



## Cathodic Protection of Pipe Lines Against Some Microbial Corrosion

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Book Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | The study has been done at University of Tikrit/ College of Science/ Biology department/ Environmental Laboratory, from September/ 2013 to June/ 2014. The study focuses on carbon steel pipes. Soil samples were taken from three different regions: Soil 1: Loamy sand, Soil 2: Sandy loam and Soil 3: Sand, these three samples were taken from depth 0-50 cm. Corrosion of the underground pipes is becoming serious problems both in chemical plants and public utilities, so cathodic protection had been used to eliminate corrosion, soil texture has a significant effect on corrosion rate, the highest value of corrosion was (13.637 %) in soil 2, while the lowest value was (9.383 %) in soil 3. Cathodic protection has a significant effect on decreasing corrosion rate, whereas the corrosion of protected pipe was (1.462 %) while the corrosion of the pipe buried in the same circumstances but without protection was (11.267%). *Pseudomonas aeruginosa*, *Enterobacter cloacae* and *Staphylococcus aureus*, these three types of bacteria oxidize the iron, that means it is corrosive. These findings may strongly suggest that iron oxidizing bacteria are indeed very corrosive. | Format: Paperback | Language/Sprache: english | 100 pp.



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