

**O 54. EFFECT OF ACID RAIN ON BUILDINGS AND BUILDING MATERIALS**

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**ABSTRACT:** Increasing industrialization and constant change, improving living conditions, bringing air pollution in every aspect of human life and has been negatively affected. It affects human health, all other living things and man-made objects. In this study, our aim is to focus on the structures of air pollution. In particular, the effects of acid rain on buildings were investigated. Even if the effects of acid rain are not observed in the short term, it has been determined that there are serious damages, discoloration and deformations on historical structures. Acid rains cause deterioration in structures by falling on the structures in the form of sulphuric acid and nitric acid drops, which are formed as a result of the reaction of fossil fuel wastes increasing with industrialization in the water cycle. Sulphur-oxide and nitrogen-oxide emissions cause acidification in the atmosphere. In order to reduce acid rain, forests and green areas should be protected and increased, unnecessary vehicle use in transportation should be minimized, the use of natural gas for heating should be increased, and the sulphur content in fuels should be reduced.

**Keywords:** *Acid Rain, Acid Rain in Structural Materials, Structural Material Deformation, Acid Rain Effect*