

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.

Review of the manuscript entitled "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" submitted by Abdulhamid Dehghani, Yousef Delshad, Moslem Ahmadpour, Milad Ghezelsofloo to Qeios.

The proposed subject can raise some interest in the scientific community. However, the paper needs some corrections. For this work, the following other critical remarks should be made:

1. The presentation and interpretation of the results presented in the manuscript are sometimes insufficient or, more often, incomprehensible. It is unclear why the authors consider the compounds to be promising anticancer agents.
2. There are too many typos, misused words, and obvious errors in the manuscript. For example, the title says: "1,2-Disubstituted" (but should be without spaces: "1,2-Disubstituted") and "Tetrafluoroborate" (should be "Tetrafluoroborate"). The manuscript used the incorrect chemical name of the catalyst and should be corrected to "tetrafluoroborate." (Note: The chemical formulas have not been changed in this response.)
3. The use of the abbreviation "[Hmim] BF₄" in the title is unnecessary. Additionally, the writing of this abbreviation is strange; the writing "Hmim-BF₄" would be more legible.
4. Moreover, this abbreviation is rather used for another compound, i.e., 1-hexyl-3-methylimidazolium tetrafluoroborate (see: <https://pubchem.ncbi.nlm.nih.gov/compound/1-Hexyl-3-methylimidazolium-tetrafluoroborate>). Please check which catalyst was used for the synthesis. If 1-methylimidazolium tetrafluoroborate was used, then the abbreviation "[Hmim]BF₄" is not valid.