Response to the Editor and Reviewers' 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 4

Non-polar gallium nitride for photodetection applications: A systematic review is very interesting review paper, but some minor improvement is required.

1. Line 29, line 30: Finally, challenges, motivation, and future opportunities of non-polar gallium nitride-based photodetectors are presented. Can you give an information about synthesis of these powders?

   Action/amendment: Thank you for the highlighted comment. The comment has been addresses and answered within the abstract in line 30-32. In addition, as highlighted in the last section of the manuscript (5.3), the future opportunities of non-polar gallium nitride-based photodetectors in terms of growth condition, fabrication and characterization are highlighted. In contrast, the information of about the synthesis of the materials is highlighted in subsection 3.1 (growth and fabrication), surrounding substrate use, photodetector geometry, contacts, layer geometry, and technique.

2. Line 70: [2,7,19,23,29,33-35]. . This (please to delete ".")

   Action/amendment: Thank you for the highlighted comment. Sorry for the mistake. The comment has been addressed accordingly in line 74.

3. Line 120, 121: the date of the extraction process (for GaN), and the data synthesis of ....(GaN). Please to explain it better!

   Action/amendment: Thank you for the highlighted comment. Sorry for the mistake. The comment has been addressed accordingly in page 3, line 125-131.

4. Line 175: provide a new direction for future research (which subject: application of powders? Synthesis of powder? recycling of powder?)

   Action/amendment: Thank you for the highlighted comment. The comment has been addressed and highlighted in line 188-190. In addition, the future opportunities in terms of growth conditions, fabrication and characterization are highlighted in page 37-38.

5. Line 192: Figure 1. Flowchart of search query and inclusion criteria for the systematic review protocol (please to add: keywords for this search)

   Action/amendment: Thank you for the highlighted comment. The comment has been addressed and the keywords for this search were included within the caption of Figure 1.

6. After Line 206 (Page 6) no information about Lines. Why? it is difficult to follow text.

   Action/amendment: Sorry for the inconvenience caused. After we added a break to the word sequence to change the page to landscape, the numberings of the lines were gone. It was essential for Figure 2 to change it to landscape.

7. page 10: . The(delete .)

   Action/amendment: Sorry for the unintentional mistake. The comment has been addressed in page 11, line 11.

8. Page 13: It is noteworthy that with the ability to produce a mass scale up production (Kg/day? tons?)

   Action/amendment: Thank you for the comment. The comment has been addressed the sentence changed to be more specific as shown in page 13, line 49-50.

9. Page 16, Line 38: It should be highlighted that non-polar nanostructure portrayed lower quality as compared with conventional polar nanostructured ..(materials? powders?)

   Action/amendment: Thank you for the comment. The comment has been addressed the sentence changed to be clear as shown in page 17, line 36.

10. Page 30, line 488: 4. Comprehensive analysis of bibliometric (data?). Is this title complete?

Action/amendment: Thank you for the comment. The comment has been addressed in page 31, line 532.