Response to the Editor and Reviewer's comments

Coatings

"Non-polar gallium nitride for photodetection applications: A systematic review"

Dear Editor and Reviewers,

Thank you for your useful comments and suggestion on the structure and scientific content of our manuscript. We have modified the manuscript accordingly, and detailed correction listed below point by point:

 # Reviewer 1

This paper systematically reviews the research on non-polar GaN photodetectors. The article is rich in materials and relatively detailed. However, the overall content is somewhat lengthy, and the introduction of basic knowledge accounts for a large proportion. From the perspective of the first half, it is not so much an article as an introduction part of a graduation thesis. A good review requires the author to have a strong ability to extract and refine information first, and then be good at summarizing. Finally, if you can express some of your own views, the article will be sublimated again. Considering the workload of this article, the reviewers make several suggestions:

1. The author should consider whether the second part of the article is redundant;

   Action/amendment: Thank you for the highlighted comment. The second part of the manuscript (Systematic Literature Review Protocol) is one of the the main stars of the manuscript as it highlights the search process, inclusion and exclusion criteria, data extraction, study selection and the strategy. In turn, the readers can understand why these articles were included within the scope of our manuscript. Therefore, it was an essential part to include within the study of non-polar GaN-based photodetector.

2. The pictures in the article should preferably be the experimental data of the cited literature, or compare the processed data of multiple articles, which will be more convincing;

Action/amendment: Thank you for the highlighted comment. The experimental data of the screened articles were included in the first taxonomy (Growth and Fabrication), which surrounds the experimental procedures. Additionally, the comparisons of the proposed categories in growth and fabrication were included in pages 16, line 3-26. Furthermore, comparisons in terms of the electrical properties were included in page 25, line 4-16. In contrast, a comparison of the structural morphological and optical properties based on the targeted articles were included in page 30 (line 7-16, (line 22-26), (31-37). Finally, for future opportunities were discussed in terms of growth condition, fabrication and characterization in 37, and 38.

3. Refine the language and clarify the conclusions drawn from the summary;
   Action/amendment: Thank you for the highlighted comment. The language of the summery was refined to clarify the conclusion of the manuscript as shown in 37.
4. Pay more attention to formatting, such as capitalization and subscripts.
   Action/amendment: Thank you for the highlighted comment. We are sorry for the unintentional mistakes of the formatting. The comment has been addressed accordingly, and the capitalization and subscripts were corrected.