

Chaves, M. A., & Baptista, F. J. (2012). Software for the calculation and modeling of effective diffusivity during osmotic dehydration. *Journal on Processing and Energy in Agriculture*, 16(4), 133-141.

This paper concerns a comprehensive and graphic computer program for the calculation of effective diffusivities and Fick's Law model adjustment. The program was designed to be applicable to situations in which solid materials, with a specific geometry (cubes, infinite planes, spheres, infinite cylinders) and a given initial concentration are immersed in a solution with high and constant concentration. Shrinkage can be taken into account. Detailed statistics about calculated average diffusivity and model adjustments to observed data can also be calculated. Some experimental results were used to show the software's applicability. The agreement between the outputs from the software and data from the literature were excellent and consistent. The software can be used for simulations and in the analysis of the effect of the number of terms in a series and a model's agreement with experimental data. The program also has a potential of being exploited for educational purposes.