This paper deals with the possibility of using recycled wood of window frames for particleboards production. The window frames were experimentally produced and before being recycled into particleboards, were used in realistic conditions for one year. The window frames were produced using two types of surface coatings - clear and white wood varnish.

The manuscript is somewhat well prepared but there are few details that must be addressed. The first of which is the title, where circular economy is mentioned, but in no part of the manuscript (exerting Introduction) is the circular economy even mentioned. This is most obvious in the Results part of the manuscript where not a single word or explanation of the obtained results are given in that direction. This must clearly be dealt with either by changing the title of the manuscript, or by giving additional comments on the obtained results.

When describing the results achieved, we have tried to highlight the potential of the utilization of wooden window frames in particleboard production. Also, we talked about this in the Conclusion section, which was revised in-depth.

Here I must also say that the Conclusions part given in lines 409-420 is clearly not related to the research and must be omitted.

The Conclusion section has been rewritten.

Also, question that have not been answered in the manuscript is – Why weren't "real" refurbished window frames used for particleboards? By term "real" I mean those that were withdrawn from the use after several (decades) years. If it is because the Authors wanted to control the raw material from the start, then this must be clearly stated in the manuscript. However, the question arises whether this is a good approach, as the results are somewhat defined already at the beginning, by controlling the experiment right from the window frame manufacturing. Therefore, in my opinion the results given in this manuscript are just barely usable in terms of using wood withdrawn from usage for particleboards manufacturing on industrial scale.

We added a sufficient explanation of the aim of the research (last section in the Introduction).

As for more specific remarks, the knife mill description is almost identical in lines 136-141 and lines 163-167, so one (latter) of those descriptions should be omitted.

The redundant description has been removed.

To give the pressing diagram would have been much better than the description given in lines 153-158. The same remark goes also on the results presentation where a table(s) with the results of examined physical and mechanical properties of particleboards alongside the statistical analysis (as in Table 1), would have been more appropriate than the graphical representations on Figures 5-10.

The pressing diagram instead of text, as well as the table with mean and standard deviation values, have been added and connected to statistical evaluation results. However, we would like to keep the plots with the results achieved since they allow for easily getting into the general tendencies of the results.

At the beginning of the chapter 2.3. Characterization of panels, the Authors mention that the coating hardness and granulometric composition of wood chips were determined, but those parameters can't be considered as a part of panels characterization. Therefore, I suggest to add another subsection where the methodology of determination of those properties are given.

Sufficient comments regarding relative hardness, granulometric results, and panel properties have been added to the Results and Discussion section.

As my final remark, I must say that the Authors cited more than a few of their earlier works and that the mentions of those papers weren't necessary in terms of uplifting the overall quality of the manuscript.

Since the Introduction paragraph has been in-deep re-written, the papers that are not clearly connected to the aim of this manuscript have been removed.