



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2014_BJAST_13654
Title of the Manuscript:	Three fresh plant seeds as natural dye sensitizers for titanium dioxide based 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.

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	- Page 2, 3.1. Absorption of natural dyes. Comments : Fig. 1 are not clear that absorption peak dominate at 440 nm for Raphanus raphanistrum, 600 and 680 nm for Lepidium sativum and 660 nm for Dianthus barbatus. Please using UV-vis rank from 300 nm (like fig.5) to check the cut off wavelength and higher 800 nm to check behaviour of dye in NIR? - Page 4. "This can be attributed to the higher interaction between TiO₂ and anthocyanin in the Dianthus barbatus extract which leads to a better charge transfer" Comments : There are not enough to discuss that a better charge transfer for Dianthus barbatus extract. Please characterize of charge transfer resistance by EIS to prove above discussion. - Page 4, fig. 3. Comments : Generally, a low current in order of mA can be generated by only TiO₂ without any dye. How to make sure that the current density in fig. 3 relates to electron generation of dyes because J showed in very low values. Please use bare TiO₂ (fabricated cell without any dye) as a reference.	Remark: please note that all changes are underlined and red-colored in the revised manuscript. Figure 1 has been plotted in the range 300 – 800 nm. It is figure 2 in the revised manuscript. This sentence has been deleted to avoid any ambiguity. The results of bare TiO₂ cell have been added to the revised manuscript. Please see page 5.



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<u>Minor</u> REVISION comments	- Page 5, 3.3. Effect of pH of Dianthus barbatus extract solutions Comments : Please describe more detail or mechanism that how pH (ions; H ⁺) effects to electron injection and improvement of DSSC.	More details have been added on the effect of pH. Please see page 6 and 7.
<u>Optional/General</u> comments		