Characterization of Biofunctional Materials Obtained from Omija(Schisandra chinensis) Using Subcritical Water Hydrolysis

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Omija (Schisandra chinensis) is a plant belonging to the magnoliaceae family. Previous researches reported that 80% of the main beneficial compounds of omija fruit are contained in seeds. Therefore, it is difficult to get more than 80% of the beneficial ingredients contained in seeds by consuming only the flesh of the fruits as tea or drink. Although consumption of omija has several pharmacological effects such as antioxidant, alcohol detoxifying action and hepatic protection, information about extracting and utilization of useful components from the seeds of omija is very limited. In this study extraction of omija(fruit, seedless skin and seed) was carried out temperatures from 140℃ to 200℃, and pressure of 30 bar. Among the hydrolysis conditions, the highest yield was obtained at 200℃, and the whole fruit, seedless skin, and seed were 80.82%, 83.13%, and 69.83%, respectively. Total phenolic contents, total flavonoid contents, antioxidant activity were measured. Moreover, total glucose content, water-soluble protein content and total tannin content were determined.