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## Bioethanol production from cheese whey using yeast

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Cheese whey is by-product of dairy industry. It represents an important environmental problem because of its high volumes produced and high organic matter content. In this study, pre-hydrolyzed cheese whey was utilized as fermentation medium using yeast to produce bioethanol, which is known currently, as an important renewable energy source. At first, the lactose, main sugar in cheese whey, must be enzymatically hydrolyzed into fermentiscible sugars, glucose and galactose. Then the yeast strain was isolated from soil and further identified by morphological, physiological, biochemical and molecular characteristics. In addition, the operating parameters of fermentation such as temperature, pH and substrate concentration were optimized. As results, the phenotypic and genotypic data indicated that our isolate strain belonged to *Saccharomyces cerevisiae*. Furthermore, the operating parameters of fermentation, such as, temperature 30, pH 5 and 20% (w/v) of sugar concentration are considered as optimum values to give best bioethanol production yield.

## **Biography**

Khaled Boudjema is preparing for his PhD at University of Boumerdes, Algeria. He is an Assistant-Teacher in department of Biology and Researcher in research laboratory of food technology at the same university.

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