

Immobilization of Extracellular Xylanase from *Streptomyces* sp. 45 I-3 for Hydrolysis of Corncob Xylan

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Abstract

Xylan extraction from corncob is done by using alkaline as solvent. Xylan extraction from corncob could give the yields as 10.9%. One percent of corncob xylan is used as substrate to produce the xylanase, compared to oat spelt xylan. Immobilization of xylanase was performed using 1% EudragitTM S100 solution (w/v), with 5:1 volume ratio of xylanase and 1 % EudragitTM S100 (w/v). Activity of the immobilized xylanase was decreased to 23.97% compared with free xylanase. Immobilized xylanase have optimum pH and temperature at 6.0 and 40°C respectively, have also thermal stability at 30–40°C for an hour. Immobilized xylanase could be reused, but its activity decreased to 52.38% after 3 times application.

Key words : xylanase, *Streptomyces*, amobile