



### REVIEWER'S REPORT

Manuscript No.: IJAR-50703

Date: 18-03-2025

**Title: BIOTECHNOLOGICAL POTENTIAL OF YEASTS ISOLATED FROM STREET HOT BEVERAGES FOR THE PRODUCTION OF BIOETHANOL FROM CASSAVA DOUGH WATER IN CÔTE D'IVOIRE**

**Recommendation:**

- Accept as it is.....**YES**.....
- Accept after minor revision.....
- Accept after major revision .....
- Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality	√			
Techn. Quality		√		
Clarity		√		
Significance			√	

**Reviewer's Name:** Mir Tanveer

**Reviewer's Decision about Paper:** Recommended for Publication.

**Comments** (*Use additional pages, if required*)

### Reviewer's Comment / Report

**Abstract**

The abstract effectively conveys the study's main objective of utilizing cassava dough water for bioethanol production. The selection of yeast strains (*Candida kefyr*, *Candida rugosa*, and *K. ohmeri*) from street hot beverages and their potential for fermentation is well-presented. The mention of extracellular enzyme production and ethanol yield (up to 5%) highlights the biotechnological significance of these strains. Additionally, the study's relevance to environmental sustainability through wastewater valorization is clearly articulated. The abstract is concise, informative, and aligns with the manuscript's scope.

**Keywords**

The keywords—yeasts, cassava dough water, attiéké, and bioethanol—accurately capture the study's core themes. These terms enhance searchability and ensure relevance within the fields of microbial biotechnology, fermentation, and biofuel production.

**Introduction**

The introduction provides a thorough background on cassava as a staple crop and its importance in global

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food security. The historical context of cassava's introduction to Africa and its transformation into attiéké establishes the significance of the study. The discussion on cassava's perishability and the necessity of processing reinforces the need for sustainable valorization strategies. The detailed description of attiéké production, including the pressing process and wastewater generation, effectively highlights the environmental problem the study aims to address.

The literature review is well-integrated, citing relevant studies on cassava processing, wastewater valorization, and bioethanol production. The reference to previous research on yeast-based wastewater recycling strengthens the study's scientific foundation. Additionally, the mention of cyanogenic compound removal during processing provides an important safety consideration.

### **Materials and Methods**

The methodology is clearly described, particularly the isolation and identification of yeast strains from street hot beverages. The use of MALDI-TOF for strain identification at the Pasteur Institute of Côte d'Ivoire adds credibility to the microbiological approach. The storage conditions for yeast strains are appropriately detailed, ensuring reproducibility.

### **Overall Assessment**

The manuscript presents a well-structured and scientifically sound study on the potential use of yeasts for bioethanol production from cassava dough water. The introduction effectively establishes the study's relevance, while the methodology is clearly outlined. The research contributes to both environmental sustainability and industrial biofuel production. The writing is clear and precise, making the study accessible to researchers in microbiology, biotechnology, and renewable energy fields.