# JANUARY-MARCH 2014

### NEWSLETTER

## DEPARTMENT OF CHEMISTRY

# UNIVERSITY OF NAIROBI

#### FROM THE CHAIRMAN'S DESK



Dr Amir Yusuf, Chairman

Department of Chemistry



Dept of Chemistry Building

The Department of Chemistry is in the School of Physical Sciences, College of Biological and Physical Sciences. It handles about 1800 undergraduate students each academic year and about thirty (30) Master of Science and eight (8) Ph.D students each year. These students are handled by 48 academic staff in the areas of Physical, Organic, Inorganic, Environmental, Analytical and Industrial Chemistry. To beef the academic members are 25 technologists, 1 senior Administrative Assistant and two secretaries. The Detergent Unit also employs an additional four casuals which gives a total of 80 staff.

The Department offers the following undergraduate programmes: Bachelor of Science in Chemistry, Bachelor of Science in Environmental Chemistry, Bachelor of Science in Industrial Chemistry and Bachelor of Science in Analytical Chemistry. In addition, the Department also services various schools and faculties as follows: Agriculture, Design, Engineering, Medicine and Pharmacy.

We also offer postgraduate programmes leading to Master of Science in Chemistry, Master of Science in Industrial Chemistry, Master of Science in Analytical Chemistry, Master of Science in Organic Chemistry, Master of Science in Environmental Chemistry.

The Department is in possession of the following pieces of equipment which has made research possible: 200MHz Nuclear Magnetic Resonance (NMR), Infrared Spectrophotometer (IR), Gas-Chromatograph (GC), Gas Chromatograph-Mass Spectrometer (GC-MS), HPLC, Atomic Absorption Spectrometer (AAS), Flame Photometer, UV/Vis Spectrophotometer just to name a few.

#### PROMOTION

Four lecturers were promoted to Senior Lecturer. The four dons are: Dr. Albert Ndakala, Dr. Martin Njogu, Dr. John Wanjohi and Dr. Fredrick Odour. Dr. Ndakala joined the Department in 2004 after completing his Doctorate at University of Connecticut, USA.

He has served the Department as Postgraduate and Seminar Committee Chairman, until his appointment to School of Physical Sciences, Postgraduate Committee Chair. Dr. Njogu joined the Department in 2007 after his doctorial

studies (UoN) as lecturer. Immediately he joined, he was also appointed as Kenya Science Campus SMU Manager. He also had a stint as Department of Chemistry, Kenya Science Campus Coordinator. Dr. Wanjohi joined the Department in 1990 as Graduate Assistant and was promoted to Lecturer in 2003. Currently he is Departmental Chair of Examination and Registration Committee. Lastly Dr. Odour was promoted as lecturer in the Department in 2003. He is currently serving as committee member in Health and safety docket. Congratulations.



Dr Oduor Fred Dr John Wanjohi Dr Martin Njogu Dr Albert Ndakala

#### ACTIVATION OF ATOMIC ABSORPTION SPECTROPHOTOMETER (AAS)



The Department has had Shimadzu AAS for a number of years but it has never been used for several years due to non-functional hood. In 2012 a Good Samaritan managed to construct a new hood in artificial chemistry lab at a cost of Kshs 167,000. This year again the same Good Samaritan had a fan and other accessories fitted at a cost of additional kshs.75, 000. I am happy to report that AAs is now operational.

AAS HOOD

#### DONATION OF CHAIRS



A Good Samaritan donated forty chairs estimated at about Kshs. 120,000. An advance batch of twenty chairs was delivered by Science Workshop on 15/11/2013 and the rest will be delivered shortly. The first batch of twenty chairs were taken to our Reading Room to make reading in our Library more enjoyable to both students and staff.

New look Reading Room

#### DONATION OF 400 MHZ NMR



200MHz NMR to be replaced by 400MHz

The Department of Chemistry, University of Gothenburg in collaboration with International Science Program (ISP) donated a 400MHz NMR machine to our Department so as to engage in active research. This will replace our 200 MHz NMR that is now fourteen years old. The 200MHz machine cannot process HMBC, HMBQ which the new machine will be able to perform. We are indeed thankful to the Vice-Chancellor who agreed to cater for quenching, packing, transportation, installation, training and other related charges to the tune of Kshs 10million. You will be informed as and when it arrives.

#### RESIGNATION



Mr. Wilson Tonkei, a Graduate Assistant resigned from the employment of University of Nairobi in Novemebr 2013. Mr. Tonkei joined the Department of Chemistry in March 2012. He was about to complete his MSc degree. He has joined Kajiado County Public Service Board as an employee and Department of Chemistry is wishing him well.

Mr W. Tonkei

### KERICHO GOVERNOR PAYS A COURTESY CALL

Kericho Governor Prof. Paul Chepkwony paid a courtesy call to the Department. The Governor is an alumni of the Department having graduated with Master of Science in Chemistry. His project was in natural products chemistry under the supervision of Prof. Midiwo. The Department wishes him well in his new responsibility.

#### DONATION OF GLASSWARE AND OTHER PIECES OF EQUIPMENT

The Department received the following equipment and glassware from International Foundation for Science (ISP) of Sweden:

Four rotary evaporators, four vacuum pumps, four UV lamps, one hydrogenation machine, and four hot plates valued at approximately 2.6 million. ISP has been in a long term collaboration and its our wish that they will continue assisting us. Thank you ISP.





HPLC



Rotary evaporator: Dr. Yusuf, Prof Midiwo, Prof Abiy

And Dr Kerubo