

**Effect of the potential in an electrolyte on weld
corrosion**

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ABSTRACT

Electrochemical potentiodynamic sweeps and galvanic studies are performed to determine conditions that will initiate localized corrosion in welded areas. The potential seemed to be essential with respect to where corrosion attacks occur in a welded area of carbon steel. The interpretation of the polarisation diagrams for the different parts of the weld showed that they actually had different anodic Tafel slopes and this interpretation could be used to make some predictions concerning preferential corrosion behaviour. A variance of brine composition causes a change of attacked areas in a weld.