|  |  |
| --- | --- |
| Book Name: | **Design and simulation of GHz antennas** |
| Manuscript Number: | **Ms\_BPR\_3848.1** |
| Title of the Manuscript: | **Symmetric and Asymmetric analysis of Graphene based antenna using kinetic theory of plasma** |
| Type of the Article | **Book chapter** |

**PART 1: Review Comments**

|  |  |  |
| --- | --- | --- |
| **Compulsory** REVISION comments | **Reviewer’s comment** | **Author’s Feedback** *(Please correct the manuscript and highlight that part*  *in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance**  **of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4**  **sentences may be required for this part.** | In this paper “Symmetric and Asymmetric analysis of Graphene based antenna using kinetic theory of plasma”, the authors analysis a Graphene based plasmonic nano antenna with symmetric and asymmetric structures are analyzed in THz range using a Quarter wave Transformer. The topic is interesting and with possible applicability. Overall, the article is well-written. However, certain important issues were either partially or not at all covered. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **The title is suitable** |  |
| **Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this**  **section? Please write your suggestions here.** | - **Verify the grammatical error in the abstract ( for example you repeat the word**  **“and” twice).** |  |
| **Are subsections and structure of the manuscript appropriate?** | **Overall, the article is well-structured.** |  |

|  |  |  |
| --- | --- | --- |
| **Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that**  **this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required**  **for this part.** | - **The design and testing process for the antenna is explained in detail in this manuscript.**  - **The performance of the suggested antenna, including GAIN and EFFICIENCY, S11, is thoroughly examined in this manuscript.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention**  **them in the review form.**  **-** | **The paper's relevance would increase if it included more recent references, which would provide a more**  **thorough understanding of the state of the field.** I suggested reading Article DOI=  10.1016/j.sciaf.2024.e02294 and DOI= 10.1007/978-3-031-68675-7\_12 and  DOI=10.1016/j.rineng.2024.102327. |  |
| Minor REVISION comments  **Is the language/English quality of the article suitable for scholarly communications?** | - Is suitable |  |
| **Optional/General** comments | - The paper mentions the THz range's potential briefly, but it doesn't go into much detail  on its particular benefits and drawbacks. I propose elaborating on the special advantages of the THz range. Readers might better understand the THz band's possibilities and difficulties with a more thorough explanation. For this, I recommended reading the article about THz band DOI=10.1016/j.sciaf.2024.e02294 and DOI= 10.1007/978-3-031-68675-7\_12  - This study uses a basic simulation to demonstrate all findings. Even though the modeling data is crucial, your study would be much better if you included experimental verification.  - I would suggest incorporating a comparison table that situates your work in relation to other relevant studies.  - All Figure are unclear. Try to decrease the step of simulation in HFSS.  - What about the future direction of your work.  - Why you don’t compare your design in other tools such as ADS.  - Verify equation 6.  - To give the discussion a wider framework, I advise taking a look at the sources of previous papers that I recommended.  - Verify the grammatical error in your paper.  To my knowledge, there is no plagiarism |  |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | **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)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |

|  |  |
| --- | --- |
| Reviewer Details: | |
| Name: | **Youssef Amraoui** |
| Department, University & Country | **Sidi Mohamed Ben Abdellah University, Morocco** |