

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

Pradip Kumar Verma¹

1 Maulana Azad National Institute of Technology

Potential competing interests: No potential competing interests to declare.

In the submitted manuscript, the authors explain the influence of hot extrusion on the mechanical and wear properties of the Al6063 matrix composite reinforced with SiC particulate. After a detailed review of this manuscript, I recommend accepting the submitted manuscript after major revision. The detailed comment of the reviewer for this manuscript is as follows:

- 1. Scanning electron microscope should not be a keyword.
- 2. The authors should include a comparison table of mechanical properties for different ceramics reinforcements used with aluminium matrix in the introduction section.
- 3. The authors include the novelty of their experiment at the end of the introduction.
- 4. The authors should include the dimensions of the mould and its materials.
- 5. How were the density and porosity of the samples calculated? Please mention in the manuscript.
- 6. Why does the tensile strength increase with SiC content?
- Include elongation data for all tested samples in the manuscript and explain why it decreases with increasing SiC content.
- 8. How was the wear rate calculated?
- 9. Change the colour code of graphs 8 & 11 to differentiate between different loads.
- 10. Why is the COF approx. the same for the first 3 samples at 30N and 40N loads?