

عنوان مقاله:

Characterization of Highly Active Keratinase Procuder Bacillus cereus KK69 for Biological Degradation of Feather Waste

محل انتشار:

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خلاصه مقاله:

A Bacillus cereus species, with highly active keratinase have been isolated from chicken feather waste. The keratinase is used to valorise feather containing approximately 90% protein, mostly keratin which is hard-to-degrade and insoluble in water. Although there are many old methods for decomposing feather such as incineration, burying, and chemically, enzymes have shown that are to be useful. This study focuses on characterizing the microorganism and its keratinase enzyme where the microorganism that produces enzyme can degrade more than 90% of the initial chicken feather in 2 days. Optimum working conditions of the enzyme is determined. Enzyme shows maximum activity at pH 9 and 50°C. Bioinformatic analysis of Bacillus cereus KK69 genome revealed that there are many possible proteases for degradation of feather. Comparing to literature, this microorganism have displayed that produces highly active keratinase. Beside proteases, industrially important other enzymes also have been screened .from annotations

کلمات کلیدی:

Bacillus cereus, industrial biotechnology, chicken feather degradation, protease, keratinase enzyme

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<https://civilica.com/doc/992869>

