Review

A Comprehensive Review on The Mechanical and Thermal Properties of Bamboo-based Composites and Their Potential Industrial Applications

I think interesting content is processed in the review, but due to English formulations and lack of structure, it's difficult to read (for me).
In my opinion, the introduction 1.0 is not of sufficient academic level to be published in MPDI journals.
In the following paragraphs, I miss the link between the chemical structure of bamboo and the described mechanical and thermal properties. I have difficulties in estimating the scientific soundness, due to a false start in the introduction.
Nevertheless, I like the reflection in paragraph 3.0. Unfortunately, paragraph 4 seems to be missing, and in the conclusions 5.0, I think the impact on recycling should be nuanced.
In this form, the manuscript is not acceptable for MDPI audience.
Please find some comments and suggestions below. I did not include all the remarks I made during reading the manuscript.

Abstract

Some sentences in the abstract need to be reformulated.

1.0 Introduction

The introduction 1.0 is not of sufficient academic level to be published in MPDI journals.

It's not clear what's meant by 'polymers replacing conventional materials'

Idem: 'these materials are easy to find, low cost, easy to design and increase productivity when compared to other conventional materials' which materials are meant?? Synthetic polymers vs metals???

'Petrochemical polymers are difficult to dissolve'???

'The problem for dissolving polymers is to combine both materials (which?) using polymers and natural fibres'?

What are 'friendly products' ??

'In addition, the use of natural resources material is to reduce the use of wood, abundance and prevent open burning by farmers leading to air pollution.' I am not sure what's the meaning of this sentence.

'**T**herefore', in line 46 misses a capital.

'Table 2 shows the natural fibre such as mechanical and physical properties.' ?? Please first introduce the chemical structure of natural fibers, before their properties.

'Exploration of technologies using bamboo is still declining'. Is that correct?

'The presence of these special properties makes bamboo fibre for reinforcing fibre in the polymer matrix.' ?

Etc.

1.1 Bamboo plant

What is 'B. vulgaris and G. scortechinii'? (okay, explained in 2.0)

1.2 The anatomy of the bamboo plant.

2.0 Bamboo plantation in Malaysia

2.1 Bamboo-based polymer composites

'Composite materials are one of the growing materials'

'In general, the selection of natural resources is because it is more environmentally friendly compared to conventional products'

2.2 Bamboo reinforced polymer thermoplastic composites.

'Many researcher studies and tries to see the potential of bamboo fibre, solving various major problems such as environmental problems, recyclability, wettability, liability and affordability on the bamboo fibres.'

'Table 4 shows the researcher who studied the combination …' ??

'Table 5 shows bamboo fibres reinforced polymer composites on their properties' ??

Line 214: 'Differential Filtering Calorimetry (DSC)' ?

Etc.

2.3 Bamboo reinforced polymer thermosetting composites.

2.4 Bamboo fibre reinforced polymer hybrid composites (no point)

3.0 Economic Value, Challenges and Future Perspective for Bamboo-based Composites

Fig. 4: typo in 'chall**a**nges'

Reflection is interesting.

5. Conclusions

'Its ability to compete with conventional materials and addition can also replace petroleum-based composite materials in various applications' ??

'The availability of these eco-friendly materials makes it easier to recycle and reduces waste'. I don't agree with this. Fabricating composites of synthetic polymers and natural fibers will probably make the recycling process more difficult.