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Evaluation of Corrosion Caused by Biogenic Sulfuric Acid (BSA) on the Concrete Structures of Sewerage Systems: Chemical Tests

Authors: M. Cortés, E. Vera, O. Rojas

Abstract: The research studies of the kinetics of the corrosion process that attacks concrete and occurs within sewerage systems agree on the amount of variables that interfere in the process. This study aims to check the impact of the pH levels of the corrosive environment and the concrete surface, the concentrations of chemical sulfuric acid, and in turn, measure the resistance of concrete to this attack under controlled laboratory conditions; it also aims to contribute to the development of further research related to the topic, in order to compare the impact of biogenic sulfuric acid and chemical sulfuric acid involvement on concrete structures, especially in scenarios such as sewerage systems.

Keywords: acid sulfuric, concrete, corrosion, biogenic

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