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.

The author carried out work on The Influence of Hot Extrusion on The Mechanical and Wear Properties of an Al6063 Metal Matrix Composite Reinforced With Silicon Carbide Particulates.

Here are the comments as follows:

Explain briefly why the author carried out hot working rather than cold extrusion, because if they used cold extrusion, both the mechanical and tribological properties would be improved. The author has to give an explanation for carrying out hot extrusion.

Extrusion ratio is 9.0; specimen figs are required.

Why the author chose the extrusion temperature to be 500 degrees Celsius should be explained.

XRD data of aluminium 6063 and silicon carbide is missing. Include it.

Particle size of silicon carbide is missing.

Hot extrusion press fig is missing.

Stir casting process fig is missing.

Temperature and stirring speed must be clearly mentioned.

All the tests have to be conducted as per ASTM standards; the author has done one test in one standard and others in another – it's not feasible.

All the specimen dimensions are required.

Fig. 1 shows the tensile test specimens; from my point of view, all the test specimens have not been correctly processed.

Explain why all the tensile test specimens have not broken exactly at the centre – means there's no necking. Explain the type of fracture.

Explain why the tensile strength increases for all the weight percentages from 0 to 8 weight percentage; explain with a few references.

What is the significance of the compression tests here?

Include the aluminium 6063 composition.

Include the silicon carbide composition.

All the graphs have to have error bars and try to draw from the origin.

How many samples have been tested to get one result?

SEM photography has to have a scale bar.

Mention that the wear track is not visible.

Density calculation is required.

Major revision is required.