



REVIEWER'S REPORT

Manuscript No.: IJAR-57504

Title: BATCH ADSORPTION OF OFLOXACIN ONTO ACTIVATED CARBON DERIVED FROM EGGSHELLS.

Recommendation:

Accept as it is

Accept after minor revision...

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer's ID: Dr. Sumathi

Detailed Reviewer's Report

- 1. Adsorption is the adhesion of atoms, ions, or molecules from a gas, liquid, or dissolved solid to the surface of a material (adsorbent), forming a thin film. It is a surface-specific process often used for purification, separation, and catalysis. Unlike absorption, which penetrates the bulk of a material, adsorption sticks only to the exterior or internal porous surfaces.**
- 2. Adsorption is the adhesion of atoms, ions, or molecules from a gas, liquid, or dissolved solid to the surface of another substance (the adsorbent), creating a thin surface layer. Unlike absorption, which is a bulk process, adsorption is a surface-level accumulation. Key types include physical (*physisorption*) and chemical (*chemisorption*).**
- 3. Ofloxacin is a fluoroquinolone antibiotic used to treat various bacterial infections, including pneumonia, bronchitis, skin infections, UTIs, and prostatitis. It works by stopping bacterial growth. Common side effects include nausea, headache, diarrhea, insomnia, and dizziness. Serious risks include tendinitis, nerve damage, and mood changes.**

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- 4. Activated carbon is a highly porous material, derived from carbonaceous sources like coconut shells or coal, used extensively for purification through adsorption. With an immense internal surface area, it traps contaminants from liquids and gases, commonly used in water filtration, air purification, and medical applications to remove impurities.**
- 5. Activated carbon (or activated charcoal) is a highly porous, processed carbon material used primarily for filtering contaminants from air and water through a process called adsorption. It is made from carbon-rich sources like coal, coconut shells, or wood, treated to develop millions of tiny pores that provide an massive surface area for trapping pollutants.**
- 6. Eggshells, composed of 93–97% calcium carbonate, are a versatile, nutrient-rich byproduct suitable for gardening, composting, and as a calcium supplement. They are highly effective for deterring garden pests like snails, slugs, and grubs, and can be used to increase soil pH [0.5.2, 0.5.5]. For best results, wash and dry them, then crush into a fine powder for faster decomposition.**
- 7. Batch adsorption is a widely used, flexible liquid-phase separation technique where a specific amount of adsorbent is mixed with a solution to remove impurities or contaminants, often until equilibrium is reached. It is ideal for small-scale operations or for determining kinetic and equilibrium parameters by agitating the mixture in a shaker.**
- 8. Key words are given good. But can be added more words.**
- 9. Relevant pictures can be added.**
- 10. Result part is good with tables and graphs.**
- 11. Summary points also be added.**
- 12. After those changes good to publish in your journal**