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Nevzat KÜLCÜ  
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28. ULUSAL  
**KİMYA  
KONGRESİ**  
ÖZET KİTABI  
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## GREEN APPROACH TO CORROSION INHIBITION OF MILD STEEL IN SULPHURIC ACID SOLUTION BY THE EXTRACT OF OLEA EUROPAEA L. LEAVES

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A large number of organic compounds are known as effective corrosion inhibitors for mild steel [1-3]. However, most of these compounds are expensive and easily lead to serious environmental problems. Therefore, there is a need to develop a new class of corrosion inhibitors being inexpensive and eco-friendly. The use of natural products, derived from extracts of leaves, as corrosion inhibitors has received strong preference due to their low cost, biodegradability and non-toxic nature. Many recent researches have been made on the inhibitive effect of some plant extracts [4-8].

The inhibitive action of the extracts of olive (*Olea europaea* L.) leaves against corrosion of mild steel in 1 M H<sub>2</sub>SO<sub>4</sub> medium was investigated by using electrochemical techniques such as potentiodynamic polarization, linear polarization and electrochemical impedance spectroscopy (EIS). The effect of temperature, immersion time and acid concentration on the corrosion behaviour of mild steel in 1 M H<sub>2</sub>SO<sub>4</sub> with addition of extracts of olive leaves (OLE) was studied. The adsorption isotherm for the adsorption onto the metal surface of the inhibitor was determined by utilizing the obtained data. Results obtained from several measurement techniques revealed that OLE could serve as an effective inhibitor towards the corrosion of mild steel 1 M H<sub>2</sub>SO<sub>4</sub> medium.

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