

Please consider the following comments that will improve the quality of the manuscript.

Major comments:

1. Ref [13] is probably forgotten to be provided in the References. This is one of the most important refs of this paper.
2. The caption of figure 2 is repeated two times while figure 3 is missing.
3. The quality of figures is too low.

Minor comments:

1. The authors must pay attention to grammatical aspects. For example, “Gori” is written sometimes with capital O sometimes with non-capital o. Using capital letters for starting a new sentence is not followed in several sentences of the text.
2. The font size is changed a few times in the text.
3. The short form of NPR is not defined in the text.
4. These following sentences should be revised:
 - Also, they predicted graphene origami-enabled metal metamaterial material properties using MD simulation and GP.
 - Only a few of the mechanical characteristics that the NPR has been demonstrated to enhance include compression and shear resistance, low frequency and energy harvesting, and high damping resistance.
 - This study illustrates how altering factors affect them.
5. In this sentence, what is [20]??
“GOri/Cu becomes an auxetic metamaterial with 60% H coverage (H_{GR}) [20]”