



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	Ms_ACSJ_24525
Title of the Manuscript:	Size Effects of Silver Nanoparticles on the Photovoltaic Performance of a Dye Sensitized Solar Cells.
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.

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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	Authors analysis size effect of silver nanoparticles on the PV performance of DSSC. This manuscript can be accepted for publication after major revision. 1. Please add into Introduction other paper about influence Ag NPs on the properties of polymer solar cells, e.g. <i>Journal of Modern Optics, special issue Organic Photovoltaics</i>, 61, 1767-1772, 2014. <i>International Journal of Photoenergy</i>, 2015. Volume 2015, Article ID 764938, <i>Proc. of SPIE</i>, 9502, 95020C-1, 2015. <i>Electrochimica Acta</i>, 185, 198-210, 2015. 2. Please show the architecture of all investigated devices, what this mean "O silar cycle" etc in Table 1. 3. In Table 1. Error of all PV parameters should be add. Increase of device with Ag is very small compare with reference device taking into consideration very low value of PCE obtained for all devices. 4. Please add into paper information about size of Ag. Size effect of Ag on efficiency DSSC in not precisely showed in the paper. It should be verified.	1. I have added into the introduction other paper about influence of Ag-NPs on properties of polymer solar cells. "Bartosz <i>et.,al</i> [8], reported an improved performace in photovoltaic polymer solar cells by increasing the amount of Ag in TiO₂ (by 3, 5, 7, and 10%). Higher PV performance was received by introducing TiO₂ with 5% of Ag. Also Iwan <i>et.,al</i> [9] investigated the influence of amount of silver in a hole transporting layer on the performance of a bulk heterojunction polymer solar cells. They obtained a power conversion efficiency (PCE) of 2.16% under 100mAcm⁻² light intensity with 60 μL of Ag-NPs. But along with the increase amount of Ag-NPs from 60 to 150 μL, the PCE decrease was found." 2. the architecture of all investigated photoanodes were added in table.1. 3. the error of the PV parameter were added.



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		4. The effect of silver sizes were contained in the text. “As can be seen from table 1, the performance, especially the photocurrent, and open circuit voltage of DSSCs containing Ag-NPs was significantly affected by the particle size of Ag-NPs. The PV performance decreased with increasing size of Ag-NPs from one silar cycle to three silar cycles, from table 1, the best performance was achieved using the anodes prepared with one silar cycle.”
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		