EFFECT OF BENZOATE, NITRITE, ASPARTAME AND CARMOISINE COMPOUNDS ON EXPERIMENTAL ANIMALS

by

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B.Sc. Agric. Sci. (Agric. Biochem.)

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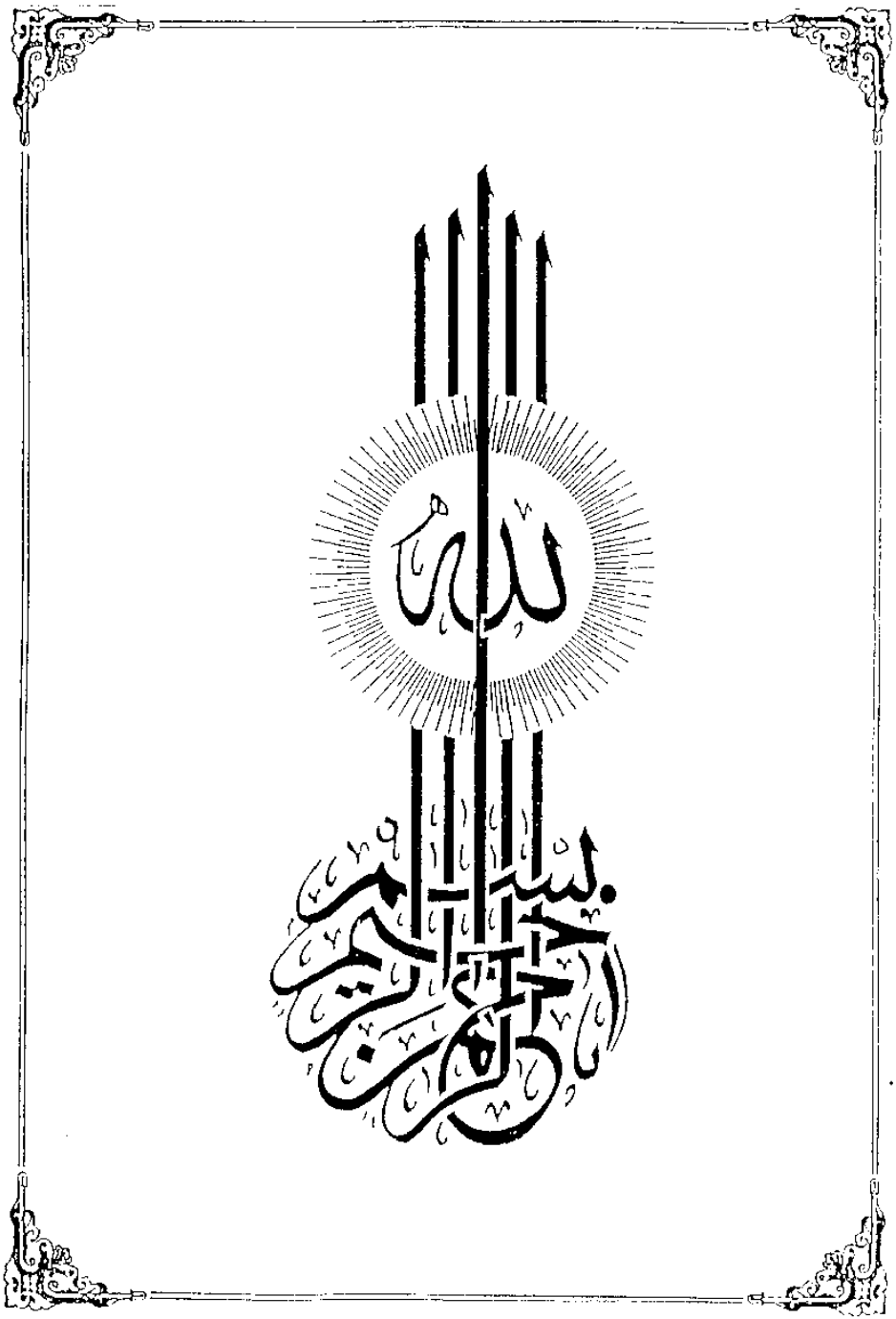

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ABSTRACT

MOHAMED SAYED AHMED SALAH HAKIL. **EFFECT OF BENZOATE , NITRITE , ASPARTAME AND CARMOISINE COMPOUNDS ON EXPERIMENTAL ANIMALS**

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Different levels of benzoate, nitrite, aspartame and carmoisine which are used as food additives were evaluated for their effects on growth, liver function, kidney function, haematological analysis, serum constituents (glucose, total protein, globulin, total lipids and total cholesterol) and protein pattern of rats. The materials were placed in the drinking water daily for 60 days. The results revealed that ingestion of the above mentioned food additives retarded growth, increased sGPT (ALT) , sGOT (AST) , alkaline phosphatase activity, total bilirubin, urea, creatinine, uric acid total protein and globulin in serum and decreased total lipids, total cholesterol, haemoglobin, RBC and WBC. Also the results revealed that polyacrylamide gel electrophoresis technique (PAGE) showed appearance of some new bands in the serum protein of rats as a result of food additives (benzoate, nitrite and aspartame) treatment.

Key words : Benzoate, nitrite, aspartame, carmoisine, growth, liver function, kidney function, haematological analysis, serum constituents

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