GEORGE WANDERA KISIMBIRI

Doctoral Researcher Atmospheric Science unit

Department of Environmental Science

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ABOUT ME

PhD researcher interested in climate and air quality. I am particularly interested the atmospheric chemistry of air pollutants from vehicular non-exhaust emissions, with a focus in brake wear-derived gaseous emissions. Additionally, I have expertise in utilizing synchrotron-based techniques to study secondary organic aerosol formation on atmospheric inorganic salts.

RESEARCH INTERESTS

Research Area: Vehicular Brake Wear Emissions, Surface Chemistry

Experimental: Mass Spectrometry Techniques (HR-TOF-CIMS, PTR-MS), Tribometer, Size

Distribution equipment (SMPS, OPC), Synchrotron Techniques (APXPS, NEXAFS)

ACADEMIC BACKGROUND

2024-Present	PhD, Gaseous Emissions from Brake Wear and their potential to form Secondary
	Particles
	Stockholm University, Sweden
2022-2024	Masters, Chemistry (Atmospheric), Thesis: APXPS Investigations of Secondary

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Organic Aerosol (SOA) Formation on Atmospheric Inorganic salts

University of Gothenburg, Sweden

2015-2019 Bachelor's, Industrial Chemistry

Multimedia University of Kenya, Kenya

WORK EXPERIENCE

2024-Present	Doctoral Researcher, Gaseous emissions from Brake Wear and their potential to
	form Secondary Particles.
	Stockholm University, Sweden
2022-2024	International Student Ambassador
	University of Gothenburg, Sweden
2020-2022	Chief Operations Officer, Ongwediva Concrete Products, Kenya
2021	Tutorial Fellow, Kisiwa Technical Training Institute, Kenya
2019	Laboratory Analyst, Kenya Bureau of Standards, Kenya

TEACHING

2021 **Tutorial Fellow** Organic, Inorganic Chemistry Kisiwa TTI, Kenya

CONFERENCES

2024 Bolin Centre for Climate Research Stockholm, Sweden 2024 MAX1V 35th User Conference Lund, Sweden.

POSTER PRESENTATION

2024 MAX1V 35th User Conference Lund, Sweden.

SCHOLARSHIPS AND AWARDS

2022-2024 Swedish Institute Scholarship for Global Professionals (Fully-funded) for a

Master's programme in Chemistry at University of Gothenburg, Sweden

2023 Swedish Institute- Diploma in Self Leadership Programme.

MEMBERSHIP IN SOCIETIES

2024- Bolin Centre For Climate Research Sweden
2022- Swedish Institute Network For Global Professionals (SINFGL) Sweden

PUBLICATIONS

- 1. Chen Jie, <u>George Wandera Kisimbiri</u>*, Ivan Gladich, Nicolas Fauré, Erik S. Thomson, Robert Temperton, Zamin A. Kanji, and Xiangrui Kong. **2025**. "Surface Formation Pathway of Nitrogenand Sulfur-Containing Organic Compounds on Ammonium Sulfate." *The Journal of Physical Chemistry A*. doi:10.1021/acs.jpca.5c00332
- Madivoli, Edwin Shigwenya, Patrick Gachoki Kareru, David Sujee Makhanu, <u>George Wandera Kisimbiri</u>, Ernest Gachui Maina, Sammy Indire Wanakai, and Paul Kinyanjui Kimani. **2020**. "Synthesis of Spherical Titanium Dioxide Microspheres and Its Application to Degrade Rifampicin." *Environmental Nanotechnology, Monitoring & Management* 14: 100327. doi:10.1016/j.enmm.2020.100327.