

PATENT NO. 382514
A PROCESS FOR HYPERPRODUCTION OF CATALASE ENZYME FROM
NOVEL EXTREMOPHILIC BACTERIUM GEOBACILLUS
EXTREMOCATSOOCHUS MTCC 5873 AND STRAIN THEREOF

APPLICATION NO. 362/DEL/2014

APPLICANT

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ABSTRACT

The present invention provides a novel extremophilic bacterial strain, *Geobacillus extremocatsoochus* deposited under Budapest Treaty at Microbial Type Culture Collection (MTCC) with accession number MTCC 5873. The *Geobacillus extremocatsoochus* MTCC 5873 strain of the present invention is capable of growing and producing high amount of catalase in simple medium at broad temperature and pH range and also in the presence of organic solvents. The invention also discloses a process for hyperproduction of thermostable and acid-alkali stable catalase enzyme from *Geobacillus extremocatsoochus* MTCC 5873 strain. Process of obtaining adapted *Geobacillus extremocatsoochus* MTCC 5873 strain in pure form is also disclosed. The invention further discloses a simple and economical medium and process for hyper-production of thermostable and acid-alkali stable catalase enzyme from *Geobacillus extremocatsoochus* MTCC 5873 strain. The catalase enzyme of the present invention has wide applications in several industrial sectors such as food, dairy, pulp & paper and textile industries.

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CLAIM 1

A bacterial strain of *Geobacillus extremocatsoochus* having accession number MTCC 5873, deposited at Institute of Microbial Technology, Chandigarh capable of growing and producing catalase enzyme at a broad temperature of 10-90°C and pH of 3-12 and in presence of various organic solvents.