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**FIM 117**  
**CHARACTERIZATION OF UREASE FROM SOIL**  
**BACTERIAL ISOLATES FOR CONCRETE**  
**ENHANCEMENT**

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**ABSTRACT**

Ureases are a group of enzymes that hydrolyse urea producing carbon dioxide and ammonia, involving in increase in pH. The hydrolysis of urea by the enzymes urease is unique such that one of the few biologically occurring reactions that can generate carbonates. Bacteria are incredibly diverse and many species contribute to the precipitation of mineral carbonate in various natural environments. These microorganism have shown their importance in bio cementation in the construction industry such as the enhancement and durability of cementitious material, improvement in sand properties, restore of sandstone properties, covering of cracks in concrete, highly durable bricks production. These work examined the characterization of urease form soil bacteria isolates for concrete enhancement using bacteria isolated from the soil. Soil samples were collected from block industries within Minna metropolis, Niger state and transported to Federal university of Technology. A 10-fold serial dilution was carried out by the addition of one gram (1g) of the soil samples into nine millilitres (9 ml) of sterile distilled water,