

Bio-ethanol; A renewable energy source from waste of beer industry

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The current depleting fossil fuel reservoirs are creating alarming situation for future Energy requirements. Renewable energy resources are considered one of the important alternative to the future energy prices. Biofuels are among those alternative resources that are considered vital to replace the fossil fuels. Biofuels, including bioethanol has been produced from plants and other food crops. The application of primary feedstocks for producing biofuels has been limited by three major factors: high cost of feedstock, processing cost of such materials, and food deficiency problems. Therefore, there is a big need to explore alternative, cheap and raw resources for production of biofuels. In the current study, we have explored the potential of waste of beer fermentation broth (WBFB) for production of bio-ethanol through yeast fermentation. The system effectively produced bio-ethanol in appreciable quantities that was determined through ethanol assay kit using UV-spectrophotometer. Furthermore, we focused on using a cell free enzyme system to increase the bioethanol yield. The system was impressive and provided good signs for future enhancement. With further developments and operational designing, this system can be effectively employed for industrial-scale bio-ethanol production.

Biography:

Dr. Mazhar has completed his PhD at the age of 29 years from Kyungpook National University remained as Post Doctoral Fellow and contract professor in same institute for two years, respectively. He is the chairperson of Chemical Engineering department, Dhofar University, Salalah, Oman. He has published more than 40 Journal papers in reputed journals and has been serving as an editorial board member of reputed Journals.