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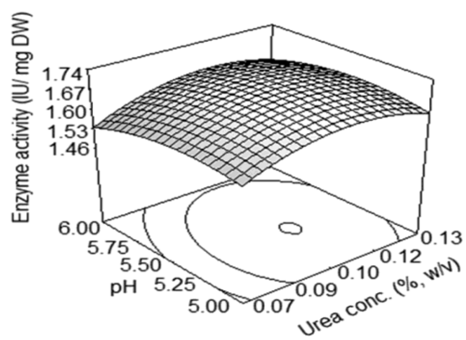
Management & Information Technology

S & T and Industrial Research

81 **Statistical Modeling of *β*-Galactosidase Production from Novel Yeast Isolate Using Cheese Whey**

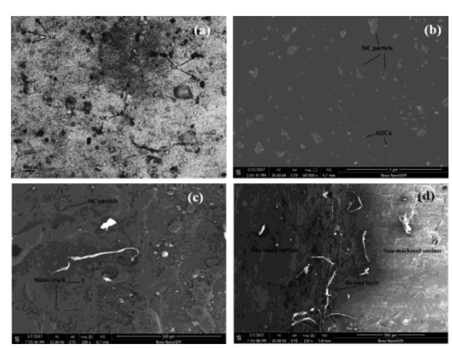
Whey, a liquid component remaining after milk fat and casein have been separated from whole milk, is one of the major disposal problems of the dairy industries. To overcome this problem, biotechnologically a better alternative is subjecting the whey to processes through which the value added products can be formed. In the present investigation, Response Surface Methodology (RSM) was applied to optimize the different process parameters for *β*-galactosidase production from whey based medium using novel yeast isolate. The concentration of yeast extract, urea, pH, incubation time and temperature has shown significant effect on the production of the *β*-galactosidase. The maximum enzyme activity of 1.73 IU/ mg dry weight was observed under the optimized fermentation conditions. Thus, the processing of whey into useful products not only results in reduction of environmental pollution but also helps in the preparation of valuable products in a very cost effective manner.



S Kumari, P S Panesar, R Kaur & M B Bera

86 **Multi-Objective Decision Making Optimization for Electro Discharge Machining Process of Al-4.5Cu-SiC Composite Using Fuzzy-Topsis**

In this paper, discuss the performance of Fuzzy-Topsis in electro discharge machining process on ex-situ developed Al-4.5Cu-SiC composite material. The design of experiment for this experiment was planned by response surface method and investigate the sensitivity of different EDM performance attributes in the variation of multiple process parameters such as pulse on, peak current, duty cycle and weight fraction of SiC_P. Scanning electron microscope (SEM) analysis is conducted to see the particle distribution and EDM surface quality of the developed specimen. The results indicate that the duty cycle is the most influential factor and pulse on time is the less influential factor in this problem.



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