

# MODIFICATIONS OF MICROSTRUCTURE AND CORROSION RESISTANCE IN AA 2024-T3 BUTT JOINTS

**M. Mokhtari, S. TLILI, N.E BELIARDOUH, A. Boukari**

**Abstract :** An experimental investigation has been carried out, in present paper, on microstructure and corrosion resistance of weld butt of AA 2024-T3. Conventional tungsten inert gas (TIG) welding processes have been considered. Micro-hardness measurements allow pointing out a general decay of mechanical properties of TIG joints, mainly due to high temperature experienced by material. Polarization curve tests and electrochemical impedance spectroscopy, performed in this paper, allow assessing a generalized nobler behavior of weld bead with respect to parent alloy

**Keywords :** welding, Tungsten inert gas, corrosion, polarization curve test, Electrochemical impedance spectroscopy