Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "High efficient deposition of 2-in. double-sided YBCO thin films in batch with pulsed inject MOCVD" (manuscript number: PHYSC_2019_251). Those comments are all valuable and very helpful for revising and improving our paper. We have studied comments carefully and have made correction which we hope meet with approval.

Revised portion are marked in red in the paper. The main corrections in the paper and the responds to the reviewer's comments are as flowing:

1. Response to comment: The manuscript should provide more parameters to support the homogeneity of the films, for examples, when the substrate is in the deposition area, how much is the self-rotating rate? And how much is the plate rotating rate? If the time that substrate stays in the deposition area is very short, and the rate of self-rotating is low, the self-rotating device will play very small role on the improvement of the uniformity. Maybe the length of the deposition area and the edge effect are more important.

Response: we are very sorry for our negligence of provide sufficient parameters. In the paper, we provide the corresponding experimental parameters which were not mentioned in the previous drafts. You can see these parameters in table 1. In the paper, the deposition time is about 75 min. At a self-rotating rate of 217°/s, the wafers will self-rotated about 45 turns during deposition. And we made a contrast experiment which proved that this self-rotating behavior could improve the homogeneity of the films. However, the thickness distribution is not as good as expected. Thus, we guessed that it was caused by the edge effect. For more details, please refer to the revised portion in paragraph 6, 11, 12, 13 and figure 2 of the revised manuscript.

Table1 parameters provided in the paper

plate rotating rate	self-rotating rate	length of deposition area
12 turns per min	217°/s	21 mm

2. Response to comment: This manuscript focused on the batch process of the double-sided YBCO thin films, so the consistency, repetition are very important, but the author just provided the result of one sample. It is better to provide the Results of the comparison between two of three samples in one turn and different turn with same condition.

Response: It is really true as the reviewer suggested that the consistency and repetition are very important for the batch process of double-sided YBCO thin films. Thus, we replaced the previous Figure 4 (Homogeneity of Jc (77 K, 0 T) of 2-in. double-sided YBCO thin films) with a new figure (Jc (77 K, 0 T) of 2-in. double-sided YBCO thin films in one turn and different turns). The new figure shows the measurement of Jc of YBCO thin films on different positions in one turn and different turns under same conditions, which indicates our pulsed inject MOCVD has good consistency and repetition in batch production of double-sided YBCO thin films. Meanwhile, some descriptive statements are added. For more details, please refer to the revised portion in paragraph 14 and figure 4 of the revised manuscript.

3. Response to comment: The formulas are not necessary, especially formula (1).

Response: As the reviewer suggested that the formulas in the previous manuscript is not necessary, we remove them in the revised version. Meanwhile, we adjusted some sentences appropriately to ensure the coherence of the article. For more details, please refer to the revised portion in paragraph 9 and 15 of the revised manuscript.

Other changes:

1) Figure 2. The testing radii of 2-in. YBCO thin films is removed

   Reason: Referring to other related papers, this figure is not necessary.

2) The materials of the planetary turnplate and the U-type nozzle were informed in paragraph 6.

   The planetary turnplate was made of stainless steel and the U-type nozzle was made of copper.

3) Some parameters were modified.

   Reason: We are very sorry for our incorrect writing of this parameters as shown in table 2. In paragraph 6 of the revised manuscript, we updated these parameters to real values.

   Table 2 parameters that were modified

The diameter of the opening	The length of the slit	The distance between two slits
53 mm (pre: 51.5 mm)	110 mm(pre: 70 mm)	45 mm (pre: 30 mm)

4) The abstract and the conclusion portion were modified in order to be consistent with the full text.

We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper. Once again, thank you very much for your comments and suggestions.