



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_39551
Title of the Manuscript:	Direct current in non-steady-state photovoltaic effect
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	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)
Compulsory REVISION comments	<p>The authors report a theoretical prediction of a new non-steady-state photovoltaic effect in a uniform bipolar semiconductor doped with impurities. The predictions demonstrate that the magnitude of the photovoltaic effect nonlinearly depends on the light pattern velocity and that there is an optimum velocity of the light pattern, and an optimal length of the semiconductor, for which the photovoltaic effect is most reinforced. The systematic theoretical studies presented by the authors are convincing reasons to warrant the publication of the article in the Physical Science International Journal. As a result, I think this manuscript is appropriate for publication in Physical Science International Journal provided that the following questions have been well addressed.</p> <p>(A) The order of citation numbers within the same bracket seems to be mixed up. References need to be numbered in the increasing order e.g. last sentence just before the conclusion section, citation numbers can be corrected to [8, 9, 17-19] instead of [17, 19, 9, 18, 8].</p> <p>(B) Before, equation (2.20), the word “rearrangemens” should be rearrangement ... Hence the authors are suggested to re-check the whole manuscript to ensure correctness of the data and remove all the typos.</p> <p>(C) The numerical exploration of photovoltaic structure using drift-diffusion continuum methods that combines generation-recombination models to predict photovoltaic phenomenology has been extensively investigated in the past decades. The authors had better make further review and add other similar works like the work published earlier, some examples, but not all:</p> <ol style="list-style-type: none"> 1. Z. XinYan, M. BaoXiu, G. ZhiQiang, and H. Wei, Recent progress in the numerical modeling for organic thin film solar cells, Science China Physics, Mechanics and Astronomy, vol. 54, pp. 375–387, 2011 2. E. R. Rwenyagila, A Review of Organic Photovoltaic Energy Source and Its Technological Designs, International Journal of Photoenergy, vol. 2017, Article ID 1656512, 12 pages, 2017. doi:10.1155/2017/1656512 3. L. J. A. Koster, E. C. P. Smits, V. D. Mihailetschi, and P. W. M. Blom, Device model for the operation of polymer/fullerene bulk heterojunction solar cells, Physical Review B, vol. 72, no. 1-9, article 085205, 2005 4. Etc. <p>Once such references are included, and the minor typos such as those mentioned above are removed from the text, the manuscript can be accepted for publication. The language and the selection of the journal are very satisfactory and appropriate.</p>	<p>The author thanks the reviewer for the favorable review and valuable comments. All reviewer's recommendations have been fulfilled:</p> <p>(A) Citations have been re-checked and reordered.</p> <p>(B) Whole manuscript has been re-checked for typos.</p> <p>(C) The author extended the paper introduction giving more profound survey of the problem and has included proposed references as well as another three relevant recent references.</p>
Minor REVISION comments		
Optional/General comments		