

INVESTIGATION OF THE REPASSIVATION BEHAVIOR OF Al 7075-T6 UNDER CONSTANT BENDING LOAD AND DYNAMIC SLOW STRAIN CONDITIONS

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The present work investigates the effect of mechanical stress on the repassivation behavior of Al 7075-T6 in sodium chloride solutions. The response to electrochemically induced repassivation by means of single cycle anodic polarization was evaluated under constant bending load and dynamic conditions. Bending load was developed up to the yield strength using four point bent beam (4PPB) specimens, while dynamic strain was applied according to slow strain rate testing technique. The effect of load application methods on the electrochemical properties of repassivation is discussed and complemented by corrosion morphology analysis.