Reviewer’s report

Title: Bioactivity of essential oils extracted from Cupressus macrocarpa branchlets and Corymbia citriodora leaves grown in Egypt

Version: 0 Date: 04 Jun 2017

Reviewer: Maria Graça Costa Miguel

Reviewer's report:

When Cupressus macrocarpa is reported for the first time, the authors should introduce the term "Hartw", therefore: Cupressus macrocarpa Hartw.

Either in the introduction or in the discussion of the results, the authors should use more recent references about the chemical composition of the essential oils of C. macrocarpa. For example, the references: Fahed et al (2017), Abou-Talab et al. (2016), Almarie et al. (2016); Abdelgaleil et al (2015), Badawy et al (2014), Pierre-Leandri et al (2000); Kelsey et al (2015).

Concerning Eucalyptus citriodora, the authors also should present and compare their results with more recent references.


The authors have written: EO from C. citriodora leaves is rich in monoterpenoids and thus, shows strong antioxidant activity [25, 53,54]. The EOs with higher monoterpenic compounds are ineffective [53, 54]. These two sentences are contradictories. The authors must better discuss these results.

In page 8, the authors have written:
"Citronellal and citronellol found in the EO of C. citriodora may be responsible for both its antimicrobial activity and antioxidant activity [23,25,49,50]. Elaissi et al. [49] reported inhibition zone values ranging from 10.0 ± 0.0 mm to 7.7 ± 0.6 mm against E. coli ATCC 25922 and S.aureus ATCC 25932, respectively, using absorbent disks impregnated with 10 μL of C.citriodora oil. In the current study, the oils were rich in 1,8-cineole and α-pinene, which are known for their antibacterial activity."
The last sentence is not clear, which current study? Is this the study of the authors? Is this study that reported in references 51, 52? Answering to the first question, 1,8-cineole does not predomine in the essential oil studied by the authors. Answering to the second question, the authors should not compare antimicrobial activities of essential oils with distinct chemical composition for discussing their own results.

The last paragraph of the point: Antioxidant activity, the authors have written:

"It was concluded that the volatile oils of C. citriodora may have tremendous potential as antimicrobial and insect repellent agents in food sciences in addition to their numerous uses and applications in pharmaceutical and medicinal areas".

The authors did not assay the insect repellent activity, therefore they cannot conclude that their oils can act as insect repellent agents in food sciences.

In the Conclusion:

"The EO of C. citriodora showed higher activity than the positive control did. Additionally, the activity of tested EOs was lower than that of the standard BHA used.

Which activity or which activities?

The results of all biological activities needs statistical treatments.

The chemical composition of both species depicted in two tables can constitute only one Table.

The manuscript needs major revision.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
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I recommend additional statistical review

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