

عنوان مقاله:

Improved Dissolution and Optimization for the Efficient Extraction of Silymarin

محل انتشار:

هشتمین همایش بین المللی طلای سبز (سال: 1398)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Milk thistle (*Silybum marianum* L.) is an excellent source of silymarin used as an antioxidant. Moreover, improve liver function and lows cholesterol level However, the low solubility of silymarin in water makes it easy to absorb the intestines and eliminate it from the body without the benefit of the patient. The effects of three independents variables in terms of extraction time, temperature, Acetone ratio on the silymarin yield were determined and the optimal conditions for silymarin were evaluated by means of response surface methodology. This study compares the extraction of whole and defatted milk thistle seeds by acetone solvent and it has reported the effective parameters in this stage. The optimal extraction parameters to obtain the highest total phenolic yield were time duration of 60 min, temperature of 112 °C and 95% solvent concentration. On the other hand the average experimental silymarin yield under the optimum conditions was found to be 30.04 %which agree with the predicted value of 28.80%. Polymer (A) have been successfully used to boost the aqueous solubility of silymarin. however, their simultaneous influence on the aqueous solubility of silymarin has not been reported yet. With this procedure after adding the polymer, solubility .increased significantly from 0.03% in water to 30%

کلمات کلیدی:

(Extraction, Silymarin, Optimization, Dissolution, Polymer, Response surface methodology (RSM

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