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Czech J. Food Sci.

Qin C., Li Y., Niu W., Ding Y., Zhang R.,

Analysis and characterisation of anthocyanins in mulberry fruit

Czech J. Food Sci., 28 (2010): 117-126

The fruit of mulberry (*Morus alba* L., Moraceae) has been used as medicinal food in China for a long history. The pigment from the fruit extract is a kind of natural colourant for food processing and has potential medical and commercial values. This study focuses on the analysis and characterisation of anthocyanins from mulberry pigment. The fresh mulberry fruits were extracted with the solvent of 95% alcohol/0.1% HC 1 (1:1, ratio) at room temperature for 4 h in the dark. After the isolation using C-18 column, the pigment was identified with UV-Visible Spectroscopy, HPLC-PAD, LC-MS, and HNMR. The results showed that the abundant anthocyanins in mulberry pigment are cyanidin 3-*O*-rutinoside (60%) and cyanidin 3-*O*-glucoside (38%). The minor anthocyanins (totally 2%) are pelargonidin 3-*O*-glucoside and pelargonidin 3-*O*-rutinoside.

Keywords:

anthocyanin; mulberry fruit; spectroscopy characteristics; stability

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