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# Preparation and wear characterisation of zirconium nano particle reinforced with Al356.1 aluminium alloy matrix

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## Abstract

In this research, zirconium nano particle are prepared using combustion synthesis process, zirconium nitrate and sugar crystals are taken in the ratio of 1:1.5 is stirred with distilled water and it is then heated up to $800^0$c.At this temperature zirconium nitrate is converted into zirconium nano particles. Then Al356.1 Aluminium alloy matrix composites reinforced with 0.5, 1, 1.5 and 2% volume nano particles of Zro were fabricated via stir casting method, at a temperature $800^0$c. The composite were characterized by scanning electron microscopy and wear studies are carried out at different variations (load, speed and time)

## Biography

Dr.H.C.Chittappa is presently working as an Associate Professor in Mechanical Engineering at University Visvesvaraya College Engineering (UVCE), Bangalore University, and Bangalore. He has obtained his BE in Mechanical Engineering , ME in Machine Design from UVCE, Bangalore University and PhD in Energy Absorption Behaviors of Light Weight Materials from Bangalore University. He has published more than 20 papers in reputed journals, National and International conferences. He has got 20years of teaching and 15 years of research experience. Four students perusing PhD under his Supervision.