

INSTITUTE OF BIOSCIENCES

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Field of expertise : Aquatic Chemistry

**Research Interests:**

Field: Aquatic Chemistry/Fish husbandary

Current Project: Development of prebiotic/synbiotic/immunostimulant for aquatic animal feed from brown seaweed

List of Publications: H index =5

1. **Muhammad Farhan Nazarudin**, Nurul Haziqah Alias, Seentusha Balakrishnan, Wan Nurazween Izate Wan Hasnan, Nur Amirah Izyan Noor Mazli, Mohd Ihsanuddin Ahmad, Ina-Salwany Md Yasin, Azizul Isha, Mohammed Aliyu Paiko (2021). Chemical, Nutrient and Physicochemical Properties of Brown Seaweed, *Sargassum polycystum* C. Agardh (Phaeophyceae) Collected from Port Dickson, Peninsular Malaysia. *Molecules*. 1270630
2. **Muhammad Farhan Nazarudin**, Nurul Haziqah Alias, Noraznita Sharifuddin, Atifa Zainal Abidin, Mohd Ihsanuddin Ahmad, Nur Amirah Izyan Noor Mazli, Ikhsan Natrah, Mohammed Aliyu-Paiko, and Azizul Isha (2021). Preliminary Evaluation of the Biochemical and Antioxidant Properties of Seaweed Species Predominantly Distributed in Peninsular Malaysia. *Journal of Fisheries and Environment*. 45(2):119-133.
3. Sunusi Usman, Ahmad Faizal Abdull Razis, Khozirah Shaari, Muhammad Noor Azmai Amal, Mohd Zamri Saad, Nurulfiza Mat Isa, **Muhammad Farhan Nazarudin**, Syaizwan Zahmir Zulkifli, Jumria Sutra and Musa Adamu Ibrahim (2020). Microplastics Pollution as an Invisible Potential Threat to Food Safety and Security, Policy Challenges and the Way Forward. *International Journal of Environmental Research and Public Health*. 17, 9591; doi:10.3390/ijerph17249591
4. **Muhammad Farhan Nazarudin**, Azizul Isha, Siti Nurulhuda Mastuki, Nooraini Mohd. Ain, Natrah Fatin Mohd Ikhsan, Atifa Zainal Abidin and Mohammed Aliyu-Paiko (2020).

Chemical Composition and Evaluation of the α -Glucosidase Inhibitory and Cytotoxic Properties of Marine Algae *Ulva intestinalis*, *Halimeda macroloba*, and *Sargassum ilicifolium*. *Evidence-Based Complementary and Alternative Medicine*. Volume 2020, Article ID 2753945

5. **Muhammad Farhan Nazarudin**, Anusha Paramisparam, Nur Afiqah Khalid, Maziah Nazihah Albaz, Muhammad Syazwan Shahidan, Ina Salwany Md Yasin, Azizul Isha, Mazni Abu Zarin, Mohammed Aliyu-Paiko (2020). Metabolic variations in seaweed, *Sargassum polycystum* samples subjected to different drying methods via ^1H NMR-based metabolomics and their bioactivity in diverse solvent extracts. *Arabian Journal of Chemistry*. 13:7652–7664
6. **Muhammad Farhan Nazarudin**, Fatimah Yusoff, Ezni Suryani Idrus, Mohammed Aliyu-Paiko (2020). Brown seaweed *Sargassum polycystum* as dietary supplement exhibits prebiotic potentials in Asian sea bass *Lates calcarifer* fingerlings. *Aquaculture Reports*. 18 (2020) 100488.
7. **Muhammad Farhan Nazarudin**, Abdoulie Ceesay, Mohammed Aliyu-Paiko, Mariana Nor Shamsudin, Intan Safinar Ismail and Norfarrah Mohamed Alipiah (2019). Extraction and Characterization of Organ Components of the Malaysian Sea cucumber, *Holothuria leucospilota* Yielded Bioactives Exhibiting Diverse Properties. *BioMed Research International*. Volume 2019, Article ID 2640684.
8. **M. F. Nazarudin**, M. Aliyu-Paiko and M. N. Shamsudin (2016). Serum Cortisol Concentrations Change in Tiger Grouper, *Epinephelus fuscoguttatus* in response to Water Temperature and Salinity stress. *Iranian Journal of Fisheries Sciences*. 15(4):1511-1525.
9. **M. F. Nazarudin**, I. Hamadneh and Z. Zainal (2015). Synthesis of $\text{ErBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Superconducting Ceramic Material via Co precipitation and Conventional Solid State Routes. *Journal of Materials and Environmental Science*. 6(2): 359-365.
10. **M. F. Nazarudin**, and M. N. Shamsudin (2013). Scanning and Transmission Electron Microscopy Evaluation Of The Effects And Efficiency Of Formulated L. Lactis Cell Suspended In Skim Milk In The Presence Of Starch And Gellan Gum As Excipients. *Australian Journal of Basic and Applied Sciences*. 7(2): 343-349
11. **M. F. Nazarudin**, Z. Zainal, W.T. Tan, I. Hamadneh & E.F. Kadri (2012). Abrasive Stripping Voltammetric (Abrsv) Studies of $\text{ErBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Superconductor Synthesised Via Co-Precipitation and Solid State Methods. *International Journal of Electrochemical Science*. 7:2965-2982.
12. **M. F. Nazarudin**, I. Hamadneh., W.T. Tan, Z. Zainal. (2011). The effect of sintering temperature variation on the superconducting properties of $\text{ErBa}_2\text{Cu}_3\text{O}_{7-\delta}$ superconductor

prepared via coprecipitation method. *Journal of Superconductivity and Novel Magnetism* 24 (5): 1745-1750.

13. M.H. Wahid, Z. Zainal, I. Hamadneh, K.B. Tan, S.A. Halim, A.M. Rosli, E.S. Alaghbari, **M.F. Nazarudin**, E.F. Kadri. (2011). Phase formation of REBa₂Cu₃O_{7-δ} (RE: Y_{0.5}Gd_{0.5}, Y_{0.5}Nd_{0.5}, Nd_{0.5}Gd_{0.5}) superconductors from nanopowders synthesised via co-precipitation. *Ceramics International*. 38:1187-1193.
14. **M. F. Nazarudin**, A. A. Shamsuri, M. N. Shamsudin (2011). Preparation and Physicochemical Evaluation of Biodegradable Magnetic K₂-Carrageenan Beads and Application for Chromium Ions Pre-concentration. *J. Chil. Chem. Soc.*, 56(4): 2891-894.
15. **M. F. Nazarudin**, A. A. Shamsuri and M. N. Shamsudin (2011). Physicochemical Characterization of Chitosan/Agar Blend Gel Beads Prepared Via the Interphase Method with Different Drying Techniques. *Int. J. Pure Appl. Sci. Technol.* 3(1) :35-43

List of Grants:

- Immunostimulatory seabass feed from marine algae: Processing effects, active fractions and their impact onto fish microbiota composition Project leader 2017-2019 Geran Putra
On-going
- Microalgae for sustainable aquaculture health: Microalgae Vaccine Delivery System Co-researcher 2016-2021 SATREPS-COSMOS (JICA-JST)-MOHE On-going
- Innovative Vaccines and Therapeutics against Fish Diseases Co-researcher 2016-2018
HiCOE On-going

List of Patent:

Use of Sargassum sp. as a Prebiotic animals feed component. Patent Filing No.: PI 2013702168