

# Review of: "The Influence of Hot Extrusion on The Mechanical and Wear Properties of an Al6063 Metal Matrix Composite Reinforced With Silicon Carbide Particulates"

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Potential competing interests: No potential competing interests to declare.

In this examination, there appears to be a lack of technical support between the data presented in graphs 1 and 3. The observed discrepancy is attributed to the low density of casted alloys, resulting from significant porosity in the products. Consequently, one would anticipate a considerable reduction in tensile strength compared to extruded products. However, the data reveals a minimal disparity in tensile strength between the as-cast and hot-extruded forms. This anomaly necessitates further elucidation.

Upon scrutiny of Figure 1, it becomes apparent that the size of the specimens subjected to tensile testing is not uniform. To ensure transparency and comparability, it is imperative to disclose the standards adhered to in specimen preparation and to incorporate a scale bar for size reference.

The significance of the elastic modulus in this investigation warrants clarification. With the introduction of SiC, there is a possibility of adverse effects on elastic properties rather than augmentation. A thorough confirmation of this phenomenon is essential.

The quality of Figure 3 requires enhancement. A more detailed depiction of porosity surfaces for each alloy, specifically for two distinct materials, should be included to substantiate the absence of evidence on the compressed specimen surfaces.

Further improvement in the quality of microstructures is recommended to enhance the overall clarity of the study.

To bolster the technical robustness of the manuscript, it is advised to expand the discussion section, incorporating correlation studies for a more comprehensive understanding of the observed phenomena.