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| Book Name: | **Plasmas Afterglows with N2 for Surface Treatments synthesis 2024** |
| Manuscript Number: | **Ms\_BPR\_3686.15** |
| Title of the Manuscript: | **Determination of N and O-atoms, of N2(A) and N2(X,v>13) Metastable Molecules and N2+ ion Densities in the Ar-N2 Afterglows Jets of Microwave Discharges** |
| Type of the Article | **Complete Book Chapter** |

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| 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.** | **The work presented in this munscript is significant for determination of interesting parameters affecting the** **afterglows of N2 flowing microwave discharges used specially for sterilization of medical instruments by N-atoms** **at medium gas pressures. However, the authors to present such manuscript as a book chapter should add some introductory sentences at the beginning of the abstract showing importance of this processing technique. Moreover, the introduction section should be little bit lengthy providing the most important relevant terms, definitions and sufficient literature review.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes, it is clear and 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. | **The authors to present such manuscript as a book chaprt should add some introductory sentences at the beginning of the abstract showing importance of this processing technique.** |  |
| **Are subsections and structure of the manuscript appropriate?** | **Yes, It was well organized.** |  |
| **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.** | **This manuscript would be scientifically sound if some correctnesses are rectified for more readability as follows:**   1. **Some symbols must be defined in the context, such as N2( A), N2(X, V > 13) as well as those mentioned in Table 15.1.** 2. **Equations must be re-written using word equation format.** 3. **Do not use Itallic style for some symbols in the context while they are not in equations .** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | **14 references are not sufficient. So, by expanding the introduction section, more references could be cited.** |  |
| Minor REVISION commentsIs the language/English quality of the article suitable for scholarly communications? | **The language must be revised as there are some grammatical and typographical errors. It is worthwile to mention that the simple past/ perfect present tense is commonly used for writing the literature review and conclusion not the simple present.** |  |
| Optional/General comments |  |  |

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| **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)* |  |

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| **Reviewer Details:** | |
| Name: | **Niyazi A. S. Al-Areqi** |
| Department, University & Country | **Taiz University, Yemen** |