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Organization	Institute of Chemistry, Institute of Microbiology and Biotechnology, Institute of Applied Physics, Chisinau, Republic of Moldova
Patent / patent application title	NITRATE OF 2,6-DIACETYLPIRIDINE-BIS (PICOLINOYLHYDRAZONE) - BIS (AQUA)IRON(III) – HYDRATE(1/2,5) WITH STIMULATING PROPERTIES ON SYNTHESIS OF EXOCELLULAR LIPASE IN FUNGAL STRAIN RHIZOPUS ARRHZISUS CNMN FD 03 AND NUTRIENT MEDIUM FOR CULTIVATION
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Patent / patent application N°	Patent application No. a 2021 0014, 29.03.2021
Description	<p>Conform invenției, se revendică compusul coordinativ mononuclear nitrat de 2,6-diacetilpiridină-bis-(picolinoil hidrazonă)-bis-(aqua)fier(III) – apă (1/2,5) cu formula $[\text{Fe}(\text{H}_2\text{L})(\text{H}_2\text{O})_2](\text{NO}_3)_3 \cdot 2,5\text{H}_2\text{O}$, unde H2L reprezintă 2,6-diacetilpiridină bis(picolinoilhidrazonă). Se revendică și mediul nutritiv nou pentru cultivarea submersă a tulpinii de fungi <i>Rhizopus arrhizus</i> CNMN FD 03 în componența căruia se include suplimentar, în calitate de stimulator al biosintezei lipazelor exocelulare compusul coordinativ revendicat, în următorul raport cantitativ al componentelor (g): făină de soia – 35,0; $(\text{NH}_4)_2\text{SO}_4$ – 1,0; KH_2PO_4 – 5,0; $[\text{Fe}(\text{H}_2\text{L})(\text{H}_2\text{O})_2](\text{NO}_3)_3 \cdot 2,5\text{H}_2\text{O}$ – 0,005...0,015; apă potabilă – până la 1 L; pH inițial – 8.</p> <p>Biostimulatorul asigură sporirea biosintezei lipazelor cu 17,4...82,7% și reducerea duratei de cultivare a producătorului cu 24 h.</p> <p>According to the invention, a novel coordination compound of 2,6-diacetylpyridine-bis(picolinoylhydrazone)-bis(aqua)iron(III)-hydrate(1/2,5) with the formula $[\text{Fe}(\text{H}_2\text{L})(\text{H}_2\text{O})_2](\text{NO}_3)_3 \cdot 2,5\text{H}_2\text{O}$, where H2L represents 2,6-diacetylpyridine bis(picolinoylhydrazone), is claimed. A nutrient medium is claimed, for submerged cultivation of <i>Rhizopus arrhizus</i> CNMN FD 03 fungal strain containing soy flour, $(\text{NH}_4)_2\text{SO}_4$, KH_2PO_4, water and the above-mentioned stimulant in the following quantitative ratio of components (g): soy flour – 35,0; $(\text{NH}_4)_2\text{SO}_4$ – 1,0; KH_2PO_4 – 5,0; $[\text{Fe}(\text{H}_2\text{L})(\text{H}_2\text{O})_2](\text{NO}_3)_3 \cdot 2,5\text{H}_2\text{O}$ – 0,005...0,015; potable water – up to 1 L. pH I – 8.</p> <p>The biostimulator ensures the increasing of lipases biosynthesis by 17,4...82,7% and reduction of duration of cultivation of producer by 24 h.</p>
Domain	Biotechnology; Industrial Microbiology