

REVIEWER'S REPORT

Manuscript No.: JNAVES-016

Title: DEVELOPMENT OF AG NANOPARTICLE BIOCHAR EMBEDDED PVA/ALGINATE BEADS AND THEIR APPLICATION AGAINST GRAM-POSITIVE BACTERIA,.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer's ID: JPR-Dr Hari Prashad Joshi

Detailed Reviewer's Report

This study develops PVA/alginate beads incorporating silver-loaded corn husk biochar for antibacterial activity against Gram-positive bacteria. While the topic is relevant, major revisions are required. First, the manuscript lacks essential methodological details: the green synthesis of Ag nanoparticles using tea polyphenols is described, but no characterisation of the nanoparticles (size, morphology, zeta potential) is provided. Second, the antibacterial tests report only inhibition zones without quantification of bacterial viability or minimum inhibitory concentration (MIC); the claim of “good stability” is not supported by repeated assays or kinetic data. Third, the swelling ratio and mechanical tests are presented without replicates or statistical analysis. Fourth, the comparison with previous studies (Table 1) is incomplete and does not clearly state the novelty. Fifth, the English requires editing for clarity and grammar. The authors must add nanoparticle characterisation, perform quantitative antibacterial assays, include statistical replicates, and clarify the novelty. A major revision is necessary.