

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202331035652 A

(19) INDIA

(22) Date of filing of Application :23/05/2023

(43) Publication Date : 26/05/2023

(54) Title of the invention : NOVEL FERMENTATION PROCESS TO YIELD VALUE ADDED G-TERPINENE USING BAKER'S YEAST FROM SUGARCANE BAGASSE AS A SUBSTRATE

<p>(51) International classification :C12N1/20</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Brainware University, Kolkata Address of Applicant :398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West Bengal 700125 -----</p> <p>-----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p>1)Dr. Sayantan Ghosh Address of Applicant :HOD and Assistant Professor, Department of Biotechnology, Brainware University, Barasat Campus. 398, Ramkrishnapur Road, Barasat, Kolkata 700125. -----</p> <p>-</p> <p>2)Dr. Prashant Shukla Address of Applicant :Assistant Professor, Department of Biotechnology, Brainware University, Barasat Campus. 398, Ramkrishnapur Road, Barasat, Kolkata 700125. -----</p> <p>-</p> <p>3)Dr. Anusuya Debnath Address of Applicant :Assistant Professor, Department of Biotechnology, Brainware University, Barasat Campus. 398, Ramkrishnapur Road, Barasat, Kolkata 700125. -----</p> <p>-</p> <p>4)Dr. Paramita Ghosh Address of Applicant :Assistant Professor, Department of Biotechnology, Brainware University, Barasat Campus. 398, Ramkrishnapur Road, Barasat, Kolkata 700125. -----</p> <p>-</p>
--	--

(57) Abstract :

The proposed invention introduces a novel fermentation process for the production of value-added γ -terpinene using Baker's yeast and sugarcane bagasse as a substrate. This sustainable biotechnological approach aims to address the limitations of traditional methods by efficiently converting sugarcane bagasse, a waste byproduct of the sugar industry, into a valuable compound. The fermentation process optimizes key factors such as yeast strain selection, substrate pretreatment, and culture conditions to maximize γ -terpinene production. By utilizing Baker's yeast as the microbial host and sugarcane bagasse as the substrate, the invention offers several advantages, including a reliable and well-characterized fermentation platform and the utilization of a renewable and cost-effective feedstock. The proposed process not only provides a greener alternative to conventional petrochemical-based production methods but also contributes to the circular economy by repurposing agricultural waste. The resulting γ -terpinene has diverse applications in fragrance, flavor, and pharmaceutical industries, offering market opportunities while promoting sustainability and reducing environmental impact. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 21 No. of Claims : 10