ABSTRACT

Inhibitory effect of released end products on the activity of cellulolytic enzymes was comparatively studied on both natural and synthetic substrates. Accumulation of the end products upto a certain concentration which varies with respect to the specific enzyme loading (U/mL), led to the inactivation of the enzymes in saccharification mixture. Overall percentage saccharification of natural and synthetic substrate due to feedback inhibition of sequentially added cellulolytic enzymes was found 23.6% and 29.4% respectively. Variable concentrations of cellulolytic enzymes were added sequentially in order to overcome the inhibitory effect of the released end products during saccharification. This resulted into a significant increase in percentage saccharification of both natural and synthetic substrate upto 33.6% and 34.5% respectively.