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农产品辐照研究 • 食品科学

山核桃仁多酚组分分析及抗氧化研究

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摘要： 以山核桃仁多酚为原料,通过酸水解分析仁多酚内可能含有的有机酸成分,结果表明,仁多酚干物质经脱糖苷之后,可以形成自由的酚酸,检测到没食子酸及绿原酸含量分别为18.2mg • g^{-1}及246.7mg/g干物质;同时山核桃仁多酚干物质进行体外抗氧化分析表明,仁多酚具有较高的抗氧化活性,对DPPH自由基和 • OH自由基清除率较高,其抗氧化能力一定范围内与VC及BHA相当。

关键词： 山核桃 仁多酚物质 抗氧化分析 水解实验 高效液相色谱

THE ANALYSIS OF CHEMICAL COMPOSITION AND ANTIOXIDANT ACTIVITIES OF PHENOLIC COMPOUNDS FROM CARYA (*CARYA CATHAYENSIS*) KERNEL

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Abstract: The composition of phenolic acids from the acidic hydrolysis of polyphenols of *Carya cathayensis* kernel was analyzed. Several free phenolic acids had been found from polyphenols of *Carya cathayensis* kernel after the removal of sugars. Among them, contents of gallic acid and chlorogenic acid were 18.2mg 穩$^{-1}$ and 246.7mg 穩$^{-1}$ of dry matter, respectively. In vitro antioxidant activity assessment showed that the polyphenols of *Carya cathayensis* kernel had high antioxidant activity. The scavenging capacities of these polyphenols for DPPH and 稷H free radicals were comparable to those of VC and BHA.

Keywords: *Carya cathayensis* kernel polyphenols antioxidant analysis hydrolysis experiment HPLC

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