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Enzyme kinetics in *Ficus carica*.L, cv. 'Sabz'

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Abstract

There is a growing request for enzymes in the universal market. Proteases are among the most industrial commanded enzyme, included animal proteases (trypsin and pepsin), microbial proteases (bacterial, fungal and viral proteases) and plant proteases (papain and ficin). The upward requirement for biologic-based enzymes, in the food industry, made them an interesting subject for biochemists. But, their sensitivity to extreme conditions causes some restrictions. We examined the fig leaf protease stability at a range of pH (2, 3, 4, 5, 6, 7, 8) and temperature (30, 40, 50, 60, 70, 80 and 90 °C). According to our result, the optimal temperature for fig leaf proteases activity was 30 °C. The optimal pH for the leaf extract protease activity was 4. The findings revealed protease obtained from fig is a probable candidate to be used as a natural food stabilizer.

Key words: Enzyme stability; Fig; pH stability; Protease activity; Thermal stability

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