

Curriculum Vitae

Dr. Edward Mubiru

Food Chemist and Food Analyst

Makerere University, College of Natural Sciences, Chemistry Department

E-mail: edmubiru@cns.mak.ac.ug, mubirued@gmail.com

+256-772-445-482/ +256-706-045-482

Education

- **PhD in Biological Sciences (Food Chemistry and Food Analysis)**, 8th June, 2018, Faculty of Bioscience Engineering, Ghent University, Belgium
 - **Thesis title: Epoxy fatty acids in foods: Analytics, formation and risk assessment. ISBN:978-463571043**
- **Master of Science, Food Science and Technology**, Makerere University January, 2008.
- **Postgraduate Diploma in Computer Science class [2.1]**, Makerere University 2001-2002.
- **Bachelor of Science, Food Science and Technology class [2.1]**, Makerere University- October 1996-2000.
- **Diploma, Science and Technology (Chemistry and Biochemistry)**, Kyambogo University 1990-1993.
- **A-Levels Chemistry, Biology, Geography and Sub-Mathematics, 1990; 8 O- Levels.**

Professional experience

- **Lecturer**, Makerere University, Chemistry Department, July 2018 to date.
- **Assistant Lecturer**, Makerere University, Chemistry Department, January 2009 to July 2018.
- **Graduate Research Assistant**, Pesticide Residue Laboratory, Chemistry department, Makerere University September 2003- January 2009.
- **Technician**, Industrial Chemistry Laboratory, Chemistry department, Makerere University, May 1995.
- **Technician**, Kyambogo Secondary School, January 1993 to May 1995.

Scholarly output

PhD Dissertation

- Mubiru, E., (2018). Epoxy fatty acids in foods: Analytics, formation and risk assessment

Published in A1 Journals:

- Kubiriza, G. K., Ssempijja, D., **Mubiru, E.**, Semwanga, N., Odoli, C. O., Zalwango, J., & Masette, M. (2020). Oxidative stability and proximate composition of silver cyprinid (*Rastrineobola argentea*) used for fishmeal in East Africa. *Journal of Applied Aquaculture*, 1-21. DOI: [10.1080/10454438.2020.1727808](https://doi.org/10.1080/10454438.2020.1727808)
- Ssebugere P., Sillanpää M., Matovu H., **Mubiru E.** (2019). Human and environmental exposure to PCDD/Fs and dioxin-like PCBs in Africa: A review. *Chemosphere*, Volume 223, DOI.org/10.1016/j.chemosphere.2019.02.065.
- **Mubiru E.**, Liesbeth Jacxsens, Antonios Papastergiadis, Carl Lachat, Kshitij Shrestha, N. H. M. Rubel Mozumder & Bruno De Meulenaer (2017): Exposure assessment of epoxy fatty acids through consumption of specific foods available in Belgium, *Food Additives & Contaminants: Part A*, DOI: [10.1080/19440049.2017.1310399](https://doi.org/10.1080/19440049.2017.1310399)
- **Mubiru, E.**, Shrestha, K., Papastergiadis, A., & De Meulenaer, B. (2014). Development and validation of a gas chromatography–flame ionization detection method for the determination of epoxy fatty acids in food matrices. *Journal of Agricultural and Food Chemistry*, 62(13), 2982-2988.
- Papastergiadis, Antonios, **Mubiru, E.**, Van Langenhove, H., & Meulenaer, B. (2013). Development of a sensitive and accurate stable isotope dilution assay for the simultaneous determination of free 4-hydroxy-2-(e)-nonenal and 4-hydroxy-2-(e)-hexenal in various food matrices by gas chromatography–mass spectrometry. *Food Analytical Methods*, 7(4), 836-843.
- **Mubiru, E.**, Shrestha, K., Papastergiadis, A., & De Meulenaer, B. (2013). Improved gas chromatography-flame ionization detector analytical method for the analysis of epoxy fatty acids. *Journal of Chromatography A*, 1318, 217-225.
- Papastergiadis, A., **Mubiru, E.**, Van Langenhove, H., & De Meulenaer, B. (2012). Malondialdehyde measurement in oxidized foods: Evaluation of the spectrophotometric thiobarbituric acid reactive substances (tbars) test in various foods. *Journal of Agricultural and Food Chemistry*, 60(38), 9589-9594

Oral presentations:

- **Mubiru, E.**, Shrestha, K., Papastergiadis, A., & De Meulenaer, B. (2013). "Improved gas chromatography-flame ionization detector analytical method for the analysis of epoxy fatty acids. Abstract of Scientific Papers of the 105th AOCS Annual Meeting & Expo, San Antonio, Texas, USA.
- **Mubiru, E.**, Shrestha, K., Papastergiadis, A., & De Meulenaer, B. (2014). "Development and Validation of a Gas Chromatography–Flame Ionization Detection Method for the

Determination of epoxy fatty acids in Food Matrices. Abstract of Scientific Papers of the 105th AOCS Annual Meeting, San Antonio, Texas, USA.

- **Mubiru E.**, Pesticide residues in fresh tomatoes and cabbages produced under conventional and integrated pest management (IPM) in Uganda. Paper presented in the International Conference on Pesticide use in Developing countries: environmental fate, effects and public health 16th-20th, 2006 Arusha, Tanzania.

Flash poster presentation:

- Mubiru, E., Shrestha, K., Papastergiadis, A., & De Meulenaer, B. (2014). Gas chromatographic analytical method for the analysis of oxygenated polar fatty acids. 13th International symposium on Hyphenated Techniques in Chromatography and Separation Technology (HTC-13) and 3rd International symposium on Hyphenated Techniques for Sample Preparation (HTSP-3), Book of abstracts, Brugges, Belgium.

Participation at International meetings:

- **January 29th-31st, 2014:** International Symposium on Hyphenated Techniques in Chromatography and Separation Technology (HTC-13) and 3rd International Symposium on Hyphenated Techniques for Sample Preparation (HTSP-3, Book of abstracts, Brugges, Belgium.
- **May 4 - 7th, 2014:** 105th AOCS Annual Meeting & Expo, San Antonio, Texas, USA.

Supervised dissertations as a tutor:

- Buyle, Z (2014). Formation of epoxy fatty acids during autoxidation of oils at elevated temperature. Master dissertation, Ghent University
- Ciko, T (2014). Evolution of epoxy fatty acids during photo and autoxidation of vegetable oils. Master dissertation, Ghent University.
- Rubel Mozumder, N.H.M. (2014). Quantitative determination of epoxy fatty acids in oils and foods by gas-liquid chromatography. Master dissertation, Ghent University.

Other publications:

- Pesticide use and residues in cabbages and tomatoes: a case of Kiboga, Mbarara and Mukono districts. **MSc Thesis, 2008.**
- Effect of Processing, Storage Methods and Time on the Development of Aflatoxins in Groundnuts, 2000 (**Presented to the Department of Food Science, Makerere University**).

Special skills and training:

- Attended a forensic chemistry and toxicology course at Imperial Loyale Hotel, Kampala, 5th – 8th, 2019
- Attended a Complete GC & GC-MS Training at the Open University, Milton Keynes, UK, 29th April – 3rd May, 2019.
- Analytical techniques: Quality control, process control and refinery optimization, May 3- 4, 2014, San Antonio, Texas, USA.
- Seminar on pipetting and calibration by Brand GMBH and CO KG, Germany, March 25th, 2013.
- Completed theoretical a course in basic principles, method development and troubleshooting in HPLC and LC-MS by Trans-Laboratory at Ghent University, April, 27th, 2012.
- Completed theoretical course in basic principles, method development and troubleshooting in CGLC and GC-MS by Trans-Laboratory at Ghent University, April, 20th, 2012.
- Attended Agilent seminar in “Just enough sample preparation with LC-MS tips and tricks for lower detection limits and increased productivity, May 31st, 2011.
- Attended Analytical Skills Development Course at OPCW Laboratory (VERIFIN), University of Helsinki Finland, 30th Nov- 14th Dec, 2007
- Attended the 5th East and Southern Africa Laboratory Managers Training at Kampala 4th – 8th, December 2006.
- Attended a GC/MS course on principles, operations, protocols and trouble shooting 8-19th May, 2006 at Makerere University.
- Attended MASMA Ecotoxicology and Risk Assessment course at Zanzibar 21st Nov.-2nd Dec 2005.
- Attended Croplife Africa Middle East Training of Trainers course on Pesticide use at APEP Uganda. 5th-8th 2004.
- Completed a Safe Pesticide Handling and Application course at Makerere University 19th-24th July, 2004.
- Attended ANCAP pesticide residue analysis summer schools (2nd ; (2003), 3rd (2004) and 4th ; 11th - 22nd July 2005) .
- Completed a certificate in Proposal writing and resource mobilization at Uganda Management Institute 25th Aug-29th September 2003.

Affiliations

-
- Member of Society of Environmental Toxicology and Chemistry (**SETAC-AFRICA**).
 - Member of African Network for the Chemical Analysis of Pesticides (**ANCAP**).
 - Member of Uganda Badminton Association (**UBA**)