Corrosion inhibition of carbon steel in acidic solutions

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The corrosion problem is of a great importance, which faced the world from the last years until now, we can’t hide this problem from our live but we can reduce “inhibit” it in the metals by several methods as the environment need. This work discusses the corrosion of C- steel in 1 M HCl.This work consists of three basic chaptersChapter one: “INTRODUCTION “This chapter discusses: corrosion theory, causes of corrosion, forms of corrosion, corrosion migration, types of inhibitors, Literature survey of corrosion of C- steel and aim of this study.Chapter two: ”EXPERIMENTAL AND TECHNIQUES”It includes the chemical composition of the investigated material, preparation of the used HCl solution, the used derivatives, solutions and procedures used for the corrosion measurements such as a weight loss and electrochemical techniques.Chapter three: “RESULTS AND DISCUSSION”It deals with the results obtained and their discussion and this chapter is divided into five sections:Section (A):Evaluation of the inhibitor efficiency by weight loss method for all the derivatives in 1 M HCl at 30±1 °C reveled that the inhibitor efficiency increases with the concentration. from these studies the order of inhibition 2 > efficiency of increase in the compounds 1-4 in 1 M HCl is found to be:1 > 2 > 3 3