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AIM OF THE WORK

The aim of the present investigation was to prepare and evaluate organic compounds for their protective action on carbon steel, under conditions which nearly simulate those prevailing in petroleum industry. The criteria of choosing these compounds were its availability in local cheap sources, thermal stability, chemical stability both in acidic and basic media, and stability against salts specially those encountered in water associated with crude oils .

The mechanism of corrosion inhibition by organic compounds is still subject to contraversy. It was, therefore, desirable to understand the relation between inhibition and structure of the prepared compounds, and to support or dispute the different theories in this respect .

With these targets in view, fourteen compounds were thus prepared by modifying epoxidized linseed oil and epoxidized oleic acid with aliphatic amines of different chain lengths, aniline and three of its para-substituents .