

The authors assessed the effect of chemical structure of PCEs on their dispersing performance and water reduction capacity were assessed in β -hemihydrate gypsum (β -HH) system, by measuring the flowability of pastes and the adsorption ability of PCEs on gypsum. Results showed that the performance of PCEs in gypsum paste is related to the structural parameters of polymer molecules. Among PCEs synthesized with different monomer ratios, when the monomer ratio is 5:1 and a:b=1:1, PCE-1 exhibited a higher working efficiency, verifying the contribution of regulating structural parameters to the improvement in performances of gypsum paste. PCE-1 showed the strongest binding capacity with calcium ions due to the relatively equal amount of carboxyl groups at both ends.

The paper will be ready for publication after major revision.

Please highlight your contributions in introduction.

The introduction should be supported by recent publications on Energy-Harvesting from mdpi such as “Bistable Morphing Composites for Energy-Harvesting Applications”.

I think the introduction should be supported by:

Recent progresses in wood-plastic composites: Pre-processing treatments, manufacturing techniques, recyclability and eco-friendly assessment

Investigation of mechanical properties of dual-fiber reinforcement in polymer composite

An extensive analysis of mechanical, thermal and physical properties of jute fiber composites with different fiber orientations

Modeling of drilling process of GFRP composite using a hybrid random vector functional link network/parasitism-predation algorithm

Effect of surface preparation on the strength of vibration welded butt joint made from PBT composite

Optimization of abrasive water jet machining of SiC reinforced aluminum alloy based metal matrix composites using Taguchi–DEAR technique

Fabrication techniques of polymeric nanocomposites: A comprehensive review

All these publications discuss the industrial applications of composite materials which may support the introductions section.

The paper is well-written, I have to thank you to your effort.

What are the main features in Figure 2?

The abstract should be rewritten to reflect the significance of the proposed work. The current abstract shows a lot of background information.

Conclusion: What are the advantages and disadvantages of this study compared to the existing studies in this area?

The inspiration of your work must further be highlighted. Some suggested recent literatures should add.

Add future works as bullets.

The space between value and units may be eliminated.

Looking and wishes for the revised version.