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EVALUATION OF PHENOLIC COMPOUNDS CONTENT IN GRAPE SEEDS

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Abstract

There is an increasing interest in the food industry and in protective health care for the expansion of natural antioxidants from plant materials. The solid wastes generated by the winemaking industry represent about 30% of the material used and it consists mainly of grape pomace (containing seeds, pulp, stem and skin). It is well known that high quantities of valuable compounds like dietary fibre, oils from the seeds, anthocyanins and phenolic compounds still remain within the grape marc. The phenolic compounds have great potential due to their antioxidant capacity and health benefits to prevent coronary problems and other chronic diseases: cancer, diabetes or neurodegenerative issues. Based on this evidence the evaluation of the polyphenols concentration of grape pomace, a by-product of winemaking, might be of great importance. The aim of this work was to determine by using a HPLC method, the amounts of phenolic compounds in six experimental and unconventional aqueous and ethanolic extracts, from grape marc and its components, and to evaluate the ability to obtain extracts for pharmaceutical uses. The results showed that all the grape marc extracts showed remarkable amounts of polyphenols and that supercritical fluid extraction method was the most efficient.

Key words: antioxidants, extraction methods, grape pomace, phenolic compounds

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