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Optimization of sliding and mechanical performance Ti/NI metal powder particulate reinforced Al 6061 alloy composite using preference selection index method

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Abstract

In this study, Ti/ Ni reinforced in AA6061 composites were prepared via a high vacuum stir casting method. The fabricated composite specimens are prepared for experimental studies as per ASTM standard and then physical, mechanical, and sliding wear characterization was conducted on different equipment. The higher confidence level (95%) obtained via experimental studies. The experimental results of the specimen have been used for optimization, and the ranking order of composite are computed via using the preference selection index method. Many researchers' results have been reported and easily computed to rank of composite composition using optimization properties such as void contents,density flexural strength, tensile strength, impact strength, wear resistance etc. The resultsreveal that the base matrix included with the equal presence of both particulates exhibits most excellent properties hence to obtained best ranked of