

Review of: "Synthesis of 1, 2-Disubstituted Benzimidazoles at Ambient Temperature Catalyzed by 1-Methylimidazolium Tetrafluoroborate ([Hmim] BF₄) and Investigating Their Anti-ovarian Cancer Properties Through Molecular Docking Studies and Calculations"

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Potential competing interests: No potential competing interests to declare.

The manuscript reports on an interesting study about the synthesis of 1,2-disubstituted benzimidazoles at ambient temperature catalyzed by 1-methylimidazolium tetrafluoroborate ([Hmim] BF₄) and investigates their anti-ovarian cancer properties through molecular docking studies and calculations. The manuscript needs a detailed revision. It cannot be recommended for publication in its present form. I hope that the following points will be helpful to the authors.

1. Common analytical techniques in organic chemistry include NMR, melting point, and mass spectrometry. The authors should include mass spectrometry analysis in the abstract as well as in the experimental section.
2. The authors should demonstrate the importance and advantages of their method in the abstract by comparing it to methods described in the literature, using criteria such as yield, reaction time, etc.
3. The authors state in the abstract that these compounds have the potential to be used as drugs. Is this study sufficient to support this claim?
4. The authors should correct the ratio of the eluent (petroleum ether/ethyl acetate), which is 10:2.
5. The authors should justify the choice of the cancer cell protein studied in the introduction.
6. The authors should mention in the "Docking" section the performance of a redocking to validate the obtained results.
7. This study is based on an in silico study, so the authors are encouraged to add kinetic, toxicity, and ADMET properties.
8. Additionally, a molecular dynamics study should be performed to gain insights into the stability and lifetime of the formed complex.
9. Would it be possible to perform in vitro tests on the studied protein?
10. The English is poor and requires systematic revision.
11. The references should be revised and edited in a homogeneous manner.

