

Expression of Concern on nine articles by H. C. Manjunatha and coauthors due to integrity concerns

Between 2018 and 2024, *Physical Review C* published nine articles [1–9] by H. C. Manjunatha and coauthors. The editors have since been alerted to concerns with the articles. The journal has undertaken an investigation to verify the issues and is publishing this Expression of Concern to alert readers. The publications listed below have concerning issues.

- (1) Mislabeling or lack of labeling of figures and tables.
- (2) Different symbols are used for the same physical quantities.
- (3) Some variables have incorrect physical units.
- (4) Lack of proper citations to the literature.
- (5) Lack of comparison with existing results in the literature, including their own, especially when they are in conflict.
- (6) Lack of explanation of which formulas were used to obtain the results, while the origins of those formulas are frequently missing.

These, and other errors, omissions, and inconsistencies, make it very difficult to reproduce the results in these papers.

We may publish further corrections for these articles if new information emerges.

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PRC Chief Editor
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- [1] H. C. Manjunatha, K. N. Sridhar, and N. Sowmya, Investigations of the synthesis of the superheavy element $Z = 122$, *Phys. Rev. C* **98**, 024308 (2018).
 - [2] K. N. Sridhar, H. C. Manjunatha, and H. B. Ramalingam, Search for possible fusion reactions to synthesize the superheavy element $Z = 121$, *Phys. Rev. C* **98**, 064605 (2018).
 - [3] H. C. Manjunatha, N. Sowmya, N. Manjunatha, P. S. Damodara Gupta, L. Seenappa, K. N. Sridhar, T. Ganesh, and T. Nandi, Entrance channel dependent hot fusion reactions for superheavy element synthesis, *Phys. Rev. C* **102**, 064605 (2020).
 - [4] H. C. Manjunatha, L. Seenappa, P. S. Damodara Gupta, N. Manjunatha, K. N. Sridhar, N. Sowmya, and T. Nandi, Quasifission and fusion-fission lifetime studies for the superheavy element $Z = 120$, *Phys. Rev. C* **103**, 024311 (2021).
 - [5] H. C. Manjunatha, P. S. Damodara Gupta, N. Sowmya, L. Seenappa, and N. Manjunatha, Systematics of heavy ion fusion with entrance channel and deformation parameters, *Phys. Rev. C* **104**, 024622 (2021).
 - [6] N. Sowmya, P. S. Damodara Gupta, H. C. Manjunatha, and T. Nandi, Accurate estimation of the neutron and fission decay widths for hot fusion reactions, *Phys. Rev. C* **105**, 044605 (2022).
 - [7] P. S. Damodara Gupta, N. Sowmya, H. C. Manjunatha, L. Seenappa, and T. Ganesh, Quasifission barrier of heavy ion fusion reactions leading to the formation of the superheavy nucleus $^{302}120$, *Phys. Rev. C* **106**, 064603 (2022).
 - [8] Reddi Rani L., N. Sowmya, H. C. Manjunatha, K. N. Sridhar, and M. M. Armstrong Arasu, Optimal incident energy of heavy ion fusion, *Phys. Rev. C* **109**, 024610 (2024).
 - [9] H. C. Manjunatha, N. Sowmya, K. N. Sridhar, and P. S. Damodara Gupta, Compound nucleus formation probability for superheavy nuclei, *Phys. Rev. C* **110**, 014601 (2024).