E 36

# PURIFICATION OF ∝-GALACTOSIDASE FROM COCONUT ENDOSPERM BY HYDROPHOBIC INTERACTION CHROMATOGRAPHY

**C. P. D. W. Mathew** *and* **K. Balasubramaniam**
*(Dept. of Biochemistry, Faculty of Medicine,*
*University of Colombo, Colombo* 8)

A hydrophobic gel was prepared by binding ε-amino caproic acid to cyanogen bromide activated Sepharose 4B and covalently linking aniline to caproic acide using carbodiimide. This hydrophobic gel had a high capacity for ∝-galactosidase (0.5 mg/ml). The ∝-galactosidase (∝-D-galactosidase galactohydrolase; E.C. 3.2.1.22) purified by hydrophobic chromatography was shown to be homogeneous by polyacrylamide gel electrophoresis and by isoelectric focusing. The specific activity increased from 50 milliunits/mg protein to 24,500 milliunits/mg protein. The enzyme was purified 490 fold and the yield was 75%.

The amino acid composition of the enzyme was determined. Cyanogen bromide fragments were separated by HPLC. The ∝-galactosidase modified by reduction and by alkylation was studied by gel filtration for chain length.

This work was supported by NARESA (RGB/82/25) and University of Colombo.