Review of: "A Novel One-Pot Three-Component Approach to Orthoaminocarbonitrile Tetrahydronaphthalenes Using Triethylamine (Et_3N) as a Highly Efficient and Homogeneous Catalyst Under Mild Conditions and Investigating Its Anti-cancer Properties Through Molecular Docking Studies and Calculations"

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Potential competing interests: No potential competing interests to declare.

Comments

The manuscript entitled “A Novel One-Pot Three-Component Approach to Orthoaminocarbonitrile Tetrahydronaphthalenes Using Triethylamine (Et_3N) as a Highly Efficient and Homogeneous Catalyst Under Mild Conditions and Investigating Its Anti-cancer Properties Through Molecular Docking Studies and Calculations” has been reported. The synthesis part of the article is original. However, there are shortcomings, especially in the explanation of the catalytic cycle. There are many grammatical and typographical errors in the article.

Summary of specific changes/errors/comments to address:

There are certain typos in the article. For example;

1. Page 1, in abstract, “benzaldehydes, cyclohexanone and malononitrile” should be replaced by “benzaldehydes, cyclohexanone, and malononitrile.”

2. Page 3, “these heterocyclic” should be replaced by “these heterocyclics”.

3. Page 3, second paragraph, “The type and size of the heterocyclic compounds, together with the substituted groups on them, can affect the physicochemical properties of the medicinal compound. The type and size of the heterocyclic compounds, along with the substituted groups on these compounds, can affect the physicochemical properties of the medicinal compound”.

The same sentence is repeated twice!!!

4. Page 3, third paragraph, “two chiral centres” should be replaced by “two chiral centers”.

5. Page 3, last paragraph, “tomours” should be replaced by “tumors”.

6, Page 3, last paragraph, “natural cell death and differentiation” should be replaced by “natural cell death, and differentiation”.

7. Page 3, last paragraph, “genetics and environmental factors” should be replaced by “genetics, and environmental factors”.

8. Page 3, last paragraph, “under mild condition” should be replaced by “under mild conditions”.

9. Page 4, in Scheme 1, “1(a-l) and 4(a-l)” should be replaced by “1a-l and 4a-l”, respectively.

10. Page 4, in general information, “coupling constant” should be replaced by “coupling constants”.

11. Page 5, “malononitrile (2 mmol) and cyclohexanone” should be replaced by “malononitrile (2 mmol), and cyclohexanone”.

12. Page 5, “Afterwards” should be replaced “Afterward”.

13. Page 5, “compound 4a-4l” should be replaced by “compound “4a-l”.

14. Page 6, “In order to establish the optimum conditions,” should be replaced by “To establish the optimum conditions,”.

15. Page 6, “Pyridine and trimethylamine (Et_3N)” should be replaced by “Pyridine, and trimethylamine (Et_3N)”.

16. Page 6, “CH_3CN and $CHCl_3$” should be replaced by “CH_3CN, and $CHCl_3$”.

17. Page 6, “In order to measure the effect of temperature” should be replaced by “To measure the effect of temperature”.

18. Page 6, “Table 1, entries1-6” should be replaced by “Table 1, entries 2-6”.

19. Page 7, in Table 1, “Reactionconditions” should be replaced by “Reaction conditions”.

20. Page 7, in Table 1, “I solated yield” should be replaced by “Isolated yield”.

21. Page 8, in Table 2, entry 1, “h” should be replaced by “H”.

22. Page 8, in Table 2, entry 8, “2,4-diCl” should be replaced by “2,4-$(Cl)_2$”.

23. Page 8, in Table 2, entry 9, “3,4-diOMe” should be replaced by “3,4-$(OMe)_2$”.

24. Page 8, in Table 2, entry10, “3,4,5-triOMe” should be replaced by “3,4,5-$(OMe)_3$”.

25. Page 8, in Table 2, entry 11, “4OH” should be replaced by “4-OH”.

26. Page 9, “Tables3 and 4” should be replaced by “Tables 3 and 4”.

27. Page 9, “hydrogen donating groups” should be replaced by “hydrogen-donating groups”.

28. Page 10, “hydrogen acceptor groups” should be replaced by “hydrogen-acceptor groups”.

29. Page, 10, “Recommended values < 80% is high and > 25% is weak” should be replaced by “Recommended values < 80% are high and > 25% are weak”.

30. Page 14, “short reaction time and mild conditions” should be replaced by “short reaction time, and mild conditions”.

31. Page 15, “specialized equipment and thus” should be replaced by “specialized equipment, and thus”.

32. What is the condensation type?

33. Which type of Diels-Alder reaction took place?

34. The last step of the mechanism should be checked.

35. The mechanism is the same as in a previously published article in a scientific journal (Appl. Organometal. Chem. 2024, 38, e7305). This publication was not referenced in the manuscript.

36. The effect of the catalyst in the mechanism has not been shown. It is not shown in detail which type it activates and how.

As a result, it is not appropriate to accept the article in its current form.