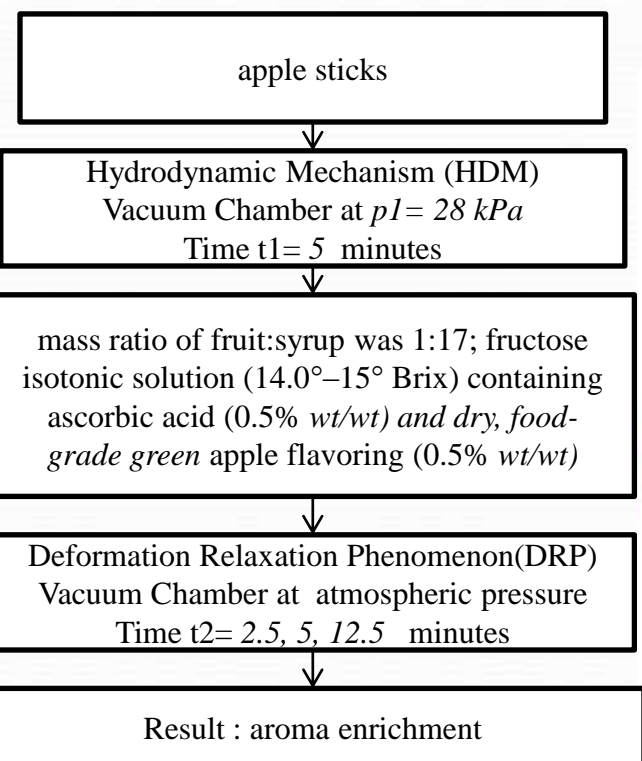


Vacuum Impregnation to modify physico chemical properties and sensory attributes of apple sticks

Raw Material	Composition of Vacuum Impregnation Solutions	Process Parameters	Effect
apple sticks	mass ratio of fruit:syrup was 1:17; fructose isotonic solution (14.0°–15° Brix) containing ascorbic acid (0.5% wt/wt) and dry, food-grade green apple flavoring (0.5% wt/wt)	$p1$ 28 kPa $t1$ 5 min $t2$ 2.5, 5, 12.5 min	aroma enrichment

Flow Chart



Vacuum Impregnation Setup



**DOWNLOAD
CATALOG**

Result:

Aroma enrichment. It seems that vacuum impregnation is an effective method for inhibiting enzymatic browning. However, sometimes it provides a similar effect as soaking of raw material in a solution of inhibitors at atmospheric pressure. The effectiveness of this method in relation to inhibition of changes in color of fruit and vegetables resulting from enzymatic browning may be connected with the tissue structure, the type of used inhibitors and the conditions of vacuum impregnation. Literature sources also describe the effect of vacuum impregnation on modification of sensory attributes of the product, such as aroma or taste. An example in this respect is given in a study by Comandini et al. (2010)