PROCESS TO OBTAIN BIOTECH PRODUCTS THROUGH THE CULTIVATION OF MICROORGANISMS OF *REINO FUNGI* USING A MEDIUM OBTAINED FROM WASTEWATER SLUDGE

Offering Organization:	Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.
Type of Organization:	Public Research Center
Development Stage:	Commercial Concept Tests
Desired Relationship:	– Technological research and development financing (technological partner) – Specialized application tests – Creation of a new company (Joint Venture) for the commercialization of the products outlined herein – Licensing of patents
Sector:	Environmental
Area of knowledge:	Water Treatment
Key words:	Water treatment, wastewater, residual water, organic sludge, residual sludge, *reino fungi*

DETAILED DESCRIPTION:

Problem to be solved:

Common technologies for wastewater treatment generate large amounts of organic sludge. This sludge is disposed of by dispersing it over land, placing it in special confinement, throwing it into the sea or incinerating it. The costs of sludge treatment and disposal can represent half of the overall cost of wastewater treatment.

Solution:

This invention relates to the use of primary, secondary, and tertiary sludge from the treatment of domestic, municipal and industrial wastewater as a nutrient for the cultivation of eukaryotic microorganisms from *reino fungi* such as fungi and yeasts, as well as to the conditioning process of said sludge.

New and Innovative Aspects:

To facilitate the handling of wastewater and avoid potential environmental issues, sludge properties are modified using treatments that make it more suitable for reuse or disposal. Treatments include disinfection, stabilization, spreading, accommodation, drainage, final drying, combustion and others, yielding liquid, solid, dried and/or compostable sludge.

TECHNICAL CHARACTERISTICS:

The process of obtaining a " liquid culture medium for yeasts from residual sludge" consists of seven stages, as described below:

1. Drying of the sludge
2. Grinding of the dried sludge
3. Hydrolysis of the sludge
4. Obtaining the supernatant
5. Propagating the pre-inoculum
6. Propagating the inoculum
7. Obtaining the product

Main advantages derived from its utilization:

– Contributes to ecological disposal of sludge from water treatment.
Applications: – Water treatment
INTELLECTUAL PROPERTY
– Patent granted in 2014, valid until 2025 – JL/a/2005/000057

ABOUT THE OFFERING ORGANIZATION	
Presentation:	El Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C. (CIATEJ) is a public research center that belongs to the national technology development and innovation network, the National Council for Science and Technology (CONACyT). CIATEJ is focused on the agricultural, food, health, and environmental sectors with an emphasis on the application of innovative biotechnology.
Contact Information:	Mtro. Evaristo Urzúa Esteva - eurzua@ciatej.net.mx