

Review Form 1.7

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_103119
Title of the Manuscript:	Biocharacterization Study on Fermented Liquid Organic Manure (kunapajala) Using Analytical Technique: Gas Chromatography – Mass Spectrometry (GC-MS)
Type of the Article	Research

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>The research article entitled "Biocharacterization Study on Fermented Liquid Organic Manure (kunapajala) Using Analytical Technique: Gas Chromatography – Mass Spectrometry (GC-MS)"</p> <ol style="list-style-type: none"> Appropriately titled the manuscript The abstract is well developed All subsections are appropriately titled This manuscript is scientifically correct. In the conclusion part, need to give a summary and please indicate the future direction of the current study. 	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	<p>After minor revising the article, this paper can be published in the International Journal of Environment and Climate Change</p>	
<p>Optional/General comments</p>	<p>-</p> <ol style="list-style-type: none"> The study focuses on "kunapajala," a fermented liquid organic manure described in the ancient literature collection of plant life science known as "Vrikshayurveda." Kunapajala is an excellent organic fertilizer that enhances the growth and development of a wide range of crops. A modified version of kunapajala was developed and standardized using vegetarian ingredients, ensuring no compromise on nutrients. The fermented formulation of kunapajala contains essential nutrients, amino acids, keratins, and other bioactive compounds. Gas Chromatography – Mass Spectrometry (GC-MS) was used to analyze the bioactive compounds present in kunapajala at different fermentation periods (20th, 40th, and 60th day). Organic solvents, diethyl ether, and methanol were used to prepare the extract for analysis. The mass spectra of the compounds in kunapajala were compared with standard mass 	

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	<p>spectra databases.</p> <p>8. Various compounds were identified in kunapajala, including Hexanoic acid, Phenol-TMS, Methyl oleate, Octadecanoic acid, Methyl palmitate, Myristic acid-TMS, Tetradecanoic acid, Caproic acid, Methyl myristoleate, (Z)-tetradec-9-enoic acid, 2-Aminooctanoic acid-TMS, 2-aminooctanoic acid, Butylated Hydroxytoluene, Juniperic acid-2TMS, Stearic acid-TMS, Linoleic acid-TMS, and more.</p> <p>9. These compounds possess various beneficial properties, such as antimicrobial, antifungal, antibacterial, antioxidant, insecticidal, nematicidal, and physiological and metabolic responses.</p> <p>10. The presence of these phytochemicals in kunapajala highlights its effectiveness in influencing organic crop production.</p> <p>11. The study emphasizes the importance of kunapajala as an effective source of liquid formulation due to its phytochemical composition.</p>	
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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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