

Comments to Author

Dear author,

The work you have presented is very exciting for the scientific community especially those dealing with the computational and modeling. Please address the following points for better understanding of reader.

Introduction:

Comment 1

Authors should check the introduction for grammatical corrections and typo mistakes such as Line 84 double full stop, spaces after literature references such as line 29, 40, 48, 58, 66, 70, 77,81, 88, and so on.

Comment 2

2. Authors should also use the complete form and abbreviation wherever it appears first time and later on abbreviation can be used such as high-density polyethylene (HDPE) appearing in line 12, 38, 103 etc.

Comment 3

Authors should provide the relevant citation in the part of numerical theory in the support of simulation and extrusion process.

Results and Discussion

Comment 1

Figure 6: The authors should keep the same scale on x and y axis in part a & b. The axis of inset of part c is not readable.

Comment 2

Figure 7: The authors should remove the digits after decimals on X -axis in the inset. Authors should also mention part a & b in figures.

Comment 3

Figure 8: The authors should use the scale of megapascal on x-axis in part a, in part b authors should write the " literature" or reference curve and experimental curve instead of names of authors. Moreover, if possible author should use recent studies as 2001 seems very old reference. In the caption author should write 4 of methane in subscript form as conventional.

Comment 4

Figure 9: The authors should revise ligands.

Comment 5

Figure 11: Authors should apply comments regarding figure 8.

Comment 6

Figure 15: Authors should recheck this figure either its repetition or something missing.

Conclusions

Comment 1

Line 46.47: At lower shear rates, the chains exhibit an amorphous state. Still, when the shear rate increases, a gradual “opening-up” of structure occurs, in which the molecular chains remain entangled, with significant flexibility and consistent density.

Comment 2

The chain entanglements also depends on molecular weight of polymers, are the results valid for any molecular weight of polymer or any specific. Authors should specify the molecular weight or degree of polymerization of HDPE under study as well.

Comment 3

Line 472: At some place author use “methane” and at others CH_4 authors should be consistent. As they are using CH_4 in the title it is better to use it throughout the manuscript.

References

Comment 1

References needs formatting according to the style of the journal.