Review 2:

Paper has been edited to meet the required 6 pages.

Review 1:

Responses to reviewer's comments

Requires some minor edits:

a) "Multi-crystalline…" in the title should read "multi-crystalline…"

This has been addressed

b) Paper citation should follow house style e.g [1,2] not [1][2]

This has been addressed

Comments

This is a very interesting paper. The manuscript discuss the effect of PID on the efficiency of PV modules as well as possible ways of detection of the PD effect as well as possible recovery of the module efficiency through either forced or natural recovery.

Reviewer comments: Major revision is needed - see attached manuscript with reviewer comments indicated in scanned copy of manuscript.

A) Scientific Comments:

1. More detail must be given in the Background regarding the use of EL-why the panels with PID appears darker. Proper references must be provided.

In section 1. Background, the last paragraph elaborate introduction on EL imaging and reasons behind PID cells appearing darker than the rest has been given together with appropriate reference.

2. The author's indicate that the effect of PID has a basis in Na migrating into the grain boundaries of the modules within a PV panels. However, the authors do not support their statement that the effect is based only on the migration of Na ions.

This has been addressed in the background, from the sentence starting in line 9 to the sentence ending in line 13.

4. The use of referencing in text-comments are made by authors without proper referencing

Proper references have been done throughout the article, new references have been introduced as instructed from the attached reviewer comments on the pdf. For the case of references where more than one were listed together all except one were referenced at their appropriate points

5. The figure was removed in order to meet the six page condition

6. Provide more detail in conclusion-why PID happens and why recovery works. In addition, why would some panels/ manufacturers panels be more prone to PID and also less likely to recover? Is there differences in production of these panels which then has an adverse effect, thus, quicker PID is observed.

This has been addressed in the conclusion

Other major issues raised on the attached pdf and where they are addressed

*Why taking power measurement at 200 $W.m^{-2}$ is used to detect PID

Addressed in the last section of the first paragraph in 3.2

*how to know that the defect causing the increase in low-high irradiance ration only?
Addresses in the last sentence of second paragraph in section 3.2.

* From figure 4 the modules displays patterns of PID affected modules, with several cells appearing darker in the low current EL image in figure 4 b.

This has been addressed in first four lines of the third paragraph of section 3.2

*Discussion of AAA simulator
This has been addressed in the last sentences of section 3.3

* will humidity have no effect
In this work we didn't consider single handed the role of humidity.

*Why recovery vary in different modules
Addressed in the last five sentence of section 4.1

B) Editorial general comments - see comments on scanned copy of manuscript:
1. The format of references in in-line text.

Addressed
2. The use of scripts for parameters such as Voc, Isc and Pmpp

Addressed
3. Quality of figures 3, 5 and 7.

Addressed
4. Write PID out in title of the manuscript. Remember that in control systems PID has a different meaning.

Addressed