aegyptiaca* (Lalobe) Fruit. This project was a progeny of my graduation dissertation in 1976 (See item 8.1 below). The project was taken up to by IRCC in June 1977, and later financed by the United Nations Industrial Development Organization (UNIDO) 1980, UNIDO contract No. TF/INT/77/021

6.2 In 1979 I participated in a study to investigate the possibility of converting local alcoholic beverage factories into industrial and medical alcoholic factories.

6.3 In 1981 participated in preparation of sixth Draft Final Report in Utilization of *Balanites aegyptiaca* fruit. UNIDO contract No. 80/108.

6.4 In 1984 I was appointed by IRCC administration as head of the Food Industries Department Laboratories for the period 1984-1989

6.5 In 1985 I supervised two B.Sc. students from Ahfad University College in their graduation dissertation titled Investigation into the Nutritional Value of Tabaldi (*Adansonia digitata*) fruit.

6.6 In 1987 I was appointed by IRCC administration as a member of the “Research Council” for technical affairs for the period 1987-1990.

6.7 In 1987 I was elected by the researchers of IRCC as their representative in the IRCC Board of Directors

6.8 In 1988 I headed a team which prepared two technical reports on evaluation of the capacity of two local vegetable oil mills.

6.9 In 1988 I participated in preparation of a report titled "Elaboration of commercial *Balanites aegyptiaca* fruit Utilization Project, Survey and Report UNIDO contract No.86/108 ₪.

6.10 In 1988 I initiated a project for conversion of the Babanousa Dairy Plant into a Karkade (Roselle) Powder Plant, UNIDO Project No. US/SUD/88/266.

6.11 In 1989 I participated in preparation of Techno-Economic Feasibility Study titled " The Elaboration of a Commercial *Balanites aegyptiaca* Utilization Model Concept Ready for Implementation UNIDO project No. US/SUD/GLO 184/233. Draft Final Report ₪ .

6.12 In 1990 I headed a team which prepared the project proposal No. P. 90/35 titled "Conversion of Babanousa Dairy Plant into Karkade Powder Plant. UNIDO project No. US/SUD/88/266 ₪ (see item 6.10)

6.13 In 1990 I presented a paper in the Second Sudanese Oil-seed Symposium held at Wad Madani , organized jointly by University of Gezira and the Agricultural Research Corporation (ARC) titled : " Shea Butter : An Un-utilized valuable Resource of Southern Sudan ₪ .

6.14 In 1992 I prepared a report titled the "The Activities of Babanousa Plant for 1991/92 Season, Production of Karkade Clayces in Growing Areas in Sudan, and Selection of Alternative Places for Establishment of Additional Factories" (see item 6.12).

6.15 In 1993 I attended a three –week training course in Germany and Denmark in the frame of the project mentioned in item 6.12.

6.16 In 1994 I was awarded the M.SC degree in "Applied Chemistry and Chemical Technology by University of Gezira. The title of the thesis was "Investigation into the quality Determining Factors of Karkade, Roselle".

6.17 In December 1994 I transferred to pharmaceutical Industries Section of IRCC.

6.18 In 1995 I headed a team which prepared a techno-economic feasibility study for establishing a Gum-Arabic Processing Plant.

6.19 In 1997 I presented a paper titled “Extraction of Plant Products” in the symposium held by the Higher Council for Environment and Natural Resources (HCENR), Khartoum, within the activities of the “Support for Strategic Planning Process for Sustainable Development in Sudan. SUD/93/G81”

6.20 In 1996 I presented a paper titled “Utilization of Medicinal and Aromatic Plants in the Pharmaceutical Industry in the symposium held by the Medicinal and Aromatic Plants Research Institute (MAPRI), Khartoum.

6.21 In 1997 I presented a paper titled “Karkade (Rosselle) as a Source of Drugs and Pharmaceutical Necessities” in the conference held by the National Council for Research (NCR) on “ The Medicinal Plants and Herbs in the Arab World . 25-27 Nov. 1997 ”.

6.22 In 1999 I headed a team which prepared a techno-economic feasibility study for establishment of a drug factory.

6.23 In June 2000 I was appointed as head Chemical Industries Department, IRCC, Khartoum Sudan.

6.24 In July 2000 I prepared the final report on the one-year project executed by me, titled “Use of Plant Extracts of Essential Oils for Aromatic Purposes”. This project was selected as one of the four pioneer projects out of eighteen nationwide projects sponsored by UNDP; titled “Support to Strategic Planning Process Aiming at Environmentally Sustainable Development” Project SUD/93/G81. Capacity 21.

6.25 In February and October 2001 I organized two training courses for graduate students, titled “Chemistry, Extraction, and Analysis of Essential Oils”.

6.26 In May 2006 I was awarded the PhD degree in Chemistry of Natural Products by Al-Neelain University, Khartoum.

6.27 In July 2005 I presented a paper titled “Forests as a Source of Oils in the workshop organized by the National Forestry Corporation ”, Khartoum.

6.28 In November 2006 I presented a paper titled “Wild Plants as Sources for Industry” in the Symposium on “ Promising Wild Plant in the Arab World organized by the Ministry of Higher Education and Scientific Research, Khartoum (13-15 Nov. 2006) ” .

6.29 In July 2007 I delivered lectures in chromatography in the training course in “Chromatographic Separation Techniques” organized by the Sudanese Society for Young Scientists.

6.30 On Jan. 14th. 2008 I presented a paper titled “The uses of Gum Arabic the Food Industries” in the workshop on “The Local Uses of Gum Arabic” organized by the Gum Arabic Company, Khartoum.

6.31 On July 21, 2008 I presented a paper on “The Activities of the Industrial Research and Consultancy Centre (IRCC) on Natural Products” in the Symposium on Natural Products Research in Sudan & NAPRECA-Sudan 2nd Meeting organized by Faculty of Pharmacy. University of Science and Technology in Collaboration with NAPRECA.

6.32 On September 20th, I was retired to pension.

6.33 On March 1st, 2009 I joined the “Faculty of Pharmacy, Univ. Science and Technology, Omdurman where I am now a teaching - staff member.

6.34 On July 27th, 2010 I was selected by the Ministry of Industry as “Head National Committee for Follow-up of the Executive Program of Gum Arabic”.

6.35 In the period November 22-25th 2010 I participated in “the 12th International Symposium on Natural Products Chemistry” organized by the “International Centre for Chemical and Biological Sciences, University of Karachi, Karachi, Pakistan”

6.36 On November 26th 2010 I was selected as member of the COMSATS “Thematic Group on Natural Products Sciences”.

6.37 In 2012 I became founder-member of the Sudan Natural Products Organization.

6.38 In 2012 I became founder-member of the Sudan Moringa Council.

6.39 In 2012 I instructed a course on pharmacognosy at Faculty of Pharmacy, Ahfad University (see attached certificate).

6.40 In 2012 I instructed a course on chemistry of Natural Products at Faculty of Science and Technology, Omdurman Islamic University (see attached certificate).

6.41 In December 2013 I presented a paper titled “ Factors Influencing Essential Oil Yield and Composition of Six *Eucalyptus camaldulensis* Varieties ” in the 15th Symposium of the Natural Products Research Network for Eastern and Central Africa (NAPRECA) , held in Khartoum , Sudan (7-10th , December 2013) .

6.42 In May 2014 I presented a paper titled “Processing of Moringa Leaves” in the first symposium on Moringa held in Khartoum, Sudan.

6.43 In April 2015 I started teaching a course on “Complementary and Alternative Medicine” for 4th year pharmacy students at Nile College , Khartoum, Sudan .

6.44 In 2016 I started teaching a course on “Alkaloids” (Chemistry of Natural Products) for 4th year pharmacy students at Nile College, Khartoum, Sudan.

6.45 On March 23rd 2016 I presented a paper titled “ Value Addition from Medicinal and Aromatic Plants ” in the workshop on “Linking Sudanese Medicinal and Aromatic Plants Producers to the Global Market” Organized by the “ National Centre for Research” Khartoum , Sudan.

6.46 In 2016 I was selected as member of the committee formulated by the Ministry of Agriculture (Khartoum State) for production of natural pesticides from Neem tree products.

6.47 In May 2018 I was selected as member of the Board of Directors of the "Sudan Invention and Innovation Foundation" (under establishment) in charge of research and studies.

6.48 In July 2018 I was selected as member of the local counter- part committee of " Medicinal Plants and Pharmaceutical Industry " of the " Sudan – US Collaboration Forum on Higher Education and Scientific Research Organized Jointly by the Ministry of Higher Education and Scientific Research , Sudan and the Institute of International Education , United States of America " .

7. Routine Work:

7.1 I conducted many analytical laboratory experiments on Natural Products

7.2 I supervised and co-supervised many undergraduate and graduate students for BSc, MSc and PhD students in the area of Chemistry of Natural Products.

8. Publications:

8.1 Chemical study of fruits of *Balanites aegyptiaca* L. from Sudan " *Comptes rendu de la Academie bulgare des Sciences, Tome 30, No. 8, 1977, 1121-4.*

8.2 Chemical Study of Fruit of *Balanites aegyptiaca* L. the Lalobe fruit, Industry and development .Vol. 15, 1979, 24-36 (*Journal of the Industrial Research & Consultancy Centre, IRCC*).

8.3 Shea Butter. An Industrially Unutilized Valuable Resource of Southern Sudan.*Industry and Development.A special Issue, 1990, 16-26.*

8.4The industrial Utilization of *Balanites aegyptiaca* Fruits. (Accepted for the *International Symposium on Oil-seeds from Forestry Resources*) (*Oleasilva*) 1992. Bamako, Mali.

8.5 Karkade as a Source of Drugs and PharmaceuticalNecessities. *Proceedings of the Conference on the Medicinal Plants and Herbs in the Arab World, Nov 1997, 25-27.*

8.6 Characterization of Lipid Compounds in the Dried Fruits of *Xylopi aethiopica* Growing in Sudan .*Pakistan Journal of Nutrition* 8 (10) 2009, 1592-5.

8.7 Chemical Composition of the Essential Oil in dried fruits *Xylopi aethiopica* from Sudan. *Open Access Journal of Medicinal and Aromatic Plants* 1 (1) 2010, 24-8.

8.8 Chemical, Hematological and Histopathological Studies on the Fruit of *Luffa echinata* .*Industrial Research Journal*. Vol.1 (1) 2013, 1-13.

8.9 Variation in the Fruit Morphology of *Balanites aegyptiaca* L. in Abu Jibeiha Area, South Kordofan State. *Sudan Silva* 14 (1)2010, 27-33.

8.10 Constituents of Fruits and Leaves of *Croton zambesicus*, Muell. Arg. Growing in south Kordofan State. *Sudan J. for basic sciences* Vol.4.

8.11 Chemical , Hematological , and Histopathological , Studies of the fruit of *Luffa echinata* . *Industrial Research Journal* (*Journal of the Industrial and Consultancy , Khartoum , Sudan*). Vol.1,2013,1-13.

8,12 Factors influencing Essential Oil Yield and Composition of Six *Eucalyptus camaldulensis* Varieties. *15th Symposium of the Natural Products Research Network for Eastern and Central Africa (NAPRECA)*. 7-10th December 2013.

8.13 In vitro antifungal activity and GC/MS profiling of ten selected Sudanese essential oils against *Madurella mycetomatis* . The causative factor of black-grain mycetoma. 63rd Int. Congress of the Society for Medicinal Plant and Natural Product Research , 23rd – 27th August 2015, Budapest, Hungary.

8.14 The Effect of *Balanites aegyptiaca* (L.) Del. Fruit's Shape and Location on its Chemical Composition. *Advances in Ecological and Environmental Research* . Published Nov. 25th 2017 , 461- 473.

8.15 Metabolomic approach to tap the potential of essential oils against *Madurella mycetomatis* – one of the most neglected fungal infections. Abstract selected for electronic poster at the 20th Congress of the International Society for Human and Animal Mycology , 30 July 2018 , Amsterdam , the Netherlands.

Academic Activities:

I am currently teaching the following courses at the Faculty of Pharmacy, University of Science and Technology, Omdurman , and the Pharmacy Program of Nile College , Khartoum , Sudan :

- Chemistry of Natural Products (Phytochemistry)
- Chromatography
- Complementary and Alternative Medicine