**Dr. Mohamed Rahmtalla Elamin**

Associate Professor

AL IMAM MOHAMMED IBN SAUD ISLAMIC UNIVERSITY

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**PERSONAL INFORMATION**

Surname : Abu zaid

Given Names : Mohamed Rahmtalla Elamin Abu zaid

Date of Birth : January 1st 1961

Nationality : Sudanese

Marital Status: Married, and a father of a son and 4 daughters

**CAREER OBJECTIVES**

Teaching, as associate professor staff member at Sudan Academy of Science and a lecturer in many of the major Sudanese universities (University of Khartoum, and Sudan University of Science and Technology ) and as a part-time teaching assistant, lecturer general and analytical chemistry and supervisor .

A senior researcher in Mineral resources applied researches, analysis, ore estimation and extraction and as a Certified Chemist, where I can utilize my experience in Mineral Ore inspection and exploration , Evaluation of environmental hazards through oriented research, elemental identification methods, development of industrial processes at the Industrial Research and Consultancy Centre, Ministry of Science and Technology, Sudan .

**EXPERTIESE**

1. Teaching of General Chemistry courses, Analytical chemistry, Atomic and Molecular Spectroscopy, Industrial Chemistry Courses.
2. Research experience in industrial laboratory operating within a quality management system.
3. Experience in chemical analysis according to the standard methods.
4. Experience in using the instrumental chemical techniques and standard chemical reagents.
5. Research experience in mineral separation, analysis, evaluation and upgrading.
6. Training skills for students, young graduates, technical and industrial staff.
7. Clay separation techniques
8. Trona separation and purification and production of soda ash.
9. Industrial waste water treatment through chemical methods.
10. Industrial raw materials and finished products quality assurance.
11. Building materials and Cement analysis and quality control.

**ELIMENTARY EDUCATION**

1978-1981 Shendi High Secondary School, the River Nile State, Sudan.

1975-1978 El-Shagalwa Intermediate School, the River Nile State, Sudan.

1969-1975 El- Giblab Elimentary School, the River Nile State, Sudan.

**ACADEMIC QUALIFICATIONS**

2009 Ph.D (Chemistry: Analytical/Environmental): Sudan University of Science and Technology, Sudan.

1995 M.Sc (Chemistry: Solvent Extraction /Trace Metal Analysis): Khartoum

 University, Sudan.

1986 BSc (Hons.) (Chemistry): Faculty of Science , Khartoum University, Sudan.

**RESEARCH INTERESTS:**

 **(Minerals/ water and waste water assessment/Environment)**

1. Extraction of industrial soda ash from local trona ores.
2. Extraction and enhancement of Bentonite from local Montimorlinite clays.
3. Production of technical grade hydrated lime for sugar industry from local limestone deposits.
4. Production of low cost building material using Pozzolanic clays.
5. Cleaner production in industrial sector.
6. Industrial effluent evaluation and treatment.
7. Analytical chemical methods modification and validation and standardization.
8. Production of drugs from local plant natural products.
9. Evaluation of ground water quality.
10. Waste water assessment and treatment.

**EXPERTIESE & HIGHLIGHTS OF PROFESSIONAL QUALIFICATIONS**

1. Research experience in sampling, analysis and estimation of mineral ores.
2. Characterization of elements and minerals.
3. Quality assurance and control for the industrial products.
4. Expert in standardized chemical analysis
5. Expert in environmental hazards evaluation.
6. Skilled trainer in practical chemical methods of analysis for students and young graduates
7. Long experience of teaching in College/University classroom.
8. Supervising research for B.Sc. Degree and postgraduate levels.
9. Developing experience in chemical testing according to ISO: 17025 – 2005.
10. Proven working laboratory and field research skills.
11. Skills as a research team leader
12. Reviewing and testing the effect of scientific programs and personal performance.
13. Preparing scientific recommendations and suggestions for variable research problems.
14. Participating evidently in different conferences and many committees of academic , research and administrative functions.
15. Publishing considerable number of scientific papers.
16. Coordinator of ground water technology master program at Sudan Academy of Science.
17. Member of the Scientific committee of Engineering and Industrial Technologies Postgraduate Program, at Sudan Academy of Science.

**TRAINING COURSES**

1. Capability Building of Research and Technology Organizations in

ISO/IEC 17025 Standard, 12–30, 10, 2009 SIRIM Berhad, Shah Alam, Malaysia.

1. Calibration of Measuring Equipments, the Arab Centre for Managerial Training, Central petroleum laboratory, Khartoum, Sudan. 2006.
2. A Course in Statistical Analysis, IRCC, Khartoum, Sudan. 2006.
3. Capacity Building In Management of Research and Contract Projects, UNISCO and MOST, Khartoum, Sudan, 2002.
4. Preparation of Technical Reports, IRCC, Khartoum, Sudan. 2007.
5. Implementation of ISO/ IEC 17025 Standards to the Laboratories. Constructional and Environmental Laboratories Centre, Khartoum, 2008.
6. Projects Management Course, National Centre for Research, Khartoum, Sudan. 2008.
7. Planning and Management of Small Workshops, Modern Civil Institute, Omdurman, Sudan. 2004.
8. A Course on Remote Sensing and GIS Techniques, Remote Sensing Authority, MOST, Khartoum, Sudan. 2002.
9. A Training Period in Testing of Fuel and Petroleum Products, El-Obaied Refinery, El-Obaied, Sudan. 2002.
10. Industrial Emission Reduction Technologies for Developing Countries 2011, Beijing, China.
11. Presentation and Teaching Skills Training Course, Almuhet Centre for Training, 2011, Khartoum
12. Participating in a seminar on global climate change and emission reduction in developing countries - Beijing China 2011.

**EMPLOYMENT HISTORY & ACADEMIC POSITIONS**

**2009 – 2013:** Associate Professor of chemistry **-** at Sudan Academy of Science, Engineering and Industrial Technologies research program **Ministry of Science and technology**

2007 – **2013** : Lecturer of General Chemistry, Faculty of Hygiene and Health Science**,** University of Khartoum, Sudan.

2008 – **2013** : Lecturer of Atomic and Molecular Spectroscopy, Faculty of Science**,** Sudan University of Science and Technology.

2010 – **2012** : Lecturer of Industrial Chemistry , Faculty of Technology **,** Sudan University of Science and Technology.

2010 – 2012 : Lecturer of Atomic and Molecular Spectroscopy , Faculty of Technology**,** Sudan University of Science and Technology.

2003 – 2009: Assistant Professor, Industrial Research and Consultancy Centre – Sudan Academy of Science - Ministry of Science and Technology – Sudan.

1987-1996: Part-time teaching assistant faculty of science and Faculty of Education University of Khartoum, Sudan.

1991-1996: Part-time teaching assistant faculty of science University of Sudan for Science and Technology – Sudan.

1989 -1994: Research assistant, Industrial Research and Consultancy Centre – Ministry of Science and Technology – Sudan.

1994 -1996: Researcher, Industrial Research and Consultancy Centre – Ministry of Science and Technology – Sudan.

1994 -1996: Chemistry Lecturer, Faculty of Medicine, University of Bahr Elgazzal, Sudan,

1994 -1996: Chemistry Lecturer, Faculty of Veterinary, University of Bahr Elgazzal, Sudan,

**TEACHING EXPERIENCE**

***Teaching, course development and research supervising on the University level.***

1. Teaching in a College/University classrooms.
2. Performing on-the-job training to Industrial Sector Technicians.
3. Training of postgraduate students from the Academic Institutions.

4. Skilled trainer in practical chemical methods of analysis for students and young graduates.

***As Lecturer***

2009-2013 : Associate Professor of chemistry , Sudan Academy of Science, Ministry of science and technology, Sudan.

2007-2013: – part-time lecturer. University of Khartoum – Faculty of Hygiene and Environmental Science,

2007-2013 : part-time lecturer of Atomic and Molecular Spectroscopy –. Chemistry Department, Faculty of Science, University of Sudan for science and Technology, Sudan

1994-1996: Lecturer of chemistry – part-time lecturer. Faculty of Medicine, University of Bahr Elgazal, Republic of Sudan

1994-1996:Lecturer of chemistry – part-time lecturer. Faculty of Veterinary, University of Bahr Elgazal, Republic of Sudan

1994-1996: Lecturer of chemistry – part-time lecturer, Faculty of Radiotherapy and Radiochemistry, University of Sudan for science and Technology, Sudan.

***As Teaching Assistant***

1986-1991: Demonstrator of Practical Chemistry.

Faculty of Education , University of Khartoum, Republic of Sudan.

1988-1996 Senior Demonstrator of Practical Chemistry.

Faculty of Science , University of Khartoum, Republic of Sudan.

1992-1996 : Senior Demonstrator of Practical Chemistry.

Faculty of Science, University of Sudan for Science and Technology, Republic of Sudan.

1986-1996: Senior Demonstrator of Practical Chemistry.

Faculty of Science , University of Khartoum, Republic of Sudan.

1996 – 2001 Teacher of Chemistry, El-Ikhlas Higher School, Jeddah, Saudi Arabia.

**Consultancy Experiences:**

1992 – 1996: Consultant at Building and Road Research Institute, University of

Khartoum, Sudan.

2006 -2008: Consultant at Red Rock Mining Company, Industrial Military Board, Sudan.

2005 -2008: Consultant at Construction and Environmental Laboratories Centre,

 Ministry of Housing and Architectural Planning, Khartoum State, Sudan.

**Administrative Experiences:**

2009 – 2013 : Coordinator of ground water technology master program at Sudan Academy of Science. ministry of Science and Technology, Sudan.

1. – 2013 : Member of the Scientific committee of Engineering and Industrial Technologies Postgraduate Program, at Sudan Academy of Science.

2009 – 2012 : Head of Chemical Industries Researches Department , IRCC, M. of Sc. And Technology.

2002 – 2004: Head of Analytical Chemistry Section, Industrial Research and Consultancy Centre, ministry of Science and Technology, Sudan.

2002 – 2004: Head of Industrial Chemical Products Section, Industrial Research and Consultancy Centre, Ministry of Science and Technology, Sudan.

**WORKING LABORATORY SKILLS**

* Setting-up and obtaining results from controlled experiments.
* Obtaining accurate scientific measurements.
* Recording numerical and scientific data.
* Setting-up and arranging for demonstrations of chemical analysis apparatus.
* Utilizing different scientific instruments.
* Working with precision and accuracy on numerical data.
* Analyzing and appraising quantitative and qualitative data of scientific nature.

**REVIEWING AND TESTING**

* Assessing the quality Assurance Reports.
* Assessing personal performance.
* Administering written and practical tests for students and Laboratory Technicians.

**Experiences in Applied Mineral Researches:**

I am developing strong experience in the field of Applied Mineral Researches where state- of- the- art equipments were arising.

1. Developing and adapting different laboratory experiments in the field of Applied Mineral Researches
2. Extraction of minerals and metals on pilot scale levels.
3. Analysis of Metals and compounds using classical and instrumental techniques.
4. Sampling and ore estimation.

**Experiences in Natural Products Researches:**

1. Extraction and Identification of Biologically Active Substances from plant.
2. **Industrial Environment:**
3. Collection and preservation of industrial effluents in their primary sources.
4. Carrying field tests on environmentally toxic waste.
5. Performing standardized laboratory tests on industrial waste.
6. Evaluation of mine waste.

**ONGOING RESEARCH**

1. Designing and executing soda ash production pilot plant.
2. Enhancement of local Bentonite using natural polymers.
3. Production of building blocks from cane baggasse ash.
4. Production of low cost building materials from pozolanic clay.
5. Production of Magnesium chloride and Magnesium oxide from local Talc-Magnesite deposits to be used as special cement and a low cost building material .
6. Extraction of active materials from traditional medicinal plant to treat neglected diseases.

**THESES:**

1. **Elamin M. R.**  (2009). Characterization, Evaluation and Treatment of Ariab Mine Influenced Water. Ph.D. Thesis, University of Sudan for Science and Technology, Sudan.
2. **Elamin M. R.**  (1995). Preparation and Characterization of P- methoxy Substituted Aromatic N- Phenyl Hydrazine Ligands for Extraction of Uranium and Vanadium, Msc. Thesis, University of Khartoum , Republic of Sudan.
3. **Elamin M. R.**  (1986). Separation and Determination of Sugars from Kennana Molasses, Bsc. (Hons.) Thesis, University of Khartoum, Republic of Sudan.

**SUPERVISION:**

**Ph.D Level: abu bakr Taj Elsir Othman, 2013 - 2016**

M.Sc Level:

1. The impact of Waddafiaa Sewage Station on Groundwater Quality By : Hamza Elfatih Ahmed B.sc (honors) in Chemistry A Thesis Submitted to the Sudan Academy of science in fulfillment of the requirement for the degree of Master of science in Underground water Technology Supervisor : Dr Mohammed Rahmatalla 2013

2. Evaluation of Groundwater Samples from Dar Elsalam District- Bahry Locality- Khartoum state – Sudan, By : Nahla Mohammed Abu Elgaith, A Desertation Submitted in Partial Fulfillments fo the requerments of the Degree of Master in Groundwater Technology. Supervisor : Dr Mohammed Rahmatalla 2013

3. Activation of local Bentonite for the purification of Vegetable oil, 2008, Hiba Yousif, In partial fulfilment of Msc. Degree, University of Jazeera, Sudan.

4. Characterization and Treatment of Ceramic industrial waste, 2010, Fihr M. Ibrahim, Sudan Academy for Science, Sudan, In partial fulfilment of Msc. Degree in cleaner production.

5. Treatment of local bleaching earth deposits for cotton seed oil decolorization,2013 . Mawahib Abdalla , In partial fulfilment of Msc. Degree, University of Jazeera, Sudan.

**B.Sc Level:**

**1. characterization of Moringa Satisva plant leaves and oil,**

**2. Analysis of Essential oil from domestic Ecalyptus plants**

 3. Evaluation of some Elements in some Sudanese Rocks, 2012, In Partial fulfillment for the Requirements of the Degree of B. Sc (Honors) in Scientific Laborites Department (Chemistry). Prepared By: Othman M. Othman, Tasneem M. Nasr Eldien and Ruba H. Taj Eddien..

4. The Chemical constituents of Red Sea and Arabic Gulf Water and its Effects on the Physical Properties: 2012, By: Moayed Gamal, Iyman Izz Eddien and Mohamed Ali , In Partial fulfillment for the Requirements of the Degree of B. Sc (Honors) in Scientific Laboratories Department (Chemistry)

 5. Study of some groundwater samples from western Sudan, 2010, Wester Suliman, Hind Tarig. A Research Submitted to the Scientific Laboratories Department (Chemistry), College of Sciences, Sudan University of Science and Technology Khartoum, Sudan, In Partial fulfillment for the Requirements of the Degree of B. Sc (Honors) in Scientific Laborites Department (Chemistry, . Supervised By: Dr. Mohammed Rahamtalla

6.Pozzolana, August 2011, A Research Submitted to the Scientific Laboratories Department (Chemistry), College of Sciences, Sudan University of Science and Technology Khartoum, Sudan, In Partial fulfillment for the Requirements of the Degree of B. Sc (Honors) in Scientific Laboratories Department (Chemistry). Prepared By: . Amani Mohammed Zain Awad. . Israa Ismaiel Osman Khairey . . Tayseer Yahya . Supervised By: Dr. Mohammed Rahamtalla.

**EXAMINATION COMMITTEES:**

1.Internal examiner for PH.D student Amal Zyada Satti, : Utilization of Onion Oil as an Anti-oxidant for Vegetable oils, 2011. Sudan Academy of Science.

2. Internal examiner for MSc. student Nagwa Mohamed Ibrahim, : Estimation of Malathion Pesticide Residue in Tomatoes and Cucumber, 2012. Sudan Academy of Science.

**3. GC-MS Estimation and Exposure Levels of BTEXs Pollutants in the Ambient Air of Khartoum City , M.Sc Thesis by Dareen Ahmed Salih Idries, Sudan Academy of Science, 2013**

4 . Internal examiner for MSc. Gabir M. Evaluation of Industerial Laboratories Performance on Cleaner Production, M. Sc. Thesis , Sudan Academy of Science, 2013. By: Gabir M.

5. External Examiner of M.Sc thesis : Characterization of Xanthophylls from different parts of Hibiscus plant , by :………………………….. University of Jazeera, 2012.

 Publications

**a- Scientific papers:**

1. The Potential of Baobab (*Adansonia digitata* L.) Extracts as Biocontrol on the Growth and Aflatoxin Production by *Aspergillus flavus* and *A. parasiticus*

Saifeldin A. F. El-Nagerabi1, Abdulkadir E. Elshafie2, Suleiman S. AlKhanjari1, Saif N. Al-Bahry2 & Mohamed R. Elamin3 , Received: April 9, 2013 Accepted: May 12, 2013 Online Published: May 16, 2013 doi:10.5539/jfr.v2n3p93 URL: <http://dx.doi.org/10.5539/jfr.v2n3p93> **Abstract,** Journal of Food Research; Vol. 2, No. 3; 2013 ISSN 1927-0887 E-ISSN 1927-0895, Published by Canadian Center of Science and Education**.**

**2.** Biological activities of Boswellia sacra extracts on the growth and aflatoxins secretion of two aflatoxigenic species of Aspergillus species

Saifeldin A.F. El-Nagerabi a,\*, Abdulkadir E. Elshafie b, Suleiman S. AlKhanjari a,

Saif N. Al-Bahry b, Mohamed R. Elamin c, Food Control 34 (2013) 763e769, journal homepage: [www.elsevier.com/locate/foodcont](http://www.elsevier.com/locate/foodcont)

3. Ahlam Sir Elkhatim , Bushra Elnour. and Mohamed R. Elamin, 2013, Absorption of chromium from tannery waste water by some plant speies, Industrial Research Jornal , Vol .

**4. Mohamed R. Elamin and Mohamed E. Abd Elaziz. 2011. “TREATMENT ARIAB ACIDIC MINE-INFLUENCED WATER WITH SUDANESE TRONA DEPOSITS (ATROUN)” , Sudan Journal of Science and Technology, Des. 2012**

5. **Mohamed R. Elamin and Mohamed E. Abd Elaziz** , CHARACTERIZATION AND EVALUATION OF ACID MINE-INFLUENCED

WATER (MIW) OF ARIAB AREA GOLD MINES , Sudan Academy of Science Journal, Vol.1 No.(3) 2009

6. Improvement of Drilling Mud Properties of Umm Ali Area clays; Industrial Research Journal., vol. 5-No. (1)- 2007.

7. ARIAB ACIDIC MINE-INFLUENCED WATER (MIW): A waste to waste treatment , Industrial Research Journal., vol. 7- June 2009

8. **Production of Technical Grade Sodium Carbonate from Different Local Trona Ores ,**  Accepted for Publication July 2013, Industrial Research Journal. By: Fathia Oshaik1, Mohammed Rahmtalla2, Wafa Elameen3and Khansa Alnaow 4

9. THE STATUS OF IMPLEMENTING ISO /IEC 17025 AND LABORATORY ACCREDITATION IN SUDAN, A Country Paper, *Presented by: Dr. MOHAMED R. ELAMIN IN: Capability Building In Research Technology Organizations Workshop, Shah Alam , Malaysia.* October 2009

 10. Domestic Solid Waste Recycling Opportunities, “Conference of Experience Exchange between Localities in Domestic Solid Waste Recycling” Medani. March 2008. Sudan.

**b. Manuals and Guides:**

11. A Guide to Good Manufacturing Practice in Soap and Detergent Industry, Federal Ministry of Industry, Sudan, Under Publication, 2009

12. Chemical Laboratory Quality Manual of Industrial Research and Consultancy Center IRCC, December 2009.

13. Participant in preparation of a booklet chapter: Quality Assurance and Control of Food Material; Analysis of Elements in Food chapter, 2004.

14. Participant in preparation of a booklet chapter: Quality Assurance and Control of Soap , 2004.

 **Under Preparation**

1. CHEMICAL CHARACTERIZATION OF ECALYPTUS *Camaldulensis* *Spp* LEAVES AND ESSENTIAL OILS FROM KENNANA FORESTS

By: MOHAMED R. ELAMIN , ITMAD A. ELHASSAN AND RANIA Y. SAEED

2.The impact of Waddafiaa Sewage Station on Groundwater Quality , by : Hamza Elfatih and Mohamed Rahmtalla Elamin

3. Evaluation of Limestone Treatment of Acidic Mine Effuents at Ariab Mining Sites.

4. Production of Magnesium Chloride hexahydrate from localTalc – Magnesite Ore.

CONFERENCES:

1. The first Saudi international conference on crisis and disaster management , Al Imam Mohammed ibn Saud Islamic University , 2/11/ 1434 H, Riyadh , Kingdom of Saudi Arabia.

**REFERENCES**

Available upon request