

E2-27 Kinetic properties of partially purified invertase from *Woodfordia fruticosa* (Malitta)

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In Sri Lanka, the principal sources of Invertase enzyme at present are bakers, brewers, and distillers yeast.

However, there is adequate literature evidence to show that for the fermentation processes in the manufacture of Arishta (a drug used in Ayurveda) *Woodfordia fruticosa*, (Malitta, Lythraceae) flowers are used as an invertase source. In this paper kinetic properties of partially purified endogenous Invertase from *Woodfordia fruticosa* are presented.

Woodfordia fruticosa flowers were sterilized using 5% H₂O₂ (v/v) in sterilized distilled water. Inoculum obtained from sterilized flowers was cultured and examined for the presence of any microflora. Invertase was extracted from sterilized flowers, Ammonium sulphate (50-90%) pellet was obtained and dialysed. The enzyme was partially purified by batch wise adsorption technique.

The following kinetic experiments were performed using partially purified enzyme: (1) Variation of Invertase activity with pH; (2) Progress curve of the enzyme; (3) Thermal denaturation.

Optimum pH for enzyme assay is between pH 4-5. Formation of the product by the enzyme was continued for 3h and was linear for an initial period of 2h. The enzyme is inactivated above 80°C.