

Review Form 1.7

Journal Name:	Asian Journal of Biology
Manuscript Number:	Ms_AJOB_98303
Title of the Manuscript:	EFFECTS OF LIGHT ON THE GROWTH AND β-carotene ACCUMULATION IN THE GREEN ALGAE <i>Dunaliella salina</i>
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:

(<https://www.journalajob.com/index.php/AJOB/editorial-policy>)

Review Form 1.7

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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. No, references are limited and very old. Author must supply other new references.</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<p>Revision of character police of different unities Titles of figures axes need revision</p> <p>2. MATERIAL AND METHODS 2.1. Microalgae strain <i>Dunaliella salina</i> was isolated from coastal waters (Indicate the properties of this region, luminosity, salinity, temperature avregae...) in the central region of Vietnam by the authors and kept in the Algae Technology laboratory belonging to the Faculty of Biology and Environmental Science, The University of Science and Education, Danang University. The microalgae strain was cultured in f/2 medium at 25°C and illuminated with white LED light with an intensity of 30 μmol photon/m²/s with a light/dark cycle of 16/8.</p> <p>2.3. Determination of Cell density and growth rate</p> <p>* Verifier the police of 2 in the unity : photon/m²/s, among all the texte</p> <p>2.4. Determination of β-carotene content</p> <p>Then, 2 mL of H₂O and 4 mL of n-hexane were added and the mixture was centrifuged at 5000 rpm for 5 min. After that, the extract in the n-hexane phase was taken and measured the optical density (ODO) at a wavelength</p> <p>3. RESULTS 3.1. Effect of light spectrum on growth and β-carotene accumulation in <i>Dunaliella salina</i> Fig. 1. Or Figure 1. In Figure 1, the IC at the point 2days (red light) is very large, I think that there is a simple</p>	

Review Form 1.7

	<p>mistake...please review the statistic and be sure</p> <p>d-1(rectify the police in all similar unities)</p> <p>Figure 2. The average growth rate (Unity on graph need revision cell?? Or other.d-1 of <i>D. salina</i> under different light spectra</p> <p>Regarding β-carotene accumulation, blue light had the most positive effect on this parameter in <i>D.</i></p> <p>In Figure 3, the title of axe need revision (growth rate or carotene content??)</p> <p>In Figure 5 the tile of axe need revision (light intensity or density???)</p> <p>In figure 6 titles of axes need revision (carotene content or growth rate and light intensity or density???)</p> <p>4. DISCUSSION</p> <p>Our results showed that red light had the best growth-stimulating effect, while blue light promoted β-carotene accumulation in <i>D. salina</i> (in the section results and discussion , you mentioned that differences between carotene contents are not significant.....).</p> <p>The emission spectrum of the red LED (625–680 nm) coincides with the photosynthetic photon absorption capacity of chl-a and chl-b pigments(you didn't showed results of chl a and chlb contents in your study, why you talk about them??) [11]. In <i>D. salina</i>, photosynthesis was shown to be maximal in the red absorption band of the chlorophyll pigments [8]????.</p> <p>. In our study, the growth rate of <i>D. salina</i> increased proportionally with light intensity. This may be because our survey range is quite low (13.5 - 40.5 $\mu\text{mol photon/m}^2/\text{s}$), has not reached the light saturation point for <i>D. salina</i>. Therefore, when the amount of energy provided to the algae increases, the algae can perform photosynthesis better without photoinhibition. Explain more this part.</p> <p>Add a conclusion for the study at the end of the discussion section</p>	
--	--	--

PART 2:

	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)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

Reviewer Details:

Name:	Nasraoui Hajaji Afef
Department, University & Country	University of Carthage, Tunisia