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Corellation between Soil Electrical Resistivity and Metal Corrosion Based on Soil Types for Structure Designs

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Abstract : Soil resistivity measurements are an important parameter employed in the designing earthing installations. Thus, The knowledge of soil resistivity with respect to how it varies with related parameters such as moisture content, Temperature and depth at the intended site is very vital to determine how the desired earth resistance value can be attained and sustained over the life of the installation with the lowest cost and effort. The relationship between corrosion and soil resistivity has been investigated in this work. Varios soil samples: Sand, Gravel, Loam, Clay and Silt were collected from different spot within the vicinity.

Keywords : Corrosion, resistivity, clay, hydraulic conductivity
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