CORROSION PROTECTION

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ABSTRACT

Destructive of metal by other than mechanical means is defined as corrosion failure and is the result of a destructive attack by chemical or electrochemical reactions with its environment.

There are two different types of environment effects in this project and the objective is mainly to determine the best composition of Mg-Zn anode for buried pipes. Firstly we have the Sodium Chloride (NaCl) environment effects on corrosion. Out of 10 pipe samples, 7 were protected with different composition of Mg-Zn. The remaining pipe samples were not protected at all. The pipes were buried in different environment for a month before measuring its weight loss. Next, the use of Sodium Hydroxide (NaOH) as corrosion accelerator. With the same quantity of pipe samples and composition of Mg-Zn, the pipes were buried for four months in different environment.

The important gain of this project is not only focused on the composition of Mg-Zn itself but the effects of NaCl and NaOH that may or may not be suitable for the anodes.

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