

**Title:** PROCESS FOR SUBMERGED CULTIVATION OF STRAIN LENTINUS EDODES (BERK.) SING. CNMN-FB-01

**Patent/project number:** Patent no. MD 4843, 2023.01.31

**Author/s:** CILOCI Alexandra, DVORNINA Elena, RUDIC Valeriu, BULHAC Ion, URECHE Dumitru, COCU Maria

**Institution:** Technical University of Moldova, Institute of Microbiology and Biotechnology;  
Moldova State University, Institute of Chemistry

**Category:** A

**Description:** The invention relates to biotechnology, namely to the submerged cultivation of *Lentinus edodes* (Berk.) Sing. CNMNFB-01 fungi strain, producer of biomass. The method for submerged cultivation of *Lentinus edodes* (Berk.) Sing. CNMN-FB-01 fungi strain includes the inoculation of seed material in the amount of 10% v/v into a nutrient medium, containing, g/L:  $\text{NH}_4\text{NO}_3$  - 0.20,  $\text{KH}_2\text{PO}_4$  - 1.30,  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  - 0.35 and supplementary, as a biostimulator, the heterometallic compound tris(2,6-dimethyl pyridinedicarboxylate-1kONO)-di- $\mu$ -(isothiocyanato-1.2kN)-(diisocyanato-2kN)barium(II)cobalt(II) - 0.005-0.015, beer wort 5°Balling the rest, and cultivation with continuous stirring at a temperature of 28-30°C for 144 hours.

The technical result of the invention consists in reducing the duration of cultivation by 48 hours and increasing the production of biomass by 35.7-38.2%.

The invention can be used for producing medicinal preparations with curative and nutraceutical properties. The inventions were created based on scientific results obtained within the project 20.80009.5007.28 "Development of new multifunctional materials and effective technologies for agriculture, medicine, technique and the educational system based on "s" and "d" metal complexes with polydentate ligands" funded by NARD, Republic of Moldova.

State of development: laboratory

**Contact:** Ciloci Alexandra, 079253061; 079976175, E-mail: [alexandra.ciloci@imb.utm.md](mailto:alexandra.ciloci@imb.utm.md)

**Presentation link:** <https://utm.md/en/>