

## ABSTRACT

The electrochemical behaviour of powder metallurgy (PM) Al-Mg composites, PM Al composites and PM Al-Mg alloy have been compared with standard PM Al in 3.5 wt% NaCl. The effects of alumina Saffil short fibres reinforcement in PM Al composites have been studied. The values of electrochemical parameter such as corrosion potential in mV, corrosion current density in A/cm<sup>2</sup> and corrosion rate were evaluated using Tafel analysis. Potentiodynamic polarization plots were conducted to observe the passivation phenomena. Results showed that the corrosion resistance of PM Al composite was reduced as compared to unreinforced PM Al.

**Keywords:** Aluminium composite, powder metallurgy, electrochemical behaviour