

Curriculum Vitae

Name: Mohammed Ahmed Ali Omer
Birth date: Jan. 1, 1975, Kosti - Sudan.
Nationality: Sudanese.
M. Status: Married.
Religion: Islam.
E. Mail: mycandel2003@yahoo.com
alkajam@gmail.com



(School hood)

Primary: Alshatie Primary School, No. 7, Kosti.
Intermediate: Algawmeia Intermediate School, Kosti
Secondary: Kosti Aljadeeda Higher School (1990).

(Higher Education)

University: Sudan University of Science & Technology (SUST), College of Medical Radiologic Science, Khartoum – Sudan (1990- 1995).

(Qualifications)

- **Ph.D.** In Applied Radiation Physics, University Putra Malaysia (UPM-2007).
Research title: Radiation Synthesis and Characterization of Conducting Nanocomposites Polyaniline and Polyaniline/Silver nanoparticles.
- **M. Sc.** in Medical Radiation Physics (SUST, 2002).
- **B.Sc.** in Radiologic Instrumentation Technology, (SUST, 1998).
- **B.Sc.** in Radiotherapy & nuclear medicine Technology, (SUST, 1995).

(Training & Courses)

- **Training course in Quality Assurance of Radiation Therapy Equipment, 1st.** August – 25th. September 2007. At clinical Oncology Department University Malaya Medical center – Kuala Lumpur – Malaysia.
- **Training courses in Cancer patients care and treatment, 1st.** December 2007- 28th. February 2008. At clinical Oncology Department University Malaya Medical center – Kuala Lumpur – Malaysia.

- **Diploma** in Computer Maintenance & Operation, (Alhekma Institute, 2001).
- **Training Course** in X- ray Equipments, Quality Assurance and Environmental Radiation Protection (Sudan Atomic Energy Agency, 2001).
- **Training course** in Radiation & Nuclear Physics, (Imam Khomeini University for Health Science - Tehran – Iran 2000).
- **Training course** in Medical Physics, Radiation & Isotopes Center Khartoum (1998).

(Working Experience)

- Radiation Therapy Technologist at Radiation & Isotopes Center, Khartoum, since 1995 - 2003.
- Lecturer at Sudan University of Science & Technology, College of Medical Radiologic Sciences (Courses: Anatomy, Radiotherapy, Radiotherapy Planning, Radiobiology, Oncology, Radiation Protection, Physics/Nuclear Medicine Technique and Radiotherapy Physics) since 1996 - 2003.
- Medical Radiation Physicists at Radiation & Isotopes Center, Khartoum, since 1998 - 2003.
- Radiation Protection Manager (Sudan land environment) at Radiation & Isotopes Center, Khartoum, since 1998 - 2003.
- Supervisor for trainee students and practitioner of Medical physics, Sudan University of Science and Technology during 2001 – 2003.
- Part-timer lecturer at Alneelain University. Teaching applied medical physics in Khartoum – Sudan 2002.
- Head of Radiotherapy and Nuclear Medicine section at Sudan University of Science and technology during 2001 – 2003.
- Research consultant in the field of Nanocomposites Polymers Bio-, 1st. March 2008-30 May 2008. King Abdul Aziz City for science and Technology, Riyadh – Saudi Arabia.

Fields of Interest:

- Medical Physics and Medical engineering.
- Nanotechnology of Polymer and Polymer/Metal nanoparticles.
- Radiation Physics and Processing.
- Radiation Therapy and Nuclear Medicine.

Future Trends and Researches:***Medical Physics Field***

In the field of Medical Physics, I would like to conduct some works related to

- Physical diagnosis of cancer cells/silver nanoparticles using enhanced scattering Raman spectroscopy and Biological tissue characterization using enhanced x-ray fluorescence by silver nanoparticles.
- Biological sensors have been one of my interested researches as Polymer Nanocomposites for Biosensors Applications and Application of Polymer/Gel for Cancer Radiation Therapy Simulation and Planning.
- Radionuclide Applications in Nuclear Medicine (Diagnosis & Treatment) and Industrial/Environmental researches.

Physics and Engineering Field

Some other works related to

- Direct Methanol fuel cell Membrane (DMFCM), that can be prepared from cross-linked sulfonated conducting polymer and rechargeable ion batteries could be contemplated in my future works, in addition to
- Gas separation by using polymer membrane (**Zeolite/polymer, carbon/polymer Nanocomposites**) and conducting polymer nanocomposites such as (Polyaniline hydrochloride (PANI-HCl), Polyvinylidene Fluoride (PVDF), Polypyrrol and polyactelene in Polymer binder).

Physics and Environmental Field

The role of physics in Environmental research can be involved in some researches dealing with

- Determination of Radioactivity in Drinking Under-ground water in rural areas using IDA and related Cancer Diseases. Also
- Determination and Removal of Heavy Elementals Particles from Industrials Waste water and Populated Areas by Activated Carbon or Neutron Activation Analysis NAA is well interested to me in addition to
- Preparation of Conducting Polyaniline Coating by Radiation Technique for Anticorrosion of Materials.

Requirements

- **Chemicals compounds** based on the requirements of the experiments.
- **Well Equipped Lab with tools as** (Magnetic stirrers with control temperature, Magnetic Bars, Beakers (different sizes), Petri-dishes, distilled and de-ionized water source, vacuum drier, Vacuum Oven,
- **Equipments** as (Scanning Electron Microscopy, Transmission Electron Microscopy, Raman Spectroscopy, Infra red Spectroscopy, Ultra violet Spectroscopy, X-ray Diffraction, Electron Spin Resonance, LCR-meter, TLD-reader, Nuclear Reactor or Neutron Generator, DMFC test system, Radiation Experimental Source (γ -ray, electron beam) etc.

My Role in Researches

I could deal with all process and acquisition stages of the research from sampling preparation, measurement, characterization, analysis, discussion and commercial production after successful resultant research.

Activities: (Publications and Seminars)

1. Workshop on developing writing & Publication skills for Scientific Research. 23rd. – 24th. March 2004. University Putra Malaysia, Seri Serdang- Malaysia.
2. National Seminar in Medical Physics, 27th. – 28th. August 2005. De Rhu Beach Resort, Kuwantan – Malaysia (Participant).
3. 7th. Putra Physics Seminar. 1st. October 2005. Radiation Preparation of Conducting Polyaniline/PVA Composite. Department of Physics, University Putra Malaysia (Silver Medal).
4. Research Poster Competition on the remembered day of Hiroshima & Nagasaki “Sehari Sempena Memberinggati Pengeboma Hiroshima & Nagasaki”. August 9, 2005. Radiation Preparation of Conducting Polyaniline composites. University Technology Malaysia (Presenter).
5. Workshop on FT-Raman Spectroscopy. December 16, 2005. Department of Physics, Faculty of Science & Technology, University Kebangsaan Malaysia.
6. Malaysian Technology Expo. Invention & Innovation Competition, 23 – 25 Feb. 2006. Preparation and Control of Conducting Polyaniline by Radiation. Putra Ward Trade Center (PWTC), Kuala Lumpur (Silver Medal).
7. International Meeting on Radiation Processing. 27 Feb. – 3 March 2006. Development of Conducting Polyaniline by Radiation. Hilton hotel, Kuala Lumpur. (Silver Medal).
8. Research Poster Competition on the remembered day of Hiroshima & Nagasaki “Sehari Sempena Memberinggati Pengeboma Hiroshima & Nagasaki”. August 9, 2006. University Kebangsaan Malaysia UKM. (2nd. Best Presenter).

9. 19th Malaysian Analytical Chemistry Symposium (SKAM 19) and 2nd Malaysian Conference on Catalysis (MyCat 2). “Analytical Chemistry for Scientific Excellence”. 21st - 24th August 2006. University Putra Malaysia UPM. (presenter, silver medal).
10. National Physics Conference. 6-7 December 2006. Radiation Preparation and Characterization of Conducting Composite Polyaniline. Palace of the Golden Horses, Serikembangan , Selangor – Malaysia.
11. National Physics Conference. 6-7 December 2006. Polyaniline/Silver Nanoparticles Induced by Radiation. Palace of the Golden Horses, Serikembangan , Selangor – Malaysia.
12. 8th. Putra Physics Seminar. November 29, 2006. Synthesis of Conducting Polyaniline Nanocomposites by Radiation Doping. Faculty of Science – UPM – Malaysia. (Golden Medal).
13. “Radiation Synthesis and Characterization of Conducting Nanocomposites Polyaniline” Paper presented on International conference on Material Today Asia (MTAS007), Paper No.MTA0037. Bijing, 3-5 September 2007.
14. Mohammed Ahmed Ali, E. Saion, N. Yahya, A. Kassim, K. M. Dahlan, S. Hashim. 2007. Synthesis of conducting polyaniline nanocomposites by radiation Doping. *Journal of Engineering Science and Technology* Vol. 2, No. 1: 111-118.
15. Mohammed Ahmed Ali, E. Saion, N. Yahya, A. Kassim, K. M. Dahlan, K. A. Rabaeh, I. Shahrin, S. Hashim. 2007. Chemical modification and control of polyaniline nanocomposites conductivity by radiation Technique in PVA matrix. *Journal of Engineering Science and Technology* Vol. 2, No. 3: 280-289.

16. Mohammed Ahmed Ali, E. Saion, A. A. Al-Zahrany, Y. Noorhana, Kh. Mohd. Dahlan, A. Kassim, K. A. Rabaeh, M. H. Hamzah. 2008. Gamma Radiation Synthesis and Characterization of Polyvinyl alcohol/Silver Nanocomposites film. *Journal of Engineering Science and Technology* Vol. x: xx-xx.
17. M. A. Ali, E. Saion, M. E. M. Jaralnabi, A. A. Al-Zahrany, A. A. Abdalla, Kh. Mohd. Dahlan, M. H. Hamzah, Y. M. Yousif. 2009. Gamma Radiation Synthesis and Characterization of Polyvinyl Alcohol/ Silver Nanocomposites Film. *Sudan Academic Science Journal* Vol. x, P: xx-xx
18. M. A. Ali, M. E. M. JarElnabi, E. Saion, A. A. Abdalla, A. A. Al-Zahrany, Y. M. Yousif, M. H. Haron, Kh. M. Dahlan. 2009. Normoxic Polymer Gel of Hydroxyethyl-acrylate (HEA) as Radiation Therapy Dosimeter. *Sudan Academic Science Journal* Vol. x, P: xx-xx

Referees:

- Prof. Dr. Elias Saion, head of Physics Department, Faculty of Science, University Putra Malaysia, Sri Serdang-Selangor Darul Ehsan, 43400 - Malaysia
E. mail: elias@putr.upm.edu.my.
- Prof. Dr. Mohamed Elfadil, Head of Radiation Therapy Department, Sudan University of Science & Technology, Khartoum-Sudan P. O. Box 1908
E. mail: mohamedelfadil@hotmail.com
- Assoc. Prof. Dr. Noorhana Yahya, Institute of Technology Petronas, University Technology Petronas, Bandar Seri Iskandar, 31750 Tronoh, Perak Darul Ridzuan – Malaysia. Fax : +605-365-7443. Email : noorhana_yahya@petronas.com.my
- Assoc. Prof. Dr. Khairulzaman Haj Muhamad Dahlan, Nuclear Energy Agency of Malaysia, Radiation Processing Division – Bangi, 43000 Kajang
E. mail: khairul@nuclearmalaysia.gov.my