

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.

- (1) Write MoS₂ properly and uniformly everywhere
- (2) Rewrite the sentence "This study " in the abstract.
- (3) What is FSP's versatility of FSP?
- (4) Expand SFSP when used for the first time.
- (5) Identify the research gap? Establish the need for this study?
- (6) There is a confusion in the way this phrase is written - AZ91 alloy and an Mg alloy reinforced with MoS₂, this is wrong? As I understand, there is only one Mg alloy?
- (7) In Section 2 - What is the meaning of the sentence "This is only one of the many interesting and perhaps helpful sections of the text? Too many repetitions of MoS₂ in this section? Unnecessary details of MoS₂ are included. Focus only on those properties which are essential for this application? What does Table 1 represent?
- (8) Mark the parts in fig. 1 ? Clearly identify the pin?
- (9) What is H-13 tool? Give more details about the FSP process and machine? In Table 2, there is only one set of parameters? How come the optimal parameter is different from this?
- (10) What is the FSP-modified weld zone? Mark it clearly in the figures? What is the significance of Specimens 1, 2, and 3?
- (11) In Table 3, the title is not clear? It is not Sample ID, it has to be Specimen ID?
As mentioned in the text, there is no data available in Table 3?
- (12) Some unwanted text is there in some sections?
- (13) What is the specimen centrifuged at ... rpm?
- (14) Is the recrystallization temperature of Mg 25 deg C?

(15) What is the difference between fig. 6 and 7? There is no clarity? Fig. 6 title is also not clear, fig. 7 title is also not clear?

(16) Which is the spindle speed maintained at 400 rpm for all holes?

The paper lacks clarity and depth in the evaluation and discussion of results.

Care needs to be taken while writing the text, tables, and figures?

Please get the text reviewed by a native English speaker.