Flavonol Glycosides from Distilled Petals of *Rosa damascena* Mill.

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Flavonol glycosides were extracted from petals of *Rosa damascena* Mill. after industrial distillation for essential oil recovery and characterized by high-performance liquid chromatography-electrospray ionization mass spectrometry. Among the 22 major compounds analyzed, only kaempferol and quercetin glycosides were detected. To the best of our knowledge, the presence of quercetin 3-*O*-galactoside and quercetin 3-*O*-xyloside has so far not been reported within the genus *Rosa.* In addition, based on their fragmentation patterns, several acylated quercetin and kaempferol glycosides, some of them being disaccharides, were identified for the first time. The kaempferol glycosides, along with the kaempferol aglycone, accounted for 80% of the total compounds that were quantified, with kaempferol 3-*O*-glucoside being the predominant component. The high flavonol content of approximately 16 g/kg on a dry weight basis revealed that distilled rose petals represent a promising source of phenolic compounds which might be used as functional food ingredients, as natural antioxidants or as color enhancers.

Key words: Rosa damascena, Flavonols, HPLC-MS