



International Journal of Advanced Research in Biology, Ecology, Science and Technology (IJARBEST)
Vol. 2, Special Issue 8, February 2016 in association with
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, VIRUDHUNAGAR
DEPARTMENT OF BIOTECHNOLOGY

ORGANIZES

DBT, NEW DELHI SPONSORED NATIONAL LEVEL CONFERENCE ON CONTEMPORARY TRENDS IN
BIOENERGY AND GREEN TECHNOLOGY: CHALLENGES AND OPPORTUNITIES [ORA-2016]
(25-26TH FEBRUARY 2016)

COMPARATIVE STUDIES ON L- GLUTAMINASE PRODUCTION BY SOLID STATE FERMENTATION

R. UMA, R. PAAVALAN, Dr. K. RAVI SHANKAR*

Bharathidasan Institute of Technology, Anna University, Tiruchirapalli -24

*Corresponding Author: E-mail: ravichembio@gmail.com ; Ph: 9894491432

ABSTRACT:

L-Glutaminase is an amidohydrolase enzyme that catalysis the deamidation of L-glutamine to L-glutamic acid and ammonia. This is an essential enzyme for the synthesis of various metabolic intermediates. Recently glutaminase has received attention owing to its potential application in medicine as an anticancer agent. L-glutaminase is extensively used as anti-leukemic agent. In the present study, L-glutaminase was produced from the bacterial species *Pseudomonas aeruginosa* KRS7. Solid state fermentation was followed in this study for the enzyme production using different agro-industrial and fishery byproducts. At optimum pH and temperature, maximum yield of L-glutaminase was obtained. Then, the enzyme was subjected to partial purification by aqueous two-phase extraction using polymer-salt system.

Keywords: L-Glutaminase; *Pseudomonas aeruginosa* KRS7; Solid state fermentation; polymer-salt system

IJARBEST
Research at its Best !!!