

**Polyphenol oxidase from fruits of Indian Date (*Ziziphus Jujuba*):
Purification and characterization**

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Abstract

Polyphenol oxidase (PPO) is a copper containing enzyme extracted and purified from the fruits of Indian Date (*Ziziphus Jujuba*), which is fruit-bearing plant widely distributed in South India. The extraction and purification were carried by salt precipitation and two chromatography techniques (ion-exchange and gel filtration). The biochemical characteristics exposed that the PPO from banana has a high affinity to catechol at an optimum pH of 6.0. The enzyme had a most favourable temperature of 38⁰C and was moderately stable at 54⁰C with almost 78% activity within one hour period. PPO of banana was strongly inhibited by ascorbic acid. The data obtained in this study helps to better understand the fruit browning in *Ziziphus Jujuba* L.

Keywords: polyphenol oxidase, *Ziziphus Jujuba* L., purification, characterization.