

RAPIDLY SEPARATED CHRYSOPHANOL FROM TRADITIONAL MEDICINAL HERBS BY USING SUPERCRITICAL CARBON DIOXIDE

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The purpose of this project is to purify and characterize Chrysophanol in traditional herb by supercritical fluid extraction (SFE). In order to find the best operation condition, various factors such as temperature, pressure, different modifiers were discussed. Containing the hydrophilic glycoside, Rheum is a traditional purgative. The hydrophilic glycoside is traditionally extracted through hot water extraction or alcohol extraction. Previously, most studies focused on the chemical composition of the purgative and few have noticed its hydrophobic constituents. To extract the hydrophobic constituents such as chrysophanol, the traditional extraction method requires extended time for purification. The study attempted to extract the hydrophilic chrysophanol in the largest quantity possible and in the shortest time possible by utilizing the properties of supercritical CO₂.