

# Review of: "Investigating the Mechanical and Tribological Effects of MoS<sub>2</sub> Reinforcement in AZ91 Magnesium Alloy: A Comprehensive Experimental Study"

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Potential competing interests: No potential competing interests to declare.

In the abstract, the type of method and results are explained briefly.

What percentage of MoS<sub>2</sub> reinforcement is added to the base matrix?

The type, brand, and model of the experimental equipment can be indicated for the tensile and hardness operations.

Which hardness reading is explained in the manuscript, BHN or VHN?

Authors should show the EDS and XRD analyses of the composites.

SEM and EDS explanation is required.

Fracture zone explanation is required.

The title of the topic is "Investigating the Mechanical and Tribological Effects of MoS<sub>2</sub> Reinforcement in AZ91 Magnesium Alloy: A Comprehensive Experimental Study" .....Only the mechanical effect is explained ...what about the tribological effect is not explained in the manuscript wrt different wear mechanisms.... Justify.

Overall, this article presents valuable research on FSP of AZ91 magnesium alloy with MoS<sub>2</sub> reinforcement. With minor revisions addressing the points above, it should be suitable for publication.