

Nancy N. Kariuki

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Professional Experience

- **2007-Present.** Assistant Chemist, Argonne National Laboratory, Chemical Engineering Division.
 - Hydrogen and Fuel Cell Materials Research. Developing colloidal synthetic methods for preparing nanocatalyst materials.
Electrochemical characterization of catalyst materials.
- **2005-2007.** Postdoctoral Appointee, Argonne National Laboratory, Chemical Engineering Division.
 - Hydrogen and Fuel Cell Materials Research. Developing colloidal synthetic methods for preparing nanocatalyst materials.
Electrochemical characterization of catalyst materials.
- **2001-2005.** Graduate Research Assistant, Department of Chemistry, State University of New York at Binghamton.
 - Developed nanocatalysts for fuel cell catalysis.
 - Developed new routes for nanoparticle assembly.
 - Gained fundamental understanding and operation of a broad range of materials characterization techniques and instrumentations.
 - Studied nanostructured materials for electroanalytical applications.
- **1998-2000.** Research fellow, Tsinghua University; Beijing, China.
 - Designed optimized extraction and analysis of Chinese herbal medicine.
- **1993-1995.** M.S. Graduate Research, Pyrethrum Board of Kenya.
 - Investigated quality inconsistencies in natural pyrethrum insecticide

Education

Ph.D., Chemistry, State University of New York at Binghamton, 2006.
M.S., Chemistry, Egerton University (Kenya), 1995.
B.S., Chemistry, Honors, Egerton University (Kenya), 1990.

Awards

- Materials Chemistry Excellence in Research Fellowship, SUNY-Binghamton (2005)
- Chinese Government Scholarship for advanced studies in China (1996)

Research Interests

- Nanotechnology: nanomaterial synthesis and characterization, nanostructured assembly.
- Fuel Cell Technology: catalyst synthesis, electrode preparation.
- Energy: alternative sources, conversion, and storage.
- Electrochemistry: fuel cell characterization, nanoelectrodes, and chemical/biological detection.
- Surface Science: microscopies and spectroscopies.

Professional Society Affiliations

- American Chemical Society
- Material Research Society
- Electrochemical Society

Publications & Patents

- Publications: 20+