

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 material under investigation is relevant for industrial usage, but the quality of the manuscript needs improvement.

1. The abstract provides a good overview but could be more concise.
2. All the experimental results should be thoroughly analyzed and discussed for better understanding.
3. Up-to-date references should be added, particularly for data like the information in Table 1.
4. The images and graphs are of poor quality and hard to understand.
5. EDS is mentioned several times but not included in the paper.
6. Additional supportive experiments would be beneficial.
7. The title says Tribological effects. But no experiments related to tribology have been mentioned in the manuscript.
8. The stress-strain curves are unusual and not very typical; they should be presented together, and the parts where the stress is equal to zero should be corrected. Additionally, the micrographs in Figures 3, 4, and 5 need scale bars.