



Alpha 1, 5- L endo-arabinanase production media formulation and optimization using cost effective substrate

Sindhu Shetty K¹, Ajith Madhavan¹, Sreejith Ben C S¹, Lekshmi R¹,
Binal S. Kumar¹, Govind K¹, Aswathy S¹, Shanmugham S²

¹Amrita School of Biotechnology Amrita Viswa Vidyapeethom, Amritapuri, Kollam,
Kerala, 690525,India

²LRG Government Arts and Science, Tirupur, Tamilnadu, India

Abstract: A new, cost effective media was formulated with soy chunk powder (SCP) as the nutrient source. Growth parameters such as temperature, pH and substrate concentration were optimized. Temperature of 30⁰C, pH of 4 and 1.5% (w/v) of substrate concentration, constitute the optimal condition for the maximal production of the enzyme. The enzyme production peaked in the 5th day of incubation with a maximal enzyme activity of 1.218 U/mg which is 42% as efficient as production in media employing pure substrate. *Aspergillus niger* isolated from the soil samples collected from the precincts of the campus was employed in the current study.

Keywords: Alpha1, 5- L endo-arabinase, debranched arabinan, Azurin cross linked debranched arabinan, Soy chunk powder.

Sindhu Shetty K *et al* /Int.J. ChemTech Res. 2016,9(2),pp 40-45.
