Nonlinear thermal expansion model for SiC/Al

ABSTRACT

The thermal expansion behaviour of silicon carbide (SCS-2) fibre reinforced 6061 aluminium matrix composite subjected to the influenced thermal mechanical cycling (TMC) process were investigated. The thermal stress has important effect on the longitudinal thermal expansion coefficient of the composites. The present paper used experimental data of the thermal expansion behaviour of a SiC/Al composite for temperatures up to 370°C, in which their data was used for carrying out modelling of theoretical predictions.