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Anthocyanin stability kinetics in *Ficus carica*.L, cv. 'Shah anjir'

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Abstract

Anthocyanins are water-soluble pigments bringing a distinct color, from pink, red, violet, to dark blue (by pH rises). Anthocyanins are present at high concentrations in various plant derived products. Anthocyanins noticed for their potential anti-oxidant and anti-inflammatory activities to improve human health and reduce risks of diseases. One of the main limit the industrial application of anthocyanins is their instability during storage and processing. The degradation of anthocyanins during thermal process and storage can be enhanced by light conditions. In the present research, fig leaf extract was studied to examine the thermal stability of anthocyanins. To extract leaf anthocyanin leaves were ground with acidic methanol and the absorption was read at 530 and 670 nm. Extract containing anthocyanins was heated (10, 20, 30, 40, 50, 60, 70, 80, 90 and 100°C) under different pH (2, 3, 4, 5 and 6) and light conditions (light and dark). Fig anthocyanin extracts were more stable under pH 4 and 5, temperature 20 and 30° C, both dark and light conditions. The findings revealed fig anthocyanin is a probable candidate to be used as a natural food colorant.

Key words: anthocyanin, temperature, light, pH

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