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| Book Name: | **Plasmas Afterglows with N2 for Surface Treatments synthesis 2024** |
| Manuscript Number: | **Ms\_BPR\_3686.27** |
| Title of the Manuscript: | **RF and Microwave Afterglows in N2 Gas Mixtures for Surface Nitriding of TiO2 Films** |
| 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.** | 1. **I like the comparison between RF and microwave (HF) plasmas of N2 as well as N2 − H2 and N2 − CH4 in the corresponding afterglows by comparing densities of active species is given which is useful in research.** 2. **The TiO2 surface nitriding in RF was compared to HF at room gas temperature (RT).** 3. **The length of the RF plasma (25 cm) is much longer than that of HF (6 cm) due to longer residence time.** 4. **All this analysis data can be useful for further research work.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** |  |
| 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. | **Abstract of the article is comprehensive and no addition is required but some writing mistakes to be corrected like N2+ species writing.** |  |
| **Are subsections and structure of the manuscript appropriate?** | **Yes** |  |
| **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 TiO2 surface nitriding in RF was compared to HF at room gas temperature (RT) and**  **I like the comparison between RF and microwave (HF) plasmas of N2 as well as N2 − H2 and N2 − CH4 in the corresponding afterglows is given. The length of the RF plasma (25 cm) is much longer than that of HF (6 cm) due to longer residence time. Manuscript describes the scientific data and techniqually sound.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **References are sufficient and some recent references are also given.** |  |
| Minor REVISION commentsIs the language/English quality of the article suitable for scholarly communications? | English quality of the article is suitable. |  |
| Optional/General comments | Overall manuscript is suitable for publication. |  |

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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)*** |  |
| **Reviewer Details:** | | | | |
| **Name:** | **Shilpa Laxman Snagle** | | | |
| **Department, University & Country** | **MVP Samaj’s KSKW Arts, Science and Commerce college Cidco, India** | | | |