Short Communication

Corrosion Investigation of Reinforced Concrete Under Qinghai Salt Lake Environment By EIS

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In this work, we studied the corrosion behavior of the reinforcing steel in salt lake water with various immersion time by the measurement of electrochemical impedance spectroscopy (EIS). We found that the polarization resistance and capacitive loop decreased when increasing the immersion time. Moreover, the corrosion process was also influenced by the temperature of the salt lake water. The generation, growth and break of the passivation film on the embedded steel was investigated according to the dependence of the temperature and immersion time.

Keywords: Concrete; Corrosion; Electrochemical impedance spectroscopy; Salt lake

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