
A REVIEW STUDY ON CORROSION & ITS PREVENTION IN THE OILFIELD EQUIPMENT

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ABSTRACT

Corrosion is a critical failure in the petroleum sector that must be considered in the design of oilfield equipment in order to not only reduce economic losses but also to keep the resources safe and secure. As a result, different experimental and numerical investigations were conducted in order to better understand the processes and rules of corrosion types that occur in the oil and gas production areas, as well as the variables that influence these kinds. The present study aims to examine the many kinds of corrosion that have occurred in oilfield and flow line equipment, as well as how they may be avoided. The impact of a variety of difficult working environments, such as the presence of high levels of corrosive gases like carbon dioxide (CO₂) and hydrogen sulfide (H₂S), is also taken into account. In addition, several kinds of corrosion protection techniques, such as inorganic inhibitors (e.g., anodic and cathodic protection methods), organic inhibitors (e.g., film forming or coating), and environmental conditions (e.g., scavengers and biocides), are extensively discussed.

KEYWORDS: *Corrosion Inhibitors, Sweet Corrosion, Sour Corrosion, Oxidation Corrosion.*

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