International Journal of ChemTech Research
CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.10, pp55-59,2017

Effect of drying method on total phenolic content of apple (Golden delicious) slices

Samira Talebpour[1], Susan Khosroyar[2]*, Peiman Alesheikh[3]

[1,2]Chemical engineering Department, Quchan branch, Islamic Azad university, Quchan, Iran
[3]Natural Products & Medicinal Plants Research Center, North Khorasan University of Medical Sciences, Bojnurd, Iran

Abstract: Drying is one of the most common ways to preserve agricultural products. The main purpose in drying fruits is to reduce their water activity, losses and transportation costs since most of the water are taken out from the product during the drying process. Apple is one of the major fruits consumed all over the world and it has an important role in the human healthy because it is one of the best sources of bioactive compounds. Due to a high level of water in apples, they need to storage in specified conditions or drying for reducing water activity to decrease of microbiological activity. The aim of this study was to evaluate the effects of different drying methods (air drying, sun drying, oven-drying, cabinet drying and microwave drying) on the total phenolic contents of apple slices. Drying methods have significant effects on the total phenol contents. Apple slices were dried by oven drying at 70 º C and oven drying at 50 º C methods had the highest and lowest amount of phenolic contents respectively. In conclusion, it can be suggested that special care should be taken when preserving food for later use.
Keywords:drying methods, apple slices, phenolic content.

*****