

Title Anthocyanins characterization of 15 Iranian pomegranate (*Punica granatum* L.) varieties and their variation after cold storage and pasteurization

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Abstract

Anthocyanins (ACs) are phenolic compounds that are distributed widely in fruits and vegetables. Apart from imparting color to plants, ACs also have an array of health-promoting benefits. In this research, the amounts of major ACs of 15 pomegranate (*Punica granatum* L.) varieties obtained from Yazd province were determined. The major ACs detected in the studied varieties were as follows: delphinidin 3-glucoside (2.19–16.29 mg/L), delphinidin 3,5-diglucoside (2.36–63.07 mg/L), pelargonidin 3-glucoside (0.26–1.36 mg/L), pelargonidin 3,5-diglucoside (0.01–8.11 mg/L), cyanidin 3-glucoside (5.78–30.38 mg/L), and cyanidin 3,5-diglucoside (4.39–166.32 mg/L). The effect of storage time of unprocessed and pasteurized juices on ACs content of four selected varieties was also studied. Average degradation percentage of each AC was between 23.0 and 83.0% during 10 days at 4 °C. Moreover, in pasteurized juices average degradation of ACs was $42.8 \pm 0.5\%$ after 10 weeks storage at 4 °C.

<http://www.springerlink.com/content/bqh44427r2572538/fulltext.pdf>