

ESJ Manuscript Evaluation Form

This form is designed to summarize the manuscript review that you have completed and to ensure that you have considered all appropriate criteria in your review. Your review should provide a clear statement, to the authors and editors, of the modifications necessary before the paper can be published or the specific reasons for rejection.

Please respond within the appointed time so that we can give the authors timely responses and feedback.

NOTE: ESJ promotes review procedure based on scientific validity and technical quality of the paper (not perceived the impact). You are also not required to do proofreading of the paper. It could be recommend as part of the revision.

ESJ editorial office would like to express its special gratitude for your time and efforts. Our editorial team is a substantial reason that stands ESJ out from the crowd!

Reviewer Name:	Email:
Date Manuscript Received: July 23 2016	Date Manuscript Review Submitted: August 12, 2016
Manuscript Title: Structural origin of the blue colour reflections on the wings of the Junonia Orithya Madagascarensis	
ESJ Manuscript Number: 0775/16	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a brief explanation for each 3-less point rating.

<i>Questions</i>	<i>Rating Result</i> [Poor] 1-5 [Excellent]
1. The title is clear and it is adequate to the content of the article.	4
<p><i>(a brief explanation for 3-less point rating)</i></p> <p style="text-align: center;"><i>This title can might reflect the content of the paper: Structural layers origin of the blue colour reflections on the wings of the Junonia Orithya Madagascarensis</i></p>	
2. The abstract clearly presents objects, methods and results.	4
<p><i>(a brief explanation for 3-less point rating)</i></p> <p>This article is devoted to the study of the structural layers origin of the blue reflections on the scales</p>	

of the wings of the *Junonia orithya madagascarensis*, a butterfly of the *Nymphalidae* species. The authors have proceeded by spectrophotometry and scanning electron microscope (SEM) characterization of these layers to explain the origin of the blue color of the wings. Moreover, they have also made numerical calculations to simulate the structural nature of these layers which help to support the experimental results. Indeed, from the measurements using the spectrophotometer, a main peak of reflection was obtained at 483 nm. From our calculations results we get a 515 nm for the dominant length in reflection and 510 nm for the numerical reproduction of the reflectance spectrum, respectively. These results confirm that the multilayer structure is at the origin of the blue colour of the dorsal scales of the wings of the *Junonia*. A very thin membrane is responsible for it. This membrane diffuses sunlight at its upper and inner surface. Therefore, it is called structural coloration. It is possible to consider artificial reproduction for the multilayer through a process of deposits in order to manufacture materials at nanometer scale with selective reflection.

3. There are few grammatical errors and spelling mistakes in this article.

3

(a brief explanation for 3-less point rating)

4. The study methods are explained clearly.

3

(a brief explanation for 3-less point rating)

5. The body of the paper is clear and does not contain errors.

4

(a brief explanation for 3-less point rating)

6. The conclusions or summary are accurate and supported by the content.

4

(a brief explanation for 3-less point rating)

7. The references are comprehensive and appropriate.

4

(a brief explanation for 3-less point rating)

Overall Recommendation (mark an X with your recommendation) :

Accepted, no revision needed

Accepted, minor revisions needed	x
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

This is an interesting original paper and should be published after minor revisions. The suggestions are indicated in the manuscript.

Comments and Suggestions to the Editors Only:

The suggested revisions are mandatory. This may contribute to improve the quality of the paper.

I am attaching the manuscript which contains my comments.

