

DEPARTMENT OF BIOLOGICAL AND BIOMEDICAL SCIENCES



Name of Faculty/Staff: Dr. Mwangi William Wachira

Designation/Rank: Lecturer

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Educational Background:

- Doctor of Philosophy (Chemical Engineering), Monash University, Malaysia (2017)
- Master of Science (Biochemistry), Egerton University, Kenya (2010)
- Bachelor of Science (Major: Biochemistry Minor: Chemistry, Botany and Zoology), Egerton University, Kenya (2007)

Brief Auto-biography of the Faculty/Staff

Dr. Mwangi is a lecturer at Laikipia University. His research interests revolve around the use of hydrocolloids in the design of Pickering emulsion-based delivery systems. Dr. Mwangi is an active researcher and has published several Q1 scientific articles in ISI-indexed journals.

Selected Publications

1. **Mwangi W.W.**, Lim, H-P., Low, L-E , Tey, B. T, Chan, E-S. (2020). Food-grade Pickering emulsions for encapsulation and delivery of bioactives. *Trends in Food Science & Technology*, 100, 320-332. Impact factor = 11.077; Q1
2. **Mwangi, W. W.**, Ho, K. W., Ooi, C. W., Tey, B. T., & Chan, E-S. (2016). Facile method for forming ionically cross-linked chitosan microcapsules from Pickering emulsion templates. *Food Hydrocolloids*, 55, 26-33. Impact factor = 7.053; Q1
3. **Mwangi, W. W.**, Ho, K. W., Tey, B. T., & Chan, E-S. (2016). Effects of environmental factors on the physical stability of Pickering emulsions stabilized by chitosan particles. *Food Hydrocolloids*, 60, 543-550. Impact factor = 7.053; Q1; Q1

4. Ho, K. W., Ooi, C. W., **Mwangi, W. W.**, Leong, W. F., Tey, B. T., & Chan, E-S. (2016). Comparison of self-aggregated chitosan particles prepared with and without ultrasonication pretreatment as Pickering emulsifier. *Food Hydrocolloids*, 52, 827-837. Impact factor = 7.053; Q1; Q1
5. **Mwangi W. W.**, Shitandi, A. & Ngure, R. M. (2011). Evaluation of the performance of *Bacillus cereus* as test organism for assay of tetracyclines in chicken meat. *Journal of Food Safety*, 31, 190-196. Impact factor = 1.133; Q2
6. **Mwangi W. W.**, Shitandi, A. & Ngure, R. M. (2011). Determination of the Limit of detection of penicillin G residues in poultry meat using a low cost microbiological method. *International Food Research Journal*, 18, 1203-1208. Impact factor = 0.662; Q4
7. Ngure, R. M., Eckersall, P., Burke, J., Karori, S. M., **Mwangi W. W.**, Wachira, F. N., Maathai, R. & Murray, M. (2009). Endotoxin-like effects in acute phase response to *Trypanosoma brucei* infection are not due to gastrointestinal leakage. *Parasitology International*, 58, 325-329. Impact factor = 1.866; Q2

Research Interest

Encapsulation, hydrocolloids, drug/nutraceutical delivery, Pickering emulsions, colloid science, biomaterials.