

Abstract

To achieve maximum efficiency in more optimization condition, experts estimate accurately the efficiency of existing methods will be convinced. In this study artificial neural network(ANNs) models is used to estimate yields essential *Diplotaenia Cachrydifolia* using supercritical fluid. For this purpose, the best combination of input temperature, pressure, time and volume of modifier was selected. learning Artificial neural network and estimateing with the help of a mathematical structure, it is able to display arbitrary combinations of non-linear process and the link between inputs and outputs Each system is capable . The lab data that was recorded during the learning network, trained and expected to have predict unknown data is used. Performance Evaluation of coefficient of determination (R^2) and mean square error (MSE) to evaluate the performance of the developed models were applied to $0/9838 R^2 =$ and $MSE = 0/0088$ are shown. The results showed that the model based on statistical criteria Marco Marquardt has the best performance. Comparison of estimated and measured values show good performance of the neural network model yields *Diplotaenia Cachrydifolia* are estimated

Key words : Supercritical fluid Extraction, *Diplotaenia cachrydifolia*, Neural
Network



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**Essential oil Extraction from *Diplotaenia
Cachrydifolia* using Supercritical Fluid
Carbon Dioxide and yields predictions with
neural networks**

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