

Review of: "Investigating the Mechanical and Tribological Effects of MoS₂ Reinforcement in AZ91 Magnesium Alloy: A Comprehensive Experimental Study"

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Potential competing interests: No potential competing interests to declare.

The paper titled "Investigating the Mechanical and Tribological Effects of MoS₂ Reinforcement in AZ91 Magnesium Alloy: A Comprehensive Experimental Study" can be accepted only after major revisions. The following are the corrections/justifications needed

1. Abstract needs to be reframed. More emphasis needs to be given to the work that is carried out.
2. Avoid group citations.
3. At the end of the Introduction, explain the novelty of the work in a clearer manner.
4. Include a flow chart for the methodology.
5. In the hardness test, the author mentions the Brinell test and at some point mentions the Vickers test. Which is correct? Justify in the article also.
6. There is no significant improvement observed, as per Table 3. Conduct another 3 experiments and include a graph.
7. SEM analysis is insufficient. Discuss the SEM images; scale is missing. Please include the why analysis and also refer to some papers and cite them correlating with the outcome.
8. Still more papers related to the work and methodology need to be referred.
9. After incorporating all the suggestions and providing justifications, the author needs to modify the conclusion (include the results of 3 more hardness experiments)