



## CURRICULUM VITAE

**WILSON MBITI NJUE**  
Chemistry Department  
Kenyatta University  
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**Nairobi Kenya**

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### 1.0 PERSONAL INFORMATION

**NAME:** Wilson Mbiti Njue  
**DATE OF BIRTH:** 23<sup>rd</sup> September, 1952  
**MARITAL STATUS:** Married  
**CHILDREN:** 2 children – 1 boy, 1 girl  
**ADDRESS:** P.O. Box 43844, NAIROBI  
**TELEPHONE:** 8710901 Ext. 57460  
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**EMAIL ADDRESS:** [wilsonnjue@yahoo.com](mailto:wilsonnjue@yahoo.com)  
**LANGUAGES:** Kiambu, English, Kiswahili  
**CITIZENSHIP:** Kenyan  
**GENDER:** Male  
**PLACE OF BIRTH:** Embu, Embu county

### 2.0 QUALIFICATIONS

#### 2.1 Academic Qualifications

- 1987 Ph.D. Chemistry, University of Alberta, Canada
- Specialization: Organic Synthesis- Natural Products
- M.SC. Chemistry, Nairobi University, Kenya
- 1977B.Ed (Science), Nairobi University, Kenya
- 1974 Dip. Ed (Science) Kenya Science Teachers College

### 3.0 EMPLOYMENT HISTORY/WORK EXPERIENCE

- **2015** Professor of chemistry , Embu university college
- **2002** Associate professor, Chemistry Dept., Kenyatta University
- **2001 - 2003** Coordinator of Science graduate programmes, Institute of Continuing Education, Kenyatta University.
- **1992 – 2001** Senior Lecturer, Chemistry Dept., Kenyatta University
- **1998** Coordinator, Chinese Link Committee
- **1992 -1998** Chairman, Chemistry Department

- 1982-1987 Research Assistant, University of Alberta, Canada
- 1987 – 1992 Lecturer, Chemistry Dept., Kenyatta University
- 1999 Consultant: curriculum development, Science degree program-Kigali Rwanda
- 1995-2004 Dept. Coordinator for Postgraduate Academic programmes.
- 1995 World Bank Equipment Procurement Committee member
- 1991 – 1992 Coordinator & Area Supervisor, Teaching Practice, Embu and Kirinyaga Districts.
- 1980 -1987 Tutorial Fellow, Chemistry Dept., Kenyatta University

#### **4.0 ADMINISTRATIVE RESPONSIBILITIES**

##### **4.1 At Kenyatta University**

- 2007 - 2013 Director, Kenyatta University Kitui Campus
- 2006 - 2007 Director, Centre for Self Sponsored Programs
- 2003 - 2004 Director, University Income Generating Activities (IGA)
- 1992 – 1998 Chairman, Chemistry Department
- 1999 Ag. Dean, Faculty of Science, Kenyatta University

#### **5.0 FELLOWSHIPS**

- 1980 – 1987 Canadian Commonwealth Scholarship
- 1991 Research Supervisor, John Hopkins Hospital sponsored research on Information Education Communication for the Family Planning.
- 1991 - 1993 Consultant Trainer of American Peace Corps, Science Teachers, Naivasha Training Centre
- 1987 Research Fellow, Chemistry Dept., University of Alberta, Canada.
- 1993 Organic Synthesis Training Course, Bangalore, India, December,
- 1992 Four months training on Pedagogy, University of Leeds, Leeds, England, 1992.
- 1998 Training Workshop on Scientific writing, at University of Nairobi sponsored by South African Chemical Society, 1998.
- 1992 Towards excellence in Teaching and Research, German Foundation for International Development (DSE), Mombasa, 1992

#### **6.0 POSTGRADUATE SUPERVISION**

##### **6.1 Ph.D Supervision**

###### **6.1.1. Completed**

**2004**

- **Alphonse W. Wanyonyi**  
“Molluscicidal and antimicrobial activity of solanum species”

###### **6.1.2 On going**

**2016**

- **Rose B. Oyugi**  
“BisphenolA as an emerging environmental chemical pollutant”

## 6.2 Masters Supervision

### 6.2.1 Completed

2013

- **Faith Mburu Reg. No. I56/10651/2006.**  
“Potential toxic levels of Cyanide in Cassava grown in Kakamega, Kisii, Kitui, Thika and Nairobi.”

2010

- **Nyachoti Syprose Kemunto Reg. No. I56/10835/2006 .**  
“Determination of thiocyanate among smokers and non-smokers using urine as a biological indicator.”

2008

- **Faridah H. Were M.Sc. Reg. No. I56/13112/2005**  
“Use of human nails as a bio-indicator of heavy metals overload in children. “

2006

- **Grace Muchemi M.Sc.**  
“Immune boosting trace elements in selected food grains in Kenya.”
- **Ngugi Mathew Piero Reg. No. I56/7212/2002**  
“Evaluation of hypoglycemic activity of some Kenyan plants used in traditional medicine for treatment of diabetic mellitus.”
- **Murugi Joan Njagi Reg. No. I56/7257/2002 M.Sc**  
“Hypoglycemic effects of some antidiabetic plants used in traditional medicine in Kenya.”
- **Cromwel Kibiti Reg. No. I56/7263/2002**  
“Determination of hypoglycaemic potentials from some Kenyan plants used in traditional medicine.”

2003

- **Francis.W. Muregi**  
“Anti-plasmodial activity of some Kenyan medicinal plants singly and in combination with chloroquine.”

2002

- **Jackson Kiptoo**  
“Assessment of the levels of some toxic and anti-nutritional substances in Kenyan coffee pulp.”

### 6.2.2. On Going

2015

- **Peninnah Mueni Reg. No.I56/29384/2014**  
Assessment of citrulline in cucurbitas , fruits/seeds , vegetables and nuts.
- **Mwidadi Omar Reg. No.I56 /27958/2014**  
Acrylamide in fried /baked potato food products in Central Business.District. Mombasa city.
- **Maina Mary Wangui Reg. No. I56/CE/27063/2013**  
Synthesis of Nanostructured Zeolite Catalysts and Transformation of Organic Compounds.

2012

- **Juma Seif Reg. No. I56/13113/2005**  
“Chicken Feathers as Animal Feed Supplements”

2013

### **Njenga I kariuki Reg. No. I56/5772/2003**

Trace elements with immunological properties in some medicinal plants.

## 7.0 CONFERENCES/SEMINARS/WORKSHOPS

### 7.1 Participation in Workshop/Conferences

- Kenya chemical society internal conference. Essential trace metal analysis in medicinal plants commonly used in Kenya. University of Nairobi. 14<sup>th</sup>-18<sup>th</sup> April 2015
- The 3<sup>rd</sup> Kenya Chemical Society International Conference. Heavy metals and Pesticides determination in Marine plants, sediments and sea water along Mombasa Coastline. Jomo Kenyatta University of Agriculture and Technology. 16<sup>th</sup> - 20<sup>th</sup> August 1999.
- Theoretical Chemistry in Africa Workshop - Mini Labs in the teaching of chemistry. (Paper presented) University of Nairobi, Kenya. 2<sup>nd</sup> - 6<sup>th</sup> November, 1998.
- EPO -ARIPO Workshop on Intellectual Property. University of Nairobi, Kenya. 16<sup>th</sup> - 18<sup>th</sup> November, 1998.

### 7.2 Presentation of papers at Academic and Professional Conferences

- 2<sup>nd</sup> Scientific conference. KMTC, Nairobi. 9<sup>th</sup> – 11<sup>th</sup> May 2012. Cassava Toxicity and other associated diseases.
- Kenya Chemical Society Conference. Finger nails as bio-indicator of heavy metals body over load. Mombasa, September 2009.
- Kenya Chemical Society 5<sup>th</sup> International Conference. Kenyatta University, August, 2006:
  - (a) Immune Boosting Trace Metals in food grains consumed in Kenya.
  - (b) Molluscicidal steroid alkaloids from *solanum aculeastrum* and *solanum orundo*
- 1<sup>st</sup> African Congress on Biology and Health. A survey of Medicinal plants traditionally used in cure of highland Malaria. University of Setif, Algeria, April 23 - 25, 2000.
- Kenya Chemical Society conference. Use of thiolmalonates in Organic synthesis. Moi University, Eldoret, Kenya. June, 1997.
- Inaugural conference, Kenya Chemical society. Synthetic studies of Clovane-diol, University of Nairobi, Kenya June 1994.
- Royal Society of Chemistry conference. Research and Teaching of Chemistry in Developing Countries. Imperial College, London, England, 1992.

### 7.3 Convening and co-ordinating Conferences

- Coordination Team Member for Kenya Chemical Society International Conference held at Kenyatta University, August, 2006.

## 8.0. RESEARCH AND PUBLICATIONS

### 8.1 Articles in Refereed International Journals/with students/joint

- Wilson M. Njue. Ruth Wanjau. Njenga I. Kariuki. (2016). Analysis of Trace Elements by EDXRF in Selected Medicinal Plants used in Kenya. *International Journal of Science & Techknowledge*. **VOL. 4(1). 1-4 , (ISSN 2321- 919X)**.
- Muchemi G.N, Wanjau R.N., Murungi I.J, Njue W.M\* . (2015). Assessment of essential trace elements in selected food grains, herbal spices and seeds commonly used in Kenya. *African Journal of Food Science*. **Vol. 9(8). pp 441-447, ISSN. 1996-0794**.
- .Ngugi M P, Njagi M J, Kibiti M C, Ngeranwa J N. Njagi N M , Njue M.W, Gathumbi K.P.(2015). Hypoglycemic effects of *Helichrysum odorosissimum* in alloxan induced diabetic mice. *The journal phytopharmacology*. **4(1) : 30 - 33**
- Ngugi M P, Njagi M J, Kibiti M C, Ngeranwa J N. Njagi N M , Njue M W, Gathumbi K.P. ( 2012). Herbal Management of Diabetes mellitus: an expanding research avenue. *International journal of current pharmaceutical research*. **Vol. 5 No.2 , 1- 4, ISSN- 0975 – 7066**.
- Njue W M. Mburu F. Swaleh S. (2011). Cassava Food Poisoning in Eastern Province, Kenya. *Cassava Cyanide Diseases Neurolathyrism Network (CCDN)*. **No. 18 1- 2**.
- Ngugi M. P. .Murugi N.J, Kibiti M.C, Ngeranwa J.J, Njue M.W, Njagi N.E, , Gathumbi K.P.(2011). Hypoglycemic Activity of some Kenyan plants traditionally used to manage Diabetes Mellitus in Eastern Province, Kenya. *J. Diabetes Metab*. **2 :8 : 156. ISSN: 2155 - 6156**
- Farridah H. Were, Njue Wilson, Jane Murungi, Ruth Wanjau. (2008). Use of human nails as bio- indicators of heavy metals environmental exposure among school age children in Kenya. *Sci Total Environ*. **393 (2 -3) 576 -584, ISSN 0048 -1697**.
- Farridah Hussein Were, Wilson M. Njue Jane Murungi and Ruth Wanjau. (2009). Comparison of some essential and heavy metals in the toenails and fingernails of school age children in Kenya. *Bull, Chem, Soc*. **23(1), 117 -122**.
- C.E Johnson, F. Oladeinde, A.M Kinyua J.M Makinde, W.M. Njue, G.N. Kamau, W. M. Kofi -Tsekpo (2008). Comparative Assessment of Total Phenolic Content in selected Medicinal plants. *Niger J, Nat. Prod. Med*. **12 :40**.
- F. W. Muregi, S. C.Chhabra W.M. Njue. E. N. M. Njagi, C. Langa't – Thoruwa, I. O. Ndiege (2004). Anti-plamodial Activity of some Kenyan medicinal plant extracts singly and in combination with Chloroquine. *Phytotherapy Research* **18 379 – 384**.
- Bor S.K Simbauni J.A, Oyugi M.P, Njue W.M, Chhabra, S.C. (2007). Organo-chlorine residues in tissues of marine fauna along the coast of Kenya Mombasa Island. *Bulletin of Chemical Society of Ethiopia*. **Volume 21, Number 1, April 2007. Pp 145-149**.
- Festus M. Tolo, Geoffrey M. Rukangu, Faith W. Muli, Eliud N.M Njagi, Wilson Njue, Kauko Kumon, Kofi – Tsepo (2006). Anti-viral activity of extracts of a Kenyan medicinal plant *Carissa Edulis* against herpes simplex virus. *Journal of Ethnopharmacology* **104, 92 - 99**

- Mildred P. Oyugi, Summesh c. Chhabra, Wilson M.Njue and Anthony M. Kinyua (2003). Heavy metals and Pesticides in Marine Sediment, sea water and sea plants along the Kenya - Mombasa Coastline. **Journal of Trace and Microprobe Techniques No. 21, No.1, pp. 147 - 159.**
- Alphonse W. Wanyonyi, Sumesh. Chhabra, Gerald Mkojo, Wilson Njue, Paul K. Tarus, (2003) molluscicidal and antimicrobial activity of solanum aculeastrum. **Fitoterapia 74, 298-301.**
- F.W. Muregi, S.C. Chhabra, E.N.M.Njagi, C.Lang'at-Thoruwa, W.N.Njue, I.O. Ndiege (2003). In vitro antiplasmodial activity of some plants used in Kisii, Kenya against Malaria and their chloroquine potentiative effects. **Journal of Ethnopharmacology 84 235 - 239.**
- Alphonse W. Wanyonyi, Sumesh C. Chhabra, Gerald Mkoji, Udo Eilert, Wilson M. Njue(2002), **Bioactive steroidal alkaloid glycosides from Selanum aculeastrum. Phytochemistry 59 79 - 84.**
- Kinyua, A.M. Thinguri M.T., Njue W. (1999). Determination of Heavy Metals and Sulphur in Waste Engine Oils. **Bulletin of Chemical Society of Ethiopia. 13(2), 99 - 104.** ISSN 1011 - 3294
- Njue W.N., H.J. Liu, P.N. Olley (1990) Photolabelling of Prostaglandin E<sub>2</sub> receptor in cardiac sarcolemmal vesicles: **FEBS Lett 265, 117 - 120.**
- Kinyua A.M., Njue W (1995). Rice Husks Ash and its use as a Pozzolana - **A Kenyan Experience. Talanta, 42(1) 1491 - 1493.**
- Njue W.M. Liu H.J.(1990) Synthetic Studies of a Sesquiterpene - clovane-2 $\beta$ ,9 $\alpha$ -diol. **Can.J.Chem. 68, 549 - 556.**

#### Local Journals/Kenyan

- Nyachoti S. K. Njue W. M. Murungi J. I. Wanjau R .N. (2011). Use of Urine as Biological Indicator of cyanide exposure among smokers in Kenya. **Journal of Kenya Chemical Society, ISSN 1811- 5934. Vol. 6 No 1.**
- Muchemi G. Njue W.M Wanjau R Murungi I J. (2007) immune boosting trace elements in selected food grains grown in Kenya. **Journal of Kenya chem. society. Vol.4 No.2. 27 - 32, JKCS- ISSN 1811 - 5934.**
- Njue. W.M., Kinyua A.M., Thing'uri,M.T. (2004). Energy potential of waste oils fcal automobiles and fish processing industries. **Journal of Kenya Chemical Society. No.1 Vol.1 25- 28, ISSN 1811 - 5934**
- Bor S.K., Simbauni J, Kinyua A.M., Njue W.M., Chhabra S.C.(2004) Heavy Metal Contaminants in tissues of Marine fauna along the Coast of Mombasa Island -Kenya. **East African Journal of Physical Sciences 5(2) 61 - 68,** ISSN 1729 - 5106
- J. Kiptoo, W.Njue,J.Mburu, A. Gachanja (2002) Levels of caffeine and total polyphenols in Kenyan Coffee pulp. **East African Journal of Physical Sciences 4(1) 29 - 40** ISSN 179 - 5106
- Njue W.M.,Gitu L.M. (1999). Aflatoxins in Animal Feeds. **East African Journal of Physical Sciences 1(2) 59 - 66** ISSN 1729 - 5106
- M.Njuguna,W.M. Njue (1999) Determination of Volatile Impurities in Alcoholic Brews by GC. **International Journal of Biochemiphysics. 8(1&2), 28 - 31.**
- Njue W.M. Gitu L.M. (1998). Determination of Aflatoxin B<sub>1</sub> in Animal Fees by Voltametric technique. **International Journal of Biochemiphysics Vol. 6 & 7 (1 &2) 24 - 27**

- Njue W.M., Gitu L.M. Kaberia Njue W.(1996)Determination of Aflatoxins B<sub>1</sub> and M<sub>1</sub> in Animal Feeds and Liquid Milk using Thin Layer Chromatography. **International Journal of Biochemiphysics, Vol. 5 No. (1&2) 11 - 14.**
- Njue W.M. and Liu H.J. (1991). An efficient approach to B-hydroxy propionates and acrylates from thiolmalonates. **International Journal of Biochemiphysics, 1(2) 21 - 24.**

### 8.3 Books and Manuals

- Computations used in University Chemistry. Kenyatta University Library.
- Work Book on Infrared Spectral Interpretation.

### 9.0 Networking and Collaboration with External Organizations

- 2011 and 2012 Organised and oversaw visits to Kitui Campus by students from Oklahoma State University, USA.
- 2005 – Present Member and Project Partner, Kenya Medicinal Plants, Morgan State University Centre for Complimentary and Alternative medicine
- 1999 Curriculum Development for Science Degree Programs for Kigali Institute of Education

### 10.0 External and Internal Grants

- 2007: Awarded Ksh. 500,000/. Research Grant by Vice Chancellor, Kenyatta University together with Dr. Sauda Swaleh and Dr. Richard Musau on “Evaluation of anti-microbial efficacy of medicinal plants traditionally used in control of infectious diseases.
- 2007: Awarded Ksh. 500,000/= Vice Chancellor’s Research Grant together with Dr. Ruth Wanjau, Dr. J. Murungi on “Use of Chicken Feathers as a fertilizer”.
- 2002: Awarded Ksh. 500,000/= Vice Chancellor’s Research Grant together with Dr. I. Ndiege, Dr. C. Lang’at, Prof. A. Orago and Dr. E.N. Njagi on “ Exploration of some Kenyan medicinal plants for novel anti-malarial drugs”.
- 1998 Vice Chancellor’s Research Grant Award Ksh. 500,000
- 1996 Vice Chancellor’s 1996 Research Grant Ksh. 500,000.

### 11.0 LOCAL, REGIONAL AND INTERNATIONAL APPOINTMENTS

#### 11.1 External Examiner

- June 2003 M.Sc. Thesis, Jomo Kenyatta University of Agriculture and Technology Chemistry Dept.
- Sept. 2002 M.Sc. Thesis, University of Nairobi, Institute of Nuclear Science

#### 11.2 Review of Professional Periodicals

- 2011 *Reviewer, Environmental Toxicology and chemistry international journal*
- 2011 *Reviewer, Polish Journal of Environmental studies*

#### 11.4. Appointment to Boards

2007	Chairman, Vice-Chancellor's Committee on Streamlining of School Based Programmes.
2007	Member, Ad-Hoc Committee on Development of Policy on Short Courses.
2006	Chairman, SPAS committee on Establishment Centre for indigenous natural products.
2006	Chairman, Ad-Hoc, Committee on establishment of Centre for Traditional Herbal Medicine in SPAS
2006 - 2010	Non Senate representative to Council
2006	Member, University Catering and Accommodation Board.
2006	Chairman, VC's Committee on Review of Tuition Fee paid by Lecturers.
2005 - Present	Member, Kenya Bureau of Standards Committee on Solvents and Industrial Chemicals.
1981 - Present	Academic Board Member, School of Pure & Applied Sciences
1994-1997	Member, Promotions & Appraisal Committee for non-teaching staff.
1996-2007	Member, Chemistry Department Examinations Moderation Committee.
1997- 2001	Member, University Training Committee Departmental (Chemistry) Examination Officer
1992-1994	Chemistry Department's representative to the University library.
1995 - 2000	Member, University Drug Committee.
2003 - 2004	Board Member of Self-Sponsored Programmes (SSP)

#### 12.0 AWARDS

2010	Long and exemplary service award, Kenyatta University
2007	Exemplary service award, Kenyatta University
2002	Long and exemplary service award, Kenyatta University
1977	Mobil Award for best student in Chemistry, Kenyatta University
1977	Mobil Award for best student in Mathematics, Kenyatta University
1975	College Award for best student in Chemistry, Kenya Science Teachers College.
2000	Vice Chancellor's publication award.
1997	Vice Chancellor's Publication Award.

#### 13.0 COMMUNITY OUTREACH



- Overseeing the construction of toilets/bathroom facilities for newly established Police Station at Kwa Vonza near Kitui Campus.
- 2000- Present -Member - Board of Governors, Kamama Secondary School, Embu.
- 2003 - Present - Member Board of Governors, Kairuri, Secondary School Embu.
- Patron of Embu Students Welfare Association

#### **14.0 ACADEMIC LEADERSHIP**

- 2011 Chairman, Kitui Campus 5 year Strategic Plan
- 2008 Developed Kitui Campus Flier and Admissions Requirements Booklet
- 2007 Proposal for Establishment of Centre for Traditional Plant Medicine
- 2007 Proposal for Establishment of Bachelor of Science in Medicinal Chemistry
- 2005 Development of Bridging courses in Chemistry for Kenyatta University
- 2003 Development of Pre-University Program for Kenyatta University.

#### **15.0 OTHERS**

##### **15.1 Contribution to University Advancement/Donations**

- Initiated Pilot Project on Pig Keeping at minimal cost at Kitui Campus funded by Kenyatta University
- Obtained book donations for Kitui Campus Library from Teachers Without Borders, U.S.A. group
- Sourced Science laboratory equipment for Chemistry Department laboratory from University of Alberta, Canada.
- Sourced for laboratory equipment for Chemistry Department from University of Leeds, U.K.

##### **15.2 Professional Membership**

1996 - 1998: -Assistant Secretary, Kenya Chemical Society.

1996 - Present - Member, Kenya Chemical Society

1996 - Present -Editorial Board member, International Journal of Biochemiphysics.

1996 - Present -Member, NAPRECA (Natural Products Research Network in Eastern and Central Africa).

##### **15.3 Research Interests**

- Mycotoxins in Foods and animal feeds.
- Chemical and Ethnobotanical studies of some Kenyan medicinal plants traditionally and sustainably used in cure of chronic diseases.
- Organic synthesis and reactions of natural products.
- Hypoglycaemic properties of compounds extracted from Kenyan Medicinal Plants.
- Cyanogenic compounds in cassava and other cyanogenic plants.
- Chemical profiles of Aloe species found in Eastern and North Eastern parts of Kenya.

- Total phenolic content in some medicinal plants found in Kenya.
- Food science: toxicity, health awareness, environment issues.

## **16.0 REFEREES**

1. Prof. H.O. Ayot  
Dept of Educational Comm-Tech,  
Kenyatta University  
Tel. No. 0722257347
2. Prof. G.K. Muthakia  
Deputy Principal,  
Kimathi University Collge  
Tel. No. 0722567318