

PhD THESIS REVIEW

Cádiz (Spain), on the 29th of October of 2023.

The PhD thesis of Saltanat Bergaliyeva, titled "Standardization of Recycled Plastic Materials for Additive Manufacturing", is a comprehensive and original work that explores the potential of using recycled polylactic acid (PLA) as a sustainable and economical material for additive manufacturing.

The thesis demonstrates a high level of scientific rigour, originality, and relevance for the field of materials science and engineering. The author has successfully achieved the objectives and hypotheses stated in the introduction and has provided valuable insights and solutions for improving the sustainability and performance of PLA as a material for additive manufacturing. The thesis is well-written, structured, and illustrated, with clear explanations, arguments, and references. The results are supported by adequate data analysis and interpretation, as well as by comparison with previous studies. The conclusions are consistent with the results and discussion and reflect the main contributions and implications of the research.

The thesis is worthy of praise and recognition for its quality and significance. It represents an important contribution to the advancement of knowledge and innovation in the field of materials science and engineering, especially in relation to polymer recycling and additive manufacturing. This is evident from the publication of the results in three papers in the scientific journal *Polymers*, with an impact factor of 5.0. The thesis also has potential applications in various industrial sectors that use PLA as a material for 3D printing, such as packaging, biomedical, automotive, aerospace, etc.

The reviewer recommends that the thesis be accepted without any modifications or corrections. The reviewer also congratulates the author for her excellent work and wishes her success in her future academic and professional endeavours.

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