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Czech J. Food Sci.

Cai W., Gu X., Tang J.: Extraction,

Purification, and characterisation of the flavonoids from *Opuntia milpa alta* skin

Czech J. Food Sci., 28 (2010): 108-116

The flavonoids contained in *Opuntia milpa alta* skin were extracted, purified, and identified. Based on single factor experimental results, the extraction parameters were optimised by using orthogonal design and variance analysis. The results show that the maximum yield of the flavonoids (5.55 mg/g dry weight) can be obtained with 80% ethanol (v/v), extraction temperature of 90°C, and the solvent to raw material ratio of 25:1. After purification with AB-8 resin, the main components of the extract were characterised as isorhamnetin 3-*O*-(2, 6-dirhamnosyl)glucoside and isorhamnetin 3-*O*-*d*-rutinoside by employing liquid chromatography-mass spectrometry and ultraviolet-visible spectrometry.

Keywords:

Opuntia milpa alta skin; flavonoids; extraction; LC-MS; isorhamnetin 3-*O*-(2, 6-dirhamnosyl)glucoside; isorhamnetin 3-*O*-*D*-rutinoside

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