

**REVIEWER'S REPORT****Manuscript No.: IJAR- 57569****Title: Electrochemical sensor for the determination of Nicotinic acid on glassy carbon electrode****Recommendation:  
Accept**

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

**Reviewer Name: Dr. Ashish Yadav*****Detailed Reviewer's Report*****Reviewer's Comment for Publication.**

Acceptance Comment are mentioned below suitable for the paper titled " Electrochemical sensor for the determination of Nicotinic acid on glassy carbon electrode"

**Reviewer Comments: Accept****Reviewer Comments –****Introduction**

The manuscript entitled "*Electrochemical Sensor for the Determination of Nicotinic Acid on Glassy Carbon Electrode*" presents a well-structured and scientifically relevant study focusing on the voltammetric determination of nicotinic acid using differential pulse voltammetry. The topic is significant because nicotinic acid plays an essential role in metabolic and pharmaceutical applications, thereby requiring sensitive and reliable analytical techniques for its determination. The authors clearly establish the importance of electrochemical sensing and justify the use of the glassy carbon electrode due to its favorable electrochemical properties. The abstract and overall presentation effectively communicate the objectives, scope, and practical relevance of the work. The study contributes meaningfully to the field of electroanalytical chemistry and sensor development.

**Literature Review**

The literature review demonstrates adequate coverage of previous analytical and electrochemical methods employed for nicotinic acid detection. The authors successfully compare conventional analytical techniques with electrochemical approaches, highlighting the advantages of differential pulse voltammetry in terms of sensitivity, simplicity, and low operational cost. Relevant studies on electrode materials and electrochemical sensing platforms are appropriately discussed, providing a clear background for selecting the glassy carbon electrode. The review establishes the research gap by emphasizing the need for a sensitive, rapid, and low detection limit method for nicotinic acid quantification. Overall, the cited literature supports the novelty and scientific motivation of the proposed work.

## REVIEWER'S REPORT

### Solution Approach

The proposed experimental methodology is systematic, scientifically sound, and well optimized. The authors carefully investigated the voltammetric behavior of nicotinic acid and optimized critical parameters including scan rate, pulse amplitude, pulse frequency, and pH conditions. The use of differential pulse voltammetry with a glassy carbon electrode offers a practical and reproducible sensing platform. The experimental design demonstrates strong analytical rigor and ensures reliable quantitative performance. Moreover, the selection of supporting electrolyte and optimization strategy significantly enhance the sensitivity and selectivity of the developed sensor. The methodology is sufficiently detailed and reproducible for future researchers and practical analytical applications.

### Results and Discussion

The results obtained are comprehensive and convincingly demonstrate the efficiency of the developed electrochemical sensor. The reported linear concentration range from  $2.5 \times 10^{-8}$  to  $8.0 \times 10^{-3} \text{ molL}^{-1}$  and the low detection limit of  $3.28 \times 10^{-9} \text{ molL}^{-1}$  indicate excellent analytical sensitivity. The discussion appropriately correlates the electrochemical responses with the optimized experimental parameters and provides clear interpretation of the sensor behavior. The authors also demonstrate the applicability of the method in pharmaceutical samples, which strengthens the practical relevance of the work. The presented data are coherent, scientifically justified, and adequately supported by electrochemical analysis.

### Conclusion

The manuscript successfully presents a robust, sensitive, and efficient electrochemical method for nicotinic acid determination using a glassy carbon electrode. The developed DPV technique exhibits excellent analytical characteristics including wide linearity, low detection limit, and satisfactory applicability in complex pharmaceutical matrices. The study offers valuable contributions to the development of electrochemical sensing systems for biomolecule analysis and clinical diagnostics. The manuscript is technically sound, clearly written, and supported by meaningful experimental results. Therefore, based on the scientific quality, originality, and practical significance of the work, the manuscript is recommended for acceptance.