

Review of: "A Novel One-Pot Three-Component Approach to Orthoaminocarbonitrile Tetrahydronaphthalenes Using Triethylamine (Et₃N) 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.

The authors report on "A novel one pot....."

The paper is suitable for publication on Qeios, but requires further major corrections:

1) The title is incredibly long; please summarise.

2) In the introduction, the authors refer to Multicomponent reactions as a tool for green chemistry protocols, yet no clear description of what MCRs are and how they are normally carried out is reported. Additionally, no comparison between what is known in the literature on the specific reactions tested and how the solution reported may be innovative is outlined. These two important pieces of information should be added to the introduction to increase the interest of the reader.

2) A fundamental question which should be addressed by the authors is how NEt₃ can be considered a green alternative to Na₂CO₃, NaOH, or other inorganic bases which are also reported in the paper. Inorganic bases have the advantage that they are easily removed from the reaction medium by filtration, while NEt₃ requires a more complex workup. Moreover, NEt₃ has a very concerning SDS sheet, is highly flammable, irritant, toxic, and corrosive! The authors fail to convince of the benefits of using this organic base as compared to inorganic ones, even if yields are lower. Please motivate more consistently this important point of the work.

2) The authors report that "many articles are introduced in the chemical...." But at the end of this sentence, no references are given. Further references should be added, such as:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6864827/>

<https://link.springer.com/article/10.1007/s11696-017-0174-z>

<https://www.mdpi.com/2073-4344/14/4/255>

- 3) Some sentences are redundant and should be summarised, both in the introduction and in the text. Moreover, very short sentences are often present which should be modified into more comprehensive and longer sentences.
- 4) The authors state that tumours are the second cause of death for many people? How many? Since it's the 2nd cause of death, there should be a number available.
- 5) Expressions such as when **we** added should be avoided.