Purification of Aspergillus niger Xylanase Produced in Solid State Fermentation

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Xylanase catalyzes the hydrolysis of the xylan backbone to xylooligosaccharides. A variety of microorganisms, including bacteria, yeast and filamentous fungi, have been reported to produce xylanase. For the production of enzyme, solid state fermentation (SSF) offers advantages over submerged fermentation (SmF). In this study, xylanase was produced by A. niger KK2 in SSF with rice straw and extracted with buffer and then concentrated by ultrafiltration. Xylanase was purified by ion–exchange chromatography methods in FPLC system. Purified xylanase was characterized and its apparent molecular weight was about 24 kDa, as estimated by SDS–PAGE.