

INFLUENCE OF CHEMICAL COMPOSITION AND MICROSTRUCTURE IN CORROSION BEHAVIOR IN MARINE ENVIRONMENT

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Abstract : The effect of the chemical composition on corrosion and the electrochemical behavior of the steel slightly alloyed prepared according to the standards was studied in the solution of NaCl 3.5% to pH 7.25. The experimental techniques used include the stationary and non stationary electrochemical techniques, to supplement the study we carried out a series of photographs per optical microscope. The objective of our work is to study some metallurgical characteristics of corrosion by NDE. The characterization of the microstructure modifications by eddy currents allows detecting mechanical and metallurgical parameters of materials will be compared to the results of electron microscopy and micro-hardness.

Keywords : corrosion, immersion, carbon rate, Eddy Current, micro-hardness.