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*Title: PROCESS FOR SUBMERGED CULTIVATION OF FUNGAL STRAIN RHIZOPUS  
ARRHIZUS CNMN FD 03, PRODUCER OF LIPASES*

*Patent/project number: Patent no. MD 4828, 2022.10.31*



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**Category:** A Biotechnology

**Description:** The invention relates to biotechnology, and in particular to a process for submerged cultivation of *Rhizopus arrhizus* CNMN FD 03 fungal strain, producer of lipases. The process includes the preparation of a spore suspension of the strain grown for 30 days on a malt-agar medium, inoculation of the suspension in an amount of 5 vol.% in a nutrient aqueous medium containing, g/L: soy flour – 35.0, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> – 1.0, KH<sub>2</sub>PO<sub>4</sub> – 5.0, with the simultaneous addition, as a biostimulator, of 0.005-0.015 g/L of heterometallic compound [Ca(L)<sub>3</sub>][Co(NCS)<sub>4</sub>], where L – dimethylpyridine-2,6-dicarboxylate, and cultivation with continuous stirring at 180- 200 rpm at the temperature of 28-30°C for 24 hours.

The result of the invention consists in increasing the biosynthesis of lipolytic enzymes by 34.0...78.4% compared to the control, and reducing the duration of cultivation of the strain by 24 hours.

The invention can be used in the microbiological industry for obtaining lipolytic enzymes with wide application in the food industry, production and processing of fats and vegetable oils, in medicine as a therapeutic and diagnostic agent.

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**State of development:** laboratory

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