عنوان مقاله:

Prediction of trans-anethole extraction yield from Pimpinella anisum seeds using ANN

محل انتشار:

پنجمین کنفرانس بین المللی پژوهش کاربردی در شیمی و مهندسی شیمی با تاکید بر فناوری های بومی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

In this study, the extraction of trans-anethole (t-anethole) using subcritical water solvent was employed as a case-study. A feed-forward multilayer back propagation artificial neural network (ANN) with various train algorithms and number of neurons was considered for the prediction of t-anethole extraction yield (mg/g dry sample). The input variables were temperature (100-175oC), flow rate (0.5-4ml/min), mean particle size (0.25-1mm) and output was t-anethole extraction yield. The optimized structure of neural network is manufactured based on minimum mean square error (MSE) of training and testing data. The optimal ANN model consisted of one hidden layer andfive neurons. The Prediction of t-anethole extraction yield using the ANN model was proven to be an accurate, appropriate, and simple method

کلمات کلیدی:

trans-anethole, extraction, subcritical water, ANN model.

لینک ثابت مقاله در پایگاه سیویلیکا:

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