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Comprehensive evaluation of solubilization of flavonoids by various cyclodextrins using high performance liquid chromatography and chemometry

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ABSTRACT

Flavonoids have many pharmacological activities, but the water solubility is poor, Cyclodextrin (CD) can be used to increase the solubility of flavonoids through making flavonoids into their cavities. While various CDs have different solubilization effects on flavonoids. Therefore, the purpose of this study was to evaluate the solubilization of flavonoids by three classes of cyclodextrins by Chemometrics (I native CDs: alpha-cyclodextrin (α -CD), beta-cyclodextrin (β -CD) and gamma-cyclodextrin (γ -CD); II hydrophilic CD derivatives : methyl- β -cyclodextrin (Me- β -CD) and 2-hydroxypropyl- β -cyclodextrin (HP- β -CD); III ionic CD derivative:

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