

MODELLING SORPTION ISOTHERMS OF LAFUN AND SOYFLOUR USING A SPREADSHEET

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Abstract

Spreadsheets are versatile tools that can be used for preparation, plotting and analysis of data. One of such spreadsheets that is readily available on personal computers is Microsoft Excel. A Microsoft Excel template for computing the GAB constants was developed and tested with experimentally determined sorption data for lafun and soyflour each at temperatures of 25, 32 and 45°C. Lafun is a cassava product while soyflour is obtained from soybean. The experimental equilibrium moisture content for lafun and soyflour were determined for water activity ranging from 0.1 to 0.96 at each temperature. The results obtained showed that the GAB model is a good fit for the various experimental data. It was also shown that Excel gave the similar result as two other statistical software namely SPSS and STATISTICA.