Allison Kaye Ituralde Arabelo

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Work Experience

Laboratory of Biotechnology for Resource Engineering
Faculty of Engineering, Hokkaido University – Sapporo, Japan June – July 2018
Research Intern

- Investigated the adsorption behavior of metal tolerant bacteria, which achieved almost 100% lead ion removal largely through the use of its extracellular polymeric substance.
- Used microbially-induced calcite precipitation to harden sand for the purpose of reducing coastal erosion.

Rubber Materials Research & Development
Consulting Facility, University of the Philippines – Quezon City, Philippines February – May 2018
Laboratory Apprentice

- Assisted in the preliminary experiments for the dissertation of graduate students, which involved latex modification and extraction and purification of kaolinite clay for tires.
- Learned various characterization methods for the analysis of rubber materials.

Education

University of the Philippines, Diliman · Bachelor of Science, Materials Engineering December 2018

- Graduated *cum laude*; ranked 4th among the BS Materials Engineering graduates of 2018
- Coursework: Composites · Materials characterization · Metals · Degradation · Non-destructive testing

Skills

- **Programming Languages:** Python · Java
- **Languages:** English · Filipino · Japanese
- **Technologies:** Autodesk Fusion 360 · MATLAB · Octave · LaTeX · Adobe Photoshop · MS Office

Publications

[2] *(In preparation)*: W. Mwandira, **A.I. Arabelo**, K. Nakashima, S. Kawasaki, M. Ito, T. Sato, T. Igarashi, M. Chirwa, K. Banda, I. Nyambe, S. Nakayama *Isolation, screening, and identification of indigenous metal tolerant bacteria for Pb removal from aqueous solution isolated from metal-polluted soils in Kabwe, Zambia.*
[1] *(In preparation)*: **A.I. Arabelo**, A.O. Samaniego, J. Madrid, A. Chuang, R. Espiritu, *Synthesis of cellulose-acetate based radiation grafted alkaline anion exchange membranes for fuel cells.*

Projects

A.I. Arabelo, G.M. Quindoza III, *Electrophoretic Deposition of Fluoridated Hydroxyapatite on 316L Steel*
A.I. Arabelo, A.O. Samaniego, G. Abeleda, *Fabrication of F and Zn Co-doped Tin Oxide Coated Glass*
A.I. Arabelo, C.B. Agano *Effect of Doping CCTO with SiO2 and MgO on the Dielectric Constant*

Activities

President, University of the Philippines Materials Science Society April 2018 – Present

- Oversaw all activities, projects, and affairs of the organization, which is dedicated to the promotion of materials science and engineering in the Philippines.

Director, Materials Science and Engineering Summit July 2018 – Present

- Responsible for the organization of the event which aims to promote materials science and engineering in the Philippines through symposium plenary talks, olympiad, research fair, and career talks.

Founding President, Pi Kappa Gamma Sorority February 2018 – January 2019

- Founded a sorority dedicated to the empowerment and development of female leaders from the Colleges of Science, Engineering, and Architecture. Drafted the constitution, code of conduct, and structure.

Head, Women Empowerment Series June 2018 – October 2018

- Organized several empowerment talks that promote STEM fields for female high school students.