

## Cover Letter for Submission of a Paper

January 02<sup>nd</sup>, 2025

Dear Prof. Nuryono

Editor in Chief, Indonesian Journal of Chemistry (IJC)

We are writing to submit a new manuscript entitled "Microwave-Assisted Extraction of Polysaccharides from *Chlorella pyrenoidosa* and Its Characterization" for Indonesian Journal of Chemistry (IJC).

We confirm that this work is original and has neither been published elsewhere nor is currently under consideration for publication elsewhere.

This study explored an efficient method for extracting polysaccharides from *Chlorella pyrenoidosa* using Microwave-Assisted Extraction (MAE) with water as the solvent, a technique consistent with green chemistry principles. The goal was to enhance the yield and quality of polysaccharides for their potential applications as multifunctional active ingredients in the pharmaceutical and functional food industries. Key extraction parameters, including extraction time (10, 20, and 30 minutes), temperature (70, 80 and 90°C), and solid-to-liquid ratios (1:20, 1:30, 1:40 m/v), were systematically evaluated. FTIR, SEM, proximate and HPLC for characterization about the result of this study. The novelty of our work lies in choosing the optimal extraction condition for the highest yield in polysaccharides from *Chlorella pyrenoidosa*.

Please address all correspondence concerning this manuscript to us at [abudiman@ugm.ac.id](mailto:abudiman@ugm.ac.id).

Thank you for considering our manuscript for publication in IJC journal. We look forward to the opportunity to contribute to the journal's mission of advancing knowledge in the field of organics, materials, and analytical chemistry particularly in the area of polysaccharide extraction using microwave.

Sincerely,



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