

Characterization and Classification of Foods by Texture of Food

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Abstract

The texture of 112 food samples was characterized and classified by means of multi-variance analysis, in order to obtain one index of chewing instruction. The texture of food samples was measured by Tensipresser. Characterization and classification of foods was performed from principal component analysis of the texture of food. Food samples with higher chewiness (1.00 or more) relevant to masticatory muscle activities were 30% or less. By means of principal component analysis, 111 of food sample investigated were classified into nine food groups as follows. Basic food sample group: hardness and springiness are low. Group I foods: hardness is high, Group II foods: hardness and springiness are high. Group III foods: springiness is high. Group I was further classified into two sub-groups. Group II and III were further classified into three sub-groups. Some food samples with higher chewiness were belonged to Group I-2 and Group II-1, 2, 3.