

ABSTRACT

Temulawak is one of the plants used a lot of people as medicine and often also be used as the raw materials made and pharmaceutical industry. Kurkumin is a compound that found in temulawak, the search information on the content of kurkumin temulawak using the Fourier Transform Infrared (FTIR) produce data with the dimensions of a very large and each correlated. The reduction dimensions of the data is one of the technique done to reduce dimensions (size) of the data too big. The transformation Wavelet Diskret (TWD) were able to reduction of those dimensions are high correlated so that generates changes with dimensions smaller than ever of 1024 to 500 dimensions. But the results of the reduction is still produces a changes high correlated, then it needed to takes method reduction other namely Principal Component Analysis (PCA). PCA's method reduction the results of the data of TWD reduction be 15 dimensions. The calculations value Root Mean Square Error of Prediction (RMSEP) states that the calibration model of the reduction by TWD-PCA gived results with error of 0.021046 .

Keywords: *Discrete Wavelet Transform, Principal Component Analysis, Calibration model.*